

December 2005/\$4

# AIR FORCE

JOURNAL OF THE AIR FORCE ASSOCIATION

MAGAZINE

**For Fighters, a Moment of Truth**



**Where BRAC Came Out  
The Information Battleground  
Farm Gate**



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December 2005, Vol. 88, No. 12

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**About the cover:** An F/A-22A Raptor operating from Nellis Air Force Base is seen over the Nevada test range. See "For Fighters, a Moment of Truth," p. 26. Photo by Katsuhiko Tokunaga/DACT Inc.

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By Robert S. Dudney, Editor in Chief

## Four in a Row

The Pentagon's first three post-Cold War strategic reviews—staged with great fanfare in 1993, 1997, and 2001—generally have been viewed, and accurately so, as budget-cutting drills without much supporting analysis. Things were supposed to be different the fourth time around.

A year ago, officials pledged that the 2005 Quadrennial Defense Review, now nearing an end, would assess US forces and policies and let facts dictate the conclusions. DOD first would establish the requirements, it was said, with budgets to come later.

That, as they say, was then, and this is now. Today, there is much evidence to suggest that QDR 2005 has mutated into something fairly familiar: a search for a way—any way—to clamp down on military spending.

Item: In December 2004, Pentagon officials stunned the armed services with a measure known as Program Budget Decision No. 753. It slashed \$55 billion from spending plans, striking hard at the Air Force and Navy before the Pentagon had done much analysis.

Item: In an Oct. 19 memo, Gordon R. England, the acting deputy secretary of defense, instructed the services to find ways to lop another \$32 billion from Pentagon spending over the next several years. The Air Force was nominated to give up \$8.6 billion.

Item: In a July 29 interview with Bloomberg.com, Ryan Henry, a senior QDR official, declared, "We are going to stay within the [spending] guidelines the President's budgeting folks have given us."

These developments have generated concern among defense-minded figures on Capitol Hill. Rep. Duncan Hunter (R-Calif.), chairman of the House Armed Services Committee, worries the QDR will wind up stating what the services think they will be *permitted* to spend, not what they *need* to spend.

In response, Hunter has launched a companion defense review. A participant, Rep. Randy Forbes (R-Va.), told *Defense News* that the panel has drawn "a line in the sand" aimed at protecting "our conventional capabilities" from unjustified reductions.

No one claims that money considerations alone are driving the QDR. However, finances are compounding other pressures coming down on the services. Nowhere is this more evident than in USAF's effort to preserve its F/A-22 fighter program.

At the outset of the QDR, the Air Force was emphatic about its need for adequate numbers of F/A-22s. To preserve funding for 381 of them—considered the minimum fleet size—USAF

**Will this QDR wind up stating what the services think they will be permitted to spend, not what they need to spend?**

was prepared to give quite a bit of blood. In pre-QDR action, the Air Force announced plans to cut its overall fighter force by 25 percent and overall aircraft fleet by 10 percent. This concept was designed to save funds with a smaller, more-efficient, and more-lethal fleet.

USAF also set about a major restructuring of Air National Guard units, and it agreed to take down the active force by another 10,000 troops. That's not all. USAF was prepared to sacrifice some 600 of a planned fleet of 1,800 F-35 fighters.

Air Force officials hoped that these steps would ward off further cuts to its premier fighter program, but it was not to be. Almost immediately, the Pentagon slashed \$10 billion and 100 fighters from the F/A-22 program. The Air Force in the past year has repeatedly argued for restoration of the cut, without visible effect so far. DOD obviously believes that the savings will help offset increased expenditures in other areas.

In addition, all signs are that more "efficiencies" are on the way. Last summer, England launched a military-wide fighter review aimed at "optimizing" the force, and Air Force observers have voiced wide-ranging concerns about what it might mean for the USAF fleet—perhaps "consolidation" of fighter aircraft from all of the services. England

ordered that findings of the first phase of the military-wide fighter review be completed in time to help shape the Defense Department's 2007 budget.

All along, Pentagon officials have wanted to use the QDR to truncate or terminate programs they believed to be useless in the global war against elusive terrorist networks, and fighters were among those targeted. Rather than spend more on "traditional" mission areas, they said, the US should spend more to combat so-called irregular, disruptive, and catastrophic threats.

The impulse to cut traditional forces ignores certain realities.

First, the burden of defense spending on the taxpayer is still reasonable, by historical standards. The Pentagon has estimated its 2007 budget at \$443.1 billion, rising to \$502.3 billion by 2011. Even a \$600 billion Pentagon budget would consume only five percent of the nation's \$12 trillion Gross Domestic Product, less than at any time in the Cold War.

Second, "traditional" threats are alive and well. Pentagon planners have included in the QDR three major combat scenarios—most particularly China. "The enhancements ... of the Chinese military [do] cause concern," Gen. T. Michael Moseley, USAF Chief of Staff, told the Senate Armed Services Committee.

In general, the QDR is not the best place for preparing detailed budgets. It is intended to provide a broad, 20-year view of DOD needs and not delve deeply into programs. It would make quite a lot of sense to give each service a budget figure, and then let uniformed leaders forge the most workable plans.

The real issue is not even so much the size of the budget, but whether the defense program as planned and projected is adequate to provide for national defense. Getting that part right is critical. It is a legitimate task for Pentagon civilians, working in close cooperation with the armed services and Congress.

DOD failed to do it this way the first three times it tried. One hopes the Pentagon will not make it four in a row on this score. ■



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## Differing Total Force Views

Rebecca Grant's otherwise superb article "Total Force Turbulence" [October, p. 44] failed to identify what put the turbulence into afterburner. On unlucky Friday the 13th of May 2005, the Secretary of Defense transmitted to the commission BRAC recommendations intentionally known only to those who had signed a nondisclosure agreement on their contents, but to the complete surprise of the Air Guard commanders, adjutants general, governors, and Congressional delegations, who legally and logically, if not full participants, should have at least been forewarned under openness provisions of the BRAC law.

The chief of the National Guard Bureau and the ANG director signed the nondisclosure agreements, which bound them even if they were assigned to other duties or retired.

The traditional Air Guard units have concurrently flown sophisticated weaponry more safely and more economically than the active Air Force and begged for more crew augmentations. The Air Guard rejects the stealth strategy in the BRAC process, as more appropriate to use on the enemy.

Hopefully the Congressional Commission on National Guard and Reserve, going into action in November, will reverse the "hard process" of federalizing the Air National Guard, which is of highly questionable legality, because, as General Wood summarizes in the end of the article, "We need to do it right and so we need to do it together."

Brig. Gen. William W. Spruance,  
USAF (Ret.)  
Las Vegas

If General Jumper thinks his BRAC fiasco has caused only "disagreements out there with a few adjutants general," he has a bad case of four-star isolation disease. There has not been such a sense of betrayal in the Guard since the Carter Administration. People fought hard for their country, interrupting jobs and family, and are rewarded by having their careers trashed. Oh, and flying drones won't recruit or retain pilots.

Lt. Col. Robert L. Farnette,  
ANG (Ret.)  
West Bloomfield, Mich.

If, as National Guard Bureau chief Lt. Gen. Steven Blum stated, the SECAF and Chief of Staff assured him the Air Force will not deny the Air National Guard "the opportunity to fly and operate any equipment" USAF develops and fields in the future, those senior officials are ensuring historic force-allocation missteps continue.

It appears USAF leadership would help our nation's governors by allocating all possible combat support specialties and tactical airlift for state emergencies to the Air Guard. General Blum can then place the force structure that USAF allocates to the Guard wherever he wants. Based on his "it's mine" attitude your coverage attributed to him, that should keep the general happy. USAF can then begin allocating all combat systems to the Air Force Reserve, which has a singular national-defense mission.

As an active duty company grader assigned to the Office of Air Force Reserve in the early 1970s, I witnessed the Total Force Concept become Total Force Policy. I also witnessed the Air Staff fumble force-allocation decisions associated with assigning missions to the air reserve forces. I am not the only USAF officer who, over time, has pondered just how the governor of New Jersey planned to use F-105s; or later, the Georgia governor's intentions with B-1s or E-8Cs; or, apparently still to come, the governor of Virginia and F/A-22s. [Will there be] a little urban renewal in Trenton, Atlanta, or Richmond?

Lt. Col. John Walmsley  
USAF (Ret.)  
San Antonio

After reading the subject article, I am

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left with the impression that ANG retains the "flying club" mentality and steadfastly resists change. Am I wrong?

Lt. Col. Gerald P. Hanner,  
USAF (Ret.)  
Papillion, Neb.

The October magazine is a must read for all members of the Total Air Force. The editorial succinctly identified the challenges faced by the Air Force and America. The choices are complex as national defense needs compete with other national needs for resources. The "Total Force Turbulence" article builds upon the editorial.

As the Total Force article detailed, the Air Force approach to BRAC and the interweaving of the Future Total Force Plan into BRAC recommendations was a train wreck reminiscent of the Army and Army Guard feud over the QDR of 1997. The lessons learned from that debate were lost on the Air Force and the National Guard Bureau. Simply stated, despite protestations to contrary, the lack of inclusion by USAF and NGB of all stakeholders has derailed the Total Force.

The timing of the FTF proposals is unusual. With the QDR and other studies under way, [making] the Air Force sweeping restructure plan a part of BRAC was a bad plan. The Total Force "chasm" appears not to be limited to a few adjutants general. In BRAC hearings, Congressional testimony, and editorials throughout America, the Air Force BRAC recommendation has, as Dr. Grant wrote, brought the service withering fire and broad condemnation. The governors and the adjutants general were not part of the FTF development and did not gain access to specifics of the FTF until December 2004. To date the ramifications of the FTF proposals for the ANG are not clear to the states or to Congress.

The report of the BRAC commission and its final recommendations support the argument that the savings projected were vastly overstated. In fact, 83 percent of the USAF BRAC recommendations pertained to the most efficient part of the Total Force, the ANG.

What's next? It is a hard process that's certain. We do need to do it right—and

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we do that by including all stakeholders as partners. The NGB is the channel of communication between DOD and the states. NGB must be given an equal voice and the flexibility to work the key issues of homeland security and the FTF. All FTF assumptions need to be vetted with the stakeholders. The FTF as presented is a leap into the future without a parachute! Instead of jumping, let's build a bridge that gets us to the future as one Total Force—a Total Force that retains the citizen airmen, community-based Air National Guard as a full partner.

Brig. Gen. Hugh T. Broomall,  
Delaware ANG  
Newark, Del.

I would like to offer a correction to Ms. Grant's article. On p. 46, she states, "States fund the salaries of most Guardsmen unless they are put on federal duty." Not true. This is a persistent misconception about the Guard. All members of the Guard are 100 percent federally funded, whether full time or traditional. The states do contribute to the maintenance of facilities under a master cooperative agreement with the federal government, but it is a very small contribution. In our case here in Richmond, the state contribution amounts to only about one percent of our total wing annual operating budget.

Why is this important to clarify? Because the Guard is frequently misunderstood by our active duty brethren; we are more akin to them than sometimes realized.

Lt. Col. Dave A. Kolmer,  
Virginia ANG  
Sandston, Va.

**Negative on New Fighters**

I applaud the efforts of Congress and DOD to slash the F/A-22 program. [See "Washington Watch: Rumsfeld Throws Wet Blanket on F/A-22 'Hopes,' " Octo-

ber, p. 14.] The Air Force can't manage the force they already have and ignores the aging tanker fleet and is absolutely blind when it comes to proper manpower force levels.

Air Force leaders would mortgage their soul to have their precious F/A-22 while ignoring other funding priorities. Fighter planes are extremely close to going the way of the dinosaur. An aircraft with an electrochemical laser data linked to an AWACS could rake the skies over an enemy battlefield of enemy aircraft for a fraction of the cost of an F/A-22 fleet. Similar craft could patrol the skies over North America for less money and far greater effectiveness.

Daniel W. Roberts  
Fryeburg, Maine

**A Great Mission**

The October issue brought back fond memories with "The ICBM Makeover" article [p. 34]. I was lucky enough to be selected as the mission commander for Glory Trip 19PA, August 1995, on one of our EC-135s out of Offutt AFB, Neb. We orbited all night off Vandenberg AFB, Calif., waiting for clearance to shoot [a Peacekeeper]. Once we got launch authorization and "missile away" indications, the crew rushed the flight deck to watch the missile arch overhead. I put my head on the console and gave thanks that my "please don't let me screw this up" prayer was answered. As to the lead photo, I was told it was the first "all airborne" launch and the first time they'd gotten all the RVs on a single frame of film at ground level. It and a picture of the launch hang on my office wall to this day. We barely made it in to Vandenberg as the California fog made the airfield disappear that morning. A great crew, great day, and a great mission.

Lt. Col. Kim Ellard,  
USAF (Ret.)  
Salcha, Alaska

**Ups and Downs of Counterforce**

Congratulations are in order for Mr. John T. Correll on his back-to-back excellent articles on the happenings of the Cold War. [See "The Ups and Downs of Counterforce," October, p. 58, and "The Air Force and the Cold War: A Chronology, 1945-91," September, p. 70.] He has presented us with some great old memories that we sometimes seem to forget. In both his articles, I relived some of the situations he talked about. Some I would rather not recall.

I was fortunate to be in SAC from 1954 to 1973 and from 1976 to 1980. The 90-day TDYs to North Africa, Newfoundland, Goose Bay, and the Azores to refuel the bombers going to England were hard being away from the family, but it was a very rewarding job. I remember during the Cuban Missile Crisis, I went to Ernest Harmon AFB, Newfoundland, with all the KC-97 tankers we had at Hunter AFB, Ga. If I remember right, there were 100 or more tankers.

During that era, we never got very much information at our level about the counterforce situations. But everybody in SAC knew what our mission was and where the bombers were going. We knew why the molehole (SAC alert facility) existed and was operational 24 hours a day, 365 days a year.

CMSgt. Donald W. Grannan,  
USAF (Ret.)  
Benbrook, Tex.

John T. Correll accurately portrays the old "counterforce" (hit nuclear military targets) vs. "countervalue" (hit enemy cities), but I think that "first strike" vs. "second strike" even more accurately portrays the long-term confusion. As in the case of guerrilla warfare, where it was long believed that a 10-1 superiority was needed to quell insurgencies, we used to believe that a 4-1 superiority was needed to destroy an enemy's strategic nuclear force.

Despite World War II, the US has always sought to portray its aversion to destroying cities, but "parity" in "first strike" capability was always impossible because both sides would need that 4-1 superiority. Thus, "parity" meant mutual deterrence based upon hardened or mobile nuclear forces that could survive attack and then hit enemy cities. The word "counterforce" hid the wistful hope that a real US first strike capability (4-1) would cow the Soviets.

This led me to suggest in a 1977 article that mutual deterrence might be useful in many world regions if it involved hardened missile sites and countervalue targeting, an idea that involved a few visits to the Army War College. There is hope that India and Pakistan can now

deter each other. Middle East peace requires a regional "deterrence partner" for Israel. "Rogue states" are best regionally deterred, not by a globalized US threat of preventive wars.

Air Force history is both clear and defensible. Strategic bombing, like land and guerrilla warfare in densely populated areas, erased combatant/noncombatant distinctions that "collateral damage" cannot restore. The real hope is that limits to resources may make wars impossible to fight.

Col. Frederick Thayer,  
USAF (Ret.)  
Pittsburgh

**Rescue at Kham Duc**

Several things came to mind while reading your well-written and interesting "Rescue at Kham Duc" article [October, p. 70]. I flew four C-130A sorties into Kham Duc on Aug. 24 and Aug. 25, 1970.

My good friend and fellow C-130A crew member, Bob Lake, was the navigator on Lieutenant Colonel Delmore's C-130A when it came to a sliding halt at Kham Duc on May 12, 1968. His account of the event had his crew taking cover in a ditch near their aircraft and looking for a way out. When a C-130E landed, they threw themselves onto the cargo ramp as it slow-taxied by their position. I believe he told me that it was the "last stage out of Dodge," which would have made it Major Van Cleeff's C-130 which had been tasked to return the CCT to Kham Duc.

Major Van Cleeff, at one point, had the impression that he would be making a CDS drop at Kham Duc. [Perhaps] the "upper-echelons" were considering a counteroffensive. If so, it certainly wouldn't be the first time that some nervous person jumped the gun for something that was never anything more than a discussion of options.

I dearly loved having a fully equipped CCT on the ground for austere and high-threat air-land operations. However, in my flying career I operated in and out of hundreds of "austere" airfields with no controlling or advisory ground contact. The decision to reinsert the CCT at Kham Duc is indefensible. That decision placed several tactical airlift crews needlessly in harm's way, and someone should have been made to answer for it.

As a side note, six days earlier, on May 6, I flew three sorties between Qui Nhon and A Luoi in the north end of the A Shau Valley in support of an Army "vertical-envelopment" operation. Although there was some AAA resulting in the loss of one C-130 and extensive battle damage to another, ground resis-



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tance was reported as light, consisting of mostly NVA housekeeping personnel and resulting in a considerable amount of equipment and supplies being captured and/or destroyed. It occurs to me that the reason resistance in the A Shau was relatively light was that NVA combat units may have been moved south for the attack on Kham Duc.

Lt. Col. David S. Harmon,  
USAF (Ret.)  
Greendale, Wis.

Your story about Kham Duc was a good story, but you omitted the role of flight Hammer 94, a flight of four F-4s that escorted the C-123 flight Bookie 771. I would like to tell the "other half" of the story. I led Hammer 94 in the late afternoon on May 12, 1968, and provided close air support with cluster bomb units and napalm as Bookie 771 made his landing to pick up the three survivors.

It was a challenging mission working under an 800-foot overcast, with less than "bingo" fuel for my flight, while timing protection of Bookie 771 at the same time. Our mission had us fragged to meet with a KC-135 tanker, but the tanker had expended all its off load fuel and returned to base. I told Hillsboro C-130, the ABCCC airborne battle field commander General McLaughlin, that we would return to base, refuel, and return to Kham Duc. General McLaughlin denied my request and ordered me to "remain in the holding pattern over Kham Duc even if you have to bail out." We were holding in a thunderstorm at 28,000 feet. Shortly thereafter, we were called down; I found a hole in the clouds and navigated around the mountainous terrain and found Kham Duc and Bookie 771 who was on a down wind to the Kham Duc runway.

I was instructed to coordinate the landing of Bookie 771, so that I could provide maximum air cover. As Bookie 771 made his steep approach, I split my flight into two elements. Two of the F-4s with 12 cans of napalm delivered their ordnance on the outside of the airfield. I led the other two F-4s with 12 canisters of CBU's over the camp and inside the runway. Bookie 771 landed in between us and picked up the survivors and departed.

My flight of four was now on emergency fuel and departed for Chu Lai, a Marine airstrip 62 nautical miles away. I radioed ahead—"emergency fuel"—since my fuel gauge was reading 1,600 pounds, not much for an F-4. Even at that, I had the most fuel among the four fighters. As I turned final at Chu Lai, the tower ordered me to go around, fully expecting [me] to bail out because of no fuel. However, my aircraft continued to keep running

even with the fuel gauge reading zero. I managed to land beside several fire trucks that were on the runway en route to my No. 3 man who was not able to get his landing gear down and had belied in his F-4. It was sitting in the sand beside the runway.

The next morning, General Westmoreland came to Cam Ranh Bay and personally pinned the Distinguished Flying Cross on me and Air Medals on the remaining Hammer 94 crew.

I could provide more detail, but the point is that our flight truly allowed Bookie 771 to have significant fire support during his heroic landing to pick up the three survivors. It was an awesome sight to see the downed C-130s, A-1E, O-2, and helicopters. Also, the NVA were trying to cross the fence line to get to the Kham Duc airfield. My flight stopped that whole NVA assault process.

Lt. Gen. Richard A. Burpee,  
USAF (Ret.)  
Oklahoma City

#### Correction

On p. 42 of "The Ground Warriors of Airpower," in the September issue, the M-4 carbine, or light rifle, was misidentified as a machine gun.

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## Fogleman's Farewell

*With the cryptic statement that he may have been "out of step with the times and some of the thinking of the establishment," Gen. Ronald R. Fogleman on July 28, 1997, cut short by more than a year his tour as Air Force Chief of Staff and retired from active duty. It was a move unprecedented in the Air Force's 50-year history.*

*Fogleman had several reasons for his action. The most important of these, however, stemmed from the disagreement between himself and top defense officials on what punitive action, if any, should be taken as a result of the June 25, 1996, bombing of the Khobar Towers housing complex in Saudi Arabia. In that attack, 19 USAF airmen were killed and hundreds were wounded.*

*Fogleman for months had emphatically argued against blaming the wing commander, Brig. Gen. Terryl J. Schwalier, for the disaster. The Chief told the Senate Armed Services Committee that it would be wrong to punish officers when, "despite their absolute best efforts, [troops] are targeted by somebody in an act of war and somebody is killed." This kind of ex post facto sharpshooting, he added, would have a "chilling effect" on commanders. However, Fogleman's conclusion clashed with that of Secretary of Defense William S. Cohen, who, Fogleman knew, was preparing to take action against Schwalier. On July 31, three days after Fogleman's action, Cohen went ahead and stripped Schwalier of a previously approved promotion to major general, ending his career.*

*For years, Fogleman declined any public comment on his action beyond a brief written statement. (He finally discussed it in an interview with Aerospace Power Journal, published in the spring 2001 issue.) Though Fogleman's message to the troops was dated July 30, it was actually released on July 28.*

July 30, 1997

**A**s my tenure as your Chief of Staff ends, I want to tell you what an honor and a privilege it has been to represent everyone in the United States Air Force.

The timing of my announcement was driven by the desire to defuse the perceived confrontation between myself and the Secretary of Defense over his impending decision on the Khobar Towers terrorist attack. The decision to retire was made after considerable deliberation over the past several weeks.

On one level, I've always said that my serving as the Chief of Staff was a "tour" not a "sentence" and that I would leave when I made all the contributions that I could. After I accepted this position in 1994, I met with other senior leaders of the Air Force to discuss our goals for my tenure. We wanted to take care of the troops and their families, to stabilize the force, to set a course for modernization, and to develop a new strategic vision. During some difficult and challenging times, we have

### "Message to the Force"

Gen. Ronald R. Fogleman  
Chief of Staff of the  
United States Air Force  
Department of the Air Force  
Washington, D.C.  
July 28, 1997

worked hard to accomplish that and more. Certainly there is more to be done, but the framework of the plan and the leadership [are] in place to move forward with the support and efforts of the magnificent men and women of our Air Force.

On another level, military service is the only life I have ever known. My stock in trade after 34 years of service is my military judgment and advice. After serving as Chief of Staff for almost three years, my values and sense of loyalty to our soldiers, sailors, marines, and especially our airmen led me to the conclusion that I may be out of step with the times and some of the thinking of the establishment.

This puts me in an awkward position. If I were to continue to serve as Chief of Staff of the Air Force and speak out, I could be seen as a divisive force and not a team player. I do not want the Air Force to suffer for my judgment and convictions. In my view, this would happen if I continue as your Chief. For these reasons I have decided to retire and devote more time to personal interests and my family, ... but the Air Force will always be in my thoughts.

[My wife] and I have met a lot of wonderful American servicemen and -women—active duty, Guard, Reserve, civilians, and family members—and they will continue to be a part of our lives. We have been proud to represent the men and women of the United States Air Force around the globe and to serve in the finest Air Force in the world. God bless and keep you all as you continue to serve this great nation. ■

By John T. Correll, Contributing Editor

## Concessions Won't Work

"Over the years, these extremists have used a litany of excuses for violence: Israeli presence on the West Bank or the US military presence in Saudi Arabia or the defeat of the Taliban or the crusades of a thousand years ago. In fact, we're not facing a set of grievances that can be soothed and addressed. We're facing a radical ideology with unalterable objectives: to enslave whole nations and intimidate the world. No act of ours invited the rage of the killers, and no concession, bribe, or act of appeasement would change or limit their plans for murder."—**President Bush, speech to National Endowment for Democracy, Oct. 6.**

## The Problem Is Airpower

"America's fondness for airpower puts our ground forces at a disadvantage."—**Headline on article by retired Army Maj. Gen. Robert H. Scales in The American Legion Magazine, October 2005.**

## International Industrial Base OK

"Our job is to get the best for the warfighter. Innovation is not always bounded by borders. We want the best capability at the most cost-effective price and from the best suppliers we can find."—**Kenneth J. Krieg, undersecretary of defense for acquisition, technology, and logistics, defending Pentagon's increasing reliance on foreign contractors, International Herald Tribune, Sept. 23.**

## US Industrial Base Not Seen

"Rumsfeld hasn't met with any senior executives from the defense industry during his tenure as Defense Secretary. The heads of some of the biggest military contractors have never talked to him. ... Rumsfeld thinks the sector is populated by plutocrats rather than patriots, people who don't care about the nation's real defense needs. Obviously, this view is more easily sustained when you never deal with any of them."—**Loren B. Thompson, Lexington Institute, Sept. 23.**

## Gimme 20

"I love the image of me doing push-ups."—**Lucie Wood Saunders, 77, of Upper Nyack, N.Y., who received a**

**Marine Corps recruiting mail out promising to push her "physical and mental limits beyond anything" she has known, Boston Globe, Sept. 24.**

## Keep the ICBMs

"The strategic forces that deterred Soviet aggression and kept the limited conflicts of the Cold War from escalating to global annihilation continue to play a critical role in deterring aggression and dissuading near-peer competitors. We do not believe our ICBM fleet should be a strong candidate for paring back."—**Bi-partisan Senate ICBM Coalition, letter to Defense Secretary Donald H. Rumsfeld, Sept. 21.**

## A Flaw in the Evidence

"I have evidence that there are plans to invade Venezuela. Nobody can deny it, because it, Plan Balboa, exists."—**Venezuelan President Hugo Chavez, accusing US of plans to invade his country. Although Plan Balboa did exist, it was a wargame involving a "Venezuela-like" country and was organized by Spain's armed forces, not by the United States, Miami Herald, Oct. 2.**

## Leaving Rhein-Main

"It feels like a funeral [but] we're here to celebrate rather than be real sad about it."—**Retired Air Force Col. Gail Halvorsen, 85, the Berlin Airlift "Candy Bomber," in Frankfurt for ceremonies at which US returned Rhein-Main Air Base to Germany, Stars and Stripes, Oct. 11.**

## A Matter of Will

"This is a battle of wills, and they're out to break the will of the Iraqi people and the wills of the coalition publics. They're not succeeding in Iraq. They can only beat us if we lose our will."—**US Army Gen. George W. Casey Jr., commander of the Multinational Force in Iraq, The Hill, Oct. 4.**

## Quagmire

"The odds are not great of our prevailing there. Since the end of World War II, the only major foreign power that succeeded in putting down an insurgency was the British putting down the Malay insurgency, but the British stayed 15 years. So you can

say for historical reasons, the odds are not great of our prevailing there, it's a quagmire, and it could go wrong."—**Former President Clinton, Ladies Home Journal, November.**

## Where the Quagmire Is

"On the subject of Iraq, it's Washington that looks more like a quagmire. That was true in Vietnam, too. By the mid-1970s, America was winning in Vietnam, but support in Washington and the country had plummeted. Now we're winning in Iraq and beginning to lose at home."—**Fred Barnes, The Weekly Standard, Oct. 17.**

## The Annals of Airmanship

"We, of course, hadn't planned to probe NATO defenses, but they turned out to be good for nothing. The much-praised German pilots were on duty there, drinking beer or doing I don't know what, but when they were scrambled, the plane had already hit the ground."—**Russian Air Force Chief Vladimir Mikhailov on slow NATO response to Russian Su-27 that violated Lithuanian airspace and crashed there, Associated Press/Moscow Times, Sept. 27.**

## McCain on Torture

"Many of my comrades were subjected to very cruel, very inhumane, and degrading treatment, a few of them even unto death. But every one of us—every single one of us—knew and took great strength from the belief that we were different from our enemies."—**Sen. John McCain (R-Ariz.), who was tortured as a POW in the Vietnam War, Los Angeles Times, Oct. 6.**

## Sea Hawk

"It doesn't bother me to spray paint 'US Navy' down the side of a Global Hawk."—**Gen. T. Michael Moseley, Air Force Chief of Staff, on willingness to share operation of USAF systems with other services, Defense Daily, Oct. 12.**

## Domestic Mission

"Our fellow citizens are right to expect our military will act during a disaster."—**Marine Corps Gen. Peter Pace, Chairman of the Joint Chiefs of Staff, Parade magazine, Oct. 2.**

# Washington Watch

By John A. Tirpak, Executive Editor

## Jointness to the Next Level; Programs in Danger; The Buzz About Domestic Military Missions ....

### The Mark of Moseley

The new Air Force Chief of Staff, Gen. T. Michael Moseley, wants to make "interdependency" of the armed services the central theme of his tenure.

Moseley, speaking in October at the American Enterprise Institute in Washington, D.C., said the Air Force and its sister branches have long since figured out how to deconflict their operations. The new challenge, he said, is achieving complete integration of service efforts.

"We've truly evolved beyond just staying out of each other's way," Moseley asserted, noting that the military branches showed they could do that in the Gulf War in 1991. Now, the trick will be for the services to eliminate "redundancies" among themselves and accept being dependent on each other for certain missions.

Moseley said he's perfectly happy to share missions—and even individual aircraft—with the other services, provided the mission is accomplished more efficiently and effectively.

He wouldn't mind if a Global Hawk reconnaissance UAS has "Air Force" painted on one side and "Navy" on the other. He also said he is not opposed to partnering with the Army on a new small cargo aircraft to support special operations forces far afield.

"It doesn't bother me at all," said the Chief.

Moseley went on to say that "it makes perfect sense" to build more of these interdependencies with the land, sea, and special operations force components. Said Moseley, "We have lots and lots of data to show this is the right way to do it."

Achieving interdependency "really matters to me," Moseley insisted. One reason, it seems, is that the Air Force and all of the services are in for a long, grueling war with terrorists.

The Air Force is more combat experienced than it has been at any time since World War II, Moseley asserted, noting that Air Force people have continuously been at war since Operation Desert Shield began in August 1990. He sees no letup in the future.

"It is my sense we will be in a Global War on Terrorism for our lifetime," he added, although he said the conflict will probably "ebb and flow" in the years to come. As it does, the constellation of partners and coalition allies with which the Air Force works will shift, he said.

Moseley also said that today's Air Force members are accustomed to both the expeditionary mind-set and to doing jobs not traditionally performed by the service.

He noted that fully 80 percent of those now on active duty joined the service after the end of the Cold War. The Air Force has been an expeditionary outfit for the entire careers of these airmen. Moreover, Moseley noted, 40 percent of active USAF troops have joined up since the Sept. 11, 2001, attacks. That means that enlistees today "know exactly what they're getting into," said Moseley, and they aren't surprised to find themselves driving Army trucks or guarding an Army base.

"This is what we do," he said.

### Some Other Moseley Marks

During his appearance at the American Enterprise Institute, Moseley laid down several other important markers.



Moseley (r) thinks the war will last "for our lifetime."

Moseley wants to reshape the intelligence career field within the service. He also warned that he is inclined to terminate programs whose costs won't stop climbing.

Intelligence is an "incredible" force multiplier, Moseley said, and he plans to enlarge and reinvigorate the Air Force's personnel structure in this field.

"I believe we do not have enough intel players," Moseley said, adding that he wants to increase the force among both the active and reserve components and civilians. He's also concerned that the Air Force's intel specialists may not have "the right skill sets" for prosecuting the Global War on Terrorism, and he's set up a panel to scrutinize the training and specialization of the intelligence cadre in the coming months.

The Chief of Staff said he is down on acquisition programs whose costs continue to rise "exponentially" with no end in sight, and he's willing to cancel programs if they can't be brought under control financially.

While Moseley didn't name any programs in particular, he acknowledged that some space programs fit the bill. If a program shows no sign that its cost can be managed, his impulse will be to "kill it," he said.

### Domestic Roles for Troops?

Various "lessons learned" reviews now under way in the wake of Hurricanes Katrina and Rita are pointing to a bigger military role in responding to natural disasters, not only in terms of direct operations but in planning.

However, there seems to be some differences of opinion within the military services over the role federal forces should play in disaster response without being summoned by local authorities.

President Bush started the buzz about an expanded domestic role for the military in September, when he lauded the military response to Hurricane Katrina.

In his Sept. 15 address to the nation from hurricane-stricken New Orleans, Bush said, "A challenge on this scale requires greater federal authority and a broader role for the armed forces."

Then, in October, Bush suggested the military might take a leading role in responding to a flu pandemic. The military,

he said, with its ability to “plan and move” might be the best solution to effecting quarantines.

“That’s why I put it on the table. I think it’s an important debate for Congress to have,” Bush said. Congress should examine whether to “vest the capacity of the President to move beyond” existing laws requiring local authorities to request federal military assistance before active duty forces can enter a disaster zone, he added.

The existing law, known as “posse comitatus” (Latin for “power of the country”), prohibits the use of federal troops for law enforcement unless the President invokes the Insurrection Act, which allows the use of federal troops to restore order should local authorities be completely incapacitated.

The Administration was criticized for not moving faster to rush to the aid of New Orleans. The city was quickly set upon by looters in the aftermath of Hurricane Katrina. Bush has countered that federal forces were not requested by the Louisiana government.

However, the Defense Department apparently is not considering asking for a change in posse comitatus. Rep. Ike Skelton (D-Mo.) issued a statement in October that he had met with Defense Secretary Donald H. Rumsfeld and had been assured that DOD seeks no change in the law. As part of its ongoing Quadrennial Defense Review, the Pentagon is considering the right mix of active duty and reserve forces that would be appropriate for disaster response.



USAF photo by SMSgt. Elaine Mayo

**SMSgt. Omar Rivera heads for the Katrina zone.**

be the Guard and Reserve, McHale added. Guard units, for example, are “forward deployed” to the states in question and are better suited, through their local knowledge, to be the military “first responders.” The Guard took the lead in dealing with Hurricanes Katrina and Rita and did a great job, McHale said. The operation was the opposite of the response to Hurricane Andrew in 1992, when it was the active component that took the lead, he noted. The response to Katrina was much faster and comprehensive than was the case for Andrew, he asserted.

McHale emphasized that active forces should only take the lead in responding to a disaster when the event is truly “catastrophic,” i.e., of a scale that occurs only “once or twice in a generation.” Katrina, he argued, was “a pretty rare event.” The Guard and Reserve will be better able to take the lead in handling the 50 or so storms or other natural calamities that typically take place in a year, he said, with the active forces taking a supporting role.



AP photo by Paul Sancya

**The Michigan Guard rolls to the Gulf Coast.**

However, he acknowledged that “the roles, missions, and authorities of DOD in responding to catastrophic events need to be examined.”

Sen. Carl Levin (Mich.), ranking Democrat on the Senate Armed Services Committee, told reporters in Washington on Oct. 5 that he sympathizes with the military about the specter of having to cope with yet another new duty.

Levin said, “I haven’t heard directly from the people at the Pentagon, but I can imagine how they feel. They feel that the number of missions they have already is more than enough to keep them busy, and I think that’s true.”

### **The Levin Report**

The ongoing cost of fighting the war in Iraq, coupled with unexpected large cash outlays for disaster relief and

AP photo by Susan Walsh



**President Bush, on board, caught a glimpse of Rita’s destruction.**

That mix would probably favor the reserve components, according to Paul McHale, assistant secretary of defense for homeland defense.

In a meeting with defense reporters in October, McHale reported that US Northern Command is examining whether it needs to overhaul its disaster response plans.

There is a classified plan in place that calls for a military response to “multiple, near-simultaneous terrorist attacks involving weapons of mass destruction within the United States,” McHale said.

He said that Adm. Timothy J. Keating, head of NORTHCOM, “is looking at an ability to build upon that immediate response capability in order to have a greater number of general utility forces available and trained to respond” to catastrophic events like Katrina, McHale said.

According to the *New York Times*, Keating has drafted a plan that would establish a quick-response active duty force trained and ready to assist the reserve components in disaster response but in a supporting role. The force would comprise specialists in logistics, communications, medicine, and infantry operations. It would not trip posse comitatus because the organization would be subordinate to Guard units. However, the *Times* report said the plan had not been briefed to Rumsfeld as of Oct. 11.

The lead military agency for disaster intervention should

reconstruction, mean major Air Force aircraft programs could be trimmed or postponed, but probably not canceled, according to Levin.

Levin, speaking with reporters in Washington in October, said "there's going to be some real pressure" on the F/A-22 Raptor and F-35 Joint Strike Fighter projects "and on a lot of other programs" due to budgets being tighter even than they were expected to be last year.

However, Levin said, he doesn't anticipate either the F/A-22 or the F-35 being canceled.

Of the F/A-22, he said, "It's hard to see that one being reduced any more. If anything, the Air Force pressure is to increase back to the number they were hoping for and planning on." The Air Force has a stated requirement for 381 F/A-22s, but could have afforded about 270 under budget plans prior to Fiscal 2005. Last December, senior defense leaders slashed the program to 179 airplanes.

However, Levin said the F-35, still in development, could be "reduced or delayed, which it already has been." The program underwent a year's slip and a significant cost increase last year.

AP photo by Dennis Cook



Levin sees "real pressure" on fighters.

Levin added that the F-35 might be "delayed further, perhaps to pay for the F/A-22."

Another key Air Force requirement, a replacement for the KC-135 tankers, might also be postponed, Levin said.

"It may be that we can get along without [new] tankers for a longer period," Levin said. He noted that the Air Force's tanker alternatives study was still under way and would "determine the condition of the existing tankers" as well as "whether or not, in fact, we need to move the tanker as quickly as was asked for."

Asked what might be the long-term effects on the armed forces due to the ongoing war in Iraq, Levin said the military has been "overstretched, and particularly when it comes to the National Guard and Reserve forces, I think there's a significant morale issue among the families, the members themselves, and their employers."

### The Cluster Bomb Trap

The Pentagon is confronting a serious problem that threatens to undermine the US in its air battles: what to do about cluster bombs. So said the Defense Science Board in September.

In a report on munitions system reliability, a DSB task force said the Pentagon isn't taking seriously enough the issue of cluster, or area, munitions, particularly those that don't explode and create what are essentially minefields. These



USAF photo by TSgt. Ben Bloker

Will there be more than 179 of these?

minefields mean ghastly problems for local populations after the fighting is over and also hinder US ground force movements if they must enter the area.

The DSB panel, chaired by retired Air Force Maj. Gen. Kenneth R. Israel, charged the Defense Department with a "lack of focus" on the problem and found "no comprehensive approach" to either assessing the reliability of munitions or figuring out what to do with the large stockpile on hand.

It would cost billions to upgrade the sizable inventory of cluster munitions such that unexploded ordnance could be found or remotely detonated later; at the same time, it would cost just as many billions to try to locate and clear such virtual minefields after a conflict.

The intense emphasis on limiting collateral damage and civilian casualties in recent wars makes the issue one of paramount importance, the DSB said.

Future problems could be mitigated if new delivery systems were fitted with highly precise seekers, such as the Air Force's Wind-Corrected Munitions Dispenser, the task force found. Accuracy would limit the number of weapons needed and confine the danger area from unexploded ordnance, or UXO.

However, the DSB panel found that "funding for munitions research and development is chronically inadequate," and the existing data available on the accuracy and reliability of munitions is "inconsistent, largely anecdotal, and often from questionable sources." There is "no comprehensive approach" at DOD for addressing the issue, the task force said.

The panel recommended an expansion of munitions testing in realistic environments and the development of tools to share such data among the services. It also suggested creating a "munitions expenditure database"—a catalog of where bombs of all types have been dropped—to aid in later UXO disarming operations.

The panel suggested greater investment in new technologies, such as "ultrareliable fuze development," and that DOD should have new systems in place by 2008. It wants more joint weapon programs in order to achieve "critical mass" in funding of new technologies. Such technologies would include radio frequency "identification tags" that would help post-conflict cleanup crews to find and identify UXO.

A new family of more precise, reliable area munitions should be created, the panel recommended. Furthermore, the Pentagon should coordinate with industry to establish just how much business in the field there will be, so as not to keep an unhealthy and inefficient number of companies vying for the work. ■

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By Breanne Wagner, Associate Editor

## F/A-22 Wraps Up Deployment

The 1st Fighter Wing at Langley AFB, Va., sent some of its new F/A-22 Raptors to Hill AFB, Utah, on Oct. 15, marking the first deployment of the fighters. The new stealth fighters wrapped up their action and returned on Oct. 28.

The move was designed to gauge the F/A-22's readiness to be declared operational in December.

A group of 167 airmen deployed from Langley to Hill for a two-week training period. The trip was intended to give the troops the chance to practice wartime capabilities in "a foreign environment," the Air Force said.

During the deployment, the F/A-22s released inert Joint Direct Attack Munitions in simulated air strikes.

It also marked the first time since the 1970s that the 1st Fighter Wing from Langley performed an air-to-ground mission.

## NRO and USAF, Together Again

The director of the National Reconnaissance Office is again in the chain of command of the Secretary of the Air Force, the Pentagon announced Oct. 3.

Donald M. Kerr, the NRO chief, was named to a new, additional post of assistant to the Secretary of the Air Force for intelligence space technology, effective Oct. 3.

Until recently, the NRO job was part of the portfolio of the undersecretary of the Air Force. However, it was peeled away in recent months in a shakeup of national intelligence functions. (See



A replica World War II Japanese Zero fighter zooms past clouds of smoke and a pyrotechnic explosion at Edwards AFB, Calif., during the base open house Oct. 22. The airplane was part of a re-enactment of the Dec. 7, 1941, attack on Pearl Harbor.

"Washington Watch: NRO Job Taken From Air Force," October, p. 16.)

The new post will allow Kerr to "support the Secretary of the Air Force in carrying out his [Defense Department] executive agent for space responsibilities," Defense Secretary Donald H. Rumsfeld said in announcing the new job.

The Air Force undersecretary, Ronald M. Sega, is DOD executive agent for space but did not get the NRO job when he was sworn in.

The NRO director post had been within the Air Force's chain of command for 44 years. The breakup was intended to let the USAF undersecretary and the NRO director each devote full attention to their respective organizations.

## Now, Predator Four-Ships

The first four-ship sortie of Predator MQ-1 drones was flown on Sept. 14 at Creech AFB, Nev. Using the newest upgrade, known as the Multiaircraft Control, or MAC, system, Predator pilots flew two-ship sorties Sept. 12 and 13 and progressed to four-ship sorties on Sept. 14 and 15.

The MQ-1 Predator is a medium-altitude, long-endurance remotely piloted aircraft that can carry Hellfire missiles. The MAC system was tested to see if it could enable a single pilot to simultaneously control four aircraft. It successfully allowed one pilot to engage a target while controlling three other Predators flying nearby.

"While one pilot controls all four Predators, sensor operators assigned to each Predator are able to collect data using the sensor ball," said Lt. Col.

## Northrop Grumman Gets \$2.5 Billion Missile Defense Deal

Northrop Grumman was awarded a Missile Defense Agency contract worth up to \$2.5 billion as the prime contractor for the Joint National Integration Center, the Pentagon announced Sept. 20.

The contract calls for modeling and simulation work supporting the Ballistic Missile Defense System.

A two-year base contract is slated to start in February 2006 at a minimum value of \$30 million and a maximum of \$500 million. If all three one-year options and five one-year award terms are picked up, the potential 10-year contract could be worth \$2.5 billion, according to the Pentagon.

Work on the contract will be done at Schriever AFB, Colo. The work is to be completed in late January 2008.



Steven Tanner, commander of Det. 4, 53rd Test and Evaluation Group.

Operational testing missions were expected to be flown using the MAC system at Eglin AFB, Fla., and Nellis AFB, Nev. They were to conclude in November.

### Airmen Get Army Commendations

Five members of Air Force Reserve Command's 908th Airlift Wing, Maxwell AFB, Ala., have been tapped to receive Army Commendation Medals for their contribution to Army operations in Iraq. Plans called for award of the medals in December.

The honored airmen were MSgt. George Campbell, MSgt. Vera Berry, TSgt. Steven Smith, TSgt. Cynthia Blais, and SSgt. John Traum, all of whom had served as vehicle operators in Iraq.

The Reservists in early 2004 volunteered to help their Army colleagues supply Army and Marine forces in Iraq. USAF put together a 250-man company that went through Army training before deploying.

The Reservists dealt with roadside and homemade bombs in Iraq. Moreover, the base where they were stationed took 390 rounds of mortar fire during their year-long deployment.

When they weren't dodging mortar fire, the airmen drove five-ton trucks and carried out administrative jobs in Balad.

### Nightingale Calls It a Day

The last active duty Air Force C-9 Nightingale—tail no. 876—officially retired on Sept. 20 when it flew from



*Air Force Research Laboratory has developed the first man-portable, nonlethal laser weapon. Above, Capt. Drew Goettler, Kirtland AFB, N.M., demonstrates the Personnel Halting and Stimulation Response (PHASR) system. It is designed for troop and perimeter defense and crowd control.*

Ramstein AB, Germany, to Andrews AFB, Md., where it will remain as part of the base air museum.

The C-9 medical evacuation aircraft was tapped for retirement because of its short range and use of engines that no longer meet noise restrictions at some airports.

This last Nightingale entered service in 1971 and had seen duty both as an aeromedical evacuation aircraft and as the aircraft of the supreme allied commander of NATO.

This type of aircraft was the only

USAF system specifically designed to move patients. The mission has been taken over by other mobility aircraft.

### USAF Gets Female Commandant

Col. Susan Y. Desjardins was selected on Oct. 7 to be commandant of the cadets at US Air Force Academy and commander of the 34th Training Wing. She is the first woman to hold the job, for which she would be promoted to brigadier general.

The new commandant will oversee the training of 4,000 cadets and will direct a staff of 930.

Desjardins graduated from the academy in 1980, having been in the first class to include women. She will supervise cadet training in the wake of various controversies at the school.

Desjardins is a pilot with more than 3,600 hours flying transport and aerial refueling aircraft. She previously commanded the 437th Airlift Wing at Charleston AFB, S.C.

She was one of 156 women who entered the academy in 1976. Ninety-six graduated in the Class of 1980.

### C-17 Drops Booster

An Air Force C-17 on Sept. 29 successfully deployed a dummy rocket.

The test of the joint USAF-Defense Advanced Research Projects Agency "QuickReach" booster takes the program a step closer to its goal of fielding a low-cost, rapid-reaction small satellite launcher.

The booster was built by AirLaunch and is being pursued under the USAF-DARPA Falcon program. The goal is to be able to launch a fresh satellite within 24 hours and for less than \$5 million.

## Air Force Rushes Relief to Pakistan

The Air Force moved quickly to deploy rescue personnel, equipment, and relief supplies to Pakistan after that country was struck by a devastating magnitude 7.6 earthquake Oct. 8.

Air Mobility Command on Oct. 10 deployed the 621st Contingency Response Wing from McGuire AFB, N.J., to Pakistan.

The Air Force sent C-17 and C-130 aircraft into the devastated area carrying clothes, sleeping bags, cots, tents, food, vehicles, cargo loading and maintenance equipment, generators, and temporary housing materials.

More aid was soon on its way from Travis AFB, Calif.; Dover AFB, Del.; Westover ARB, Mass.; Kelly Field Annex and Lackland AFB, Tex.; Memphis Arpt., Tenn.; Stewart ANGB, NY.; McChord AFB, Wash.; and Charleston AFB, S.C.

Army CH-47 Chinook helicopters were delivered to Pakistan aboard Air Force C-5 Galaxy transport aircraft.

Combined Joint Task Force-76 from Bagram AB, Afghanistan, conducted airdrop missions beginning on Oct. 14 to deliver relief aid to remote areas of Pakistan.

The Total Force effort became an international mission as airmen helped unload a field hospital delivered via an Iranian Il-76 cargo aircraft. A USAF C-17 also transported the first Qatari mobile hospital to Pakistan on Oct. 15. Loaded with seven Qatari Army soldiers and 90,000 pounds of cargo, the C-17 airlifted the men and supplies to the operations hub at Islamabad Arpt., Pakistan.

US airmen also worked closely with German, Japanese, Swiss, and Afghan forces, as well as representatives from other nations, the Air Force said.

As of Oct. 21, the US military had transported more than 1,200 tons of relief supplies, according to Navy Rear Adm. Michael A. LeFever, who coordinated the military response. A total of 17 helicopters had been provided and an additional 20 were en route. By Nov. 9, 10,217 locals had been evacuated.

Photos by C. Peter Greengrass



The left photo shows (l-r) an F-15E Strike Eagle of the 391st FS, Mountain Home AFB, Idaho, and an F-16 of the 79th FS, Shaw AFB, S.C., wearing stripes. In the right photo is a big cat Eagle on the ramp. The inset is a special wheel inlay.

## Colorado ANG Best at 2005 Tiger Meet of the Americas

The Colorado Air National Guard was the overall winner of the 2005 Tiger Meet of the Americas, hosted in October by Mountain Home AFB, Idaho.

The friendly international competition and exercise, held every other year, is open to units that have a "big cat" as their mascot or theme. The TMOTA is modeled after the NATO Tiger Meets that have been held since 1961.

The competition revolves chiefly around maintenance to support a flying program involving tactics and weapons delivery, but also includes an artistic contest for colorful "tiger" markings applied to participating aircraft and other, nonmilitary pursuits. The exercises are meant to build military-to-military relationships with other regional air forces.

The 391st Fighter Squadron, of host Mountain Home, won the maintenance trophy. The Colorado ANG won for best-painted aircraft, and the ANG's 140th Wing/120th FS

out of Buckley ANGB, Colo., won for best overall team. The 79th FS, from Shaw AFB, S.C., was runner-up and will host the 2007 TMOTA.

Seven units, with 25 aircraft and 321 personnel, participated. Aircraft types included CF-18s from Cold Lake, Canada; F-16s from Shaw and Buckley; a C-21 from Buckley; a NATO E-3 AWACS aircraft; KC-135s from Seymour Johnson AFB, N.C.; a B-1 from Ellsworth AFB, S.D.; and T-38s from White-man AFB, Mo. German Tornado fighters also flew during the week-long games.

The TMOTA brings squadrons together for a rare chance to showcase differing fighter tactics through wargames as well as to promote teamwork and cooperation to prepare for overseas deployment.

The flying component involved air-to-air missions, refueling, low-level navigation tactics, and dissimilar aircraft training.

The C-17 flew to 6,100 feet with the dummy booster inside the cargo bay. At the designated time, the crew released it, and it was pulled from the bay by gravity alone. The test demonstrated that the booster would not hit the C-17's cargo bay ceiling on its way out. The aircraft was flying at 167 mph when the booster was deployed.

If DARPA and the Air Force decide to pursue the project, they would attempt a test launch of a 1,000-pound satellite in 2008. That launch would come at an altitude of 33,000 feet.

### U-2 Accident Report Released

A catastrophic sequence of events that caused loss of electrical and hydraulic power led to a fatal U-2 crash in June, the Air Force announced. (See "Aerospace World: Airman Dies in U-2 Crash," August, p. 14.)

Air Force investigators said the air-

craft was in a critical phase of flight, making a descending turn below 3,500 feet in preparation for landing at night,

when the power takeoff shaft, an element of the airframe-mounted accessory drive, failed.

## Boeing and Lockheed Team Up for SDB II Competition

Boeing and Lockheed Martin want to team up to jointly compete for the Small Diameter Bomb (SDB) Increment II program, the companies announced in October.

Under the teaming arrangement, Boeing would be the leader and Lockheed Martin the principal supplier. Boeing would be responsible for the overall weapon system, supplying the air vehicle and data link, while Lockheed Martin would have total subsystem responsibility for the seeker system.

"We will enhance the capability of Boeing's proven SDB I system with addition of our advanced multimode seeker," said a Lockheed spokesman.

Boeing began production on the first phase of the SDB this year. The new seeker, designed to find moving targets, also is expected to allow attacks on more targets with fewer sorties.

Boeing was expected to have the \$2.7 billion SDB program to itself until the Government Accountability Office determined that former Air Force procurement official Darleen A. Druyun may have unfairly favored Boeing in awarding the contract. (See "Druyun Released From Prison," p. 22.) In response, the Air Force decided to open the second phase of the project to competition. Plans called for USAF to release its request for proposals on SDB II in late October.

As a result, hydraulic power and the AC and DC generators went out. Vibration, loss of electrical power, and loss of cockpit lighting and displays convinced the pilot, Maj. Duane W. Dively, that the engine had experienced a severe malfunction, even though it actually was operating, investigators reported.

The accident investigation board concluded that Dively was spatially disoriented and lost situational awareness in the 63 seconds from the time the shaft failed until the aircraft hit the ground.

The U-2 was assigned to the 9th Reconnaissance Wing, Beale AFB, Calif. It was returning to the United Arab Emirates after a 17-hour high-altitude night mission over Afghanistan. Dively was regarded as one of the service's most experienced U-2 pilots.

### Reserve Wing Gains C-5As

The 445th Airlift Wing in October received the first two of a planned fleet of 11 giant C-5A airlifters.

The wing, an Air Force Reserve Command outfit based at Wright-Patterson AFB, Ohio, took possession of the first Galaxy on Oct. 3 and the second on Oct. 5.

The unit had been flying C-141s ever since its activation in 1994. Plans now call for the last Starlifter to retire in 2006.

The C-5s, with an average age of 35, are only five years younger than the C-141s that they replace. However,

*Continued on p. 21*

## Rivet Joint: 15 Years in the Sand Box

In August, the Air Force's small RC-135 Rivet Joint community marked 15 years of continuous operations supporting Defense Department missions in Southwest Asia.

The anniversary recognizes that Rivet Joints—RJs for short—have kept watch over the Middle East since Saddam Hussein invaded Kuwait in August 1990. The operations exceeded in length even those of E-3 AWACS units, which ended their continuous SWA mission in 2003. Offutt AFB, Neb., is home base to the RJs.

The RC-135s have supported each Middle East deployment of Air and Space Expeditionary Forces, all the while remaining in low-density, high-demand status, according to Maj. Gen. John C. Koziol, then commander of Offutt's 55th Wing. The aircraft's ability to provide "direct tactical support to the warfighter" has made it indispensable to unified commanders, Koziol said. The RC-135 collects signals intelligence and performs other, undisclosed missions as well.

Because their missions are considered highly sensitive, RC-135 crews are permitted to say little about what they do, or how. Air Force officials, however, have noted that the mission has evolved from "intelligence preparation of the battlefield" to "live" support of forces on the ground.

"I don't believe in 'near-real time,'" Koziol added.

The RJ crews often see the results of their intelligence-gathering almost immediately.

"We hear it," said Lt. Col. Ron Machoian, commander of Offutt's 38th Reconnaissance Squadron. "I can listen to us informing an engagement on the ground, while I'm airborne."

As RJs gather information about an imminent ambush, the intel can be passed to air liaison officers to "call in A-10s or a B-1. They strike the location, ... and our ground forces wind up maneuvering to engage and check out those locations," he explained.

The friendly ground forces "wind up finding a devastated enemy location with caches of weapons. ... You get feedback on that in near-real time, as well."

Such an operation may occur four to six times per deployment.

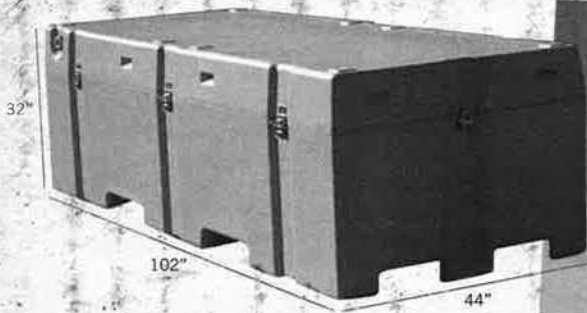
"I got an e-mail on at least two different occasions where somebody offered to buy us kegs of beer" because of the difference the RJ crew made for the troops on the ground, noted Lt. Col. John Rauch, commander of the 338th Combat Training Squadron.

"There is no doubt that we are saving American lives" with the information that is flowing to troops in contact with the enemy, Machoian said.

The shift from intelligence prep to dynamic support makes today's RJ mission "fundamentally different," said Col. Don Kelly, deputy commander of the 55th Operations Group. Information is no longer gathered and processed on the ground, as it was during the Cold War. RJ crews are "using it the minute we find it," he said.

The mission has evolved even over the past few years. Early in Operations Enduring and Iraqi Freedom, it was the air packages that needed the most support. Today, said 55th Operations Group Commander Col. Dennis R. Wier, RJ information "is key to how soldiers and marines do their jobs."

—Adam J. Hebert

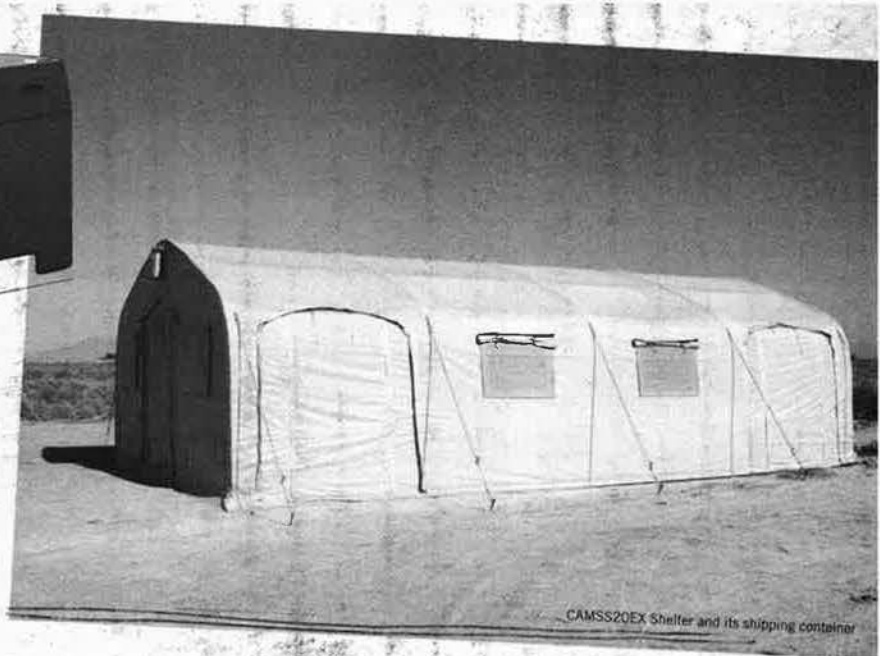


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Postal Service Unveils New Aviation Stamps



The US Postal Service recently issued a set of postage stamps commemorating American aviation innovations from the 1930s, 1940s, and 1950s. Each sheet of 20 First Class stamps features 10 de-

signs, including the P-80 Shooting Star, B-29 Superfortress, F-6F Hellcat, P-47 Thunderbolt, B-24 Liberator, and YB-49 Flying Wing.

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My name is Ira Abbott. I am Director of Business Development for EADS North America Defense Security and Systems Solutions in San Antonio, Texas. My job is to deliver security solutions and services that protect the U.S. Department of Defense information networks. I am a retired U.S. Air Force officer and a specialist in cybersecurity. I eliminate threats to our national security. I am EADS North America.

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## News Notes

■ The Pentagon thinks a high-powered microwave device can be made to neutralize some deadly roadside bombs, or IEDs (improvised explosive devices). IEDs have posed the most dangerous threat to coalition troops in Iraq. The microwave devices, being developed by Alliant Techsystems, will jam signals sent by terrorists to detonate the bombs. They have been tested in the United States.

■ Under a new Pentagon directive, service members can be reimbursed for protective gear they bought for themselves between Sept. 10, 2001, and Aug. 1, 2004. Due to a shortage of personal body armor in the early days of the war on terrorism, some military members bought their own. Eligible members will be reimbursed in an amount not exceeding \$1,100 for any one piece of equipment.

■ The Shingo Prize, dubbed the "Nobel Prize of manufacturing," goes this year to Air Force Materiel Command's three air logistic centers. The award was made in October to Ogden ALC at Hill AFB, Utah, Oklahoma City ALC at Tinker AFB, Okla., and Warner Robins ALC at Robins AFB, Ga. The prize recognized their effective implementation of "lean transformation" practices.

■ The most advanced GPS satellite ever built was launched Sept. 25 from Cape Canaveral AFS, Fla. The \$75 million Lockheed Martin satellite was the first of eight GPS IIRs, developed to improve the system's navigation and timing signals on the ground. Three more GPS IIRs will be launched in 2006.

■ Spurred by this year's hurricane horrors, Air Force Personnel Readiness Center created a natural disaster registration form for Air Force, Air Force Reserve, and Air National Guard personnel, retirees, and dependents. The form would contain vital information to help Air Force families caught up in sudden evacuations.

■ Saudi Arabia has signaled that it might want to buy \$2 billion of new US military equipment. DOD announced on Oct. 3 that the package would include \$760 million in logistics and technical support for Saudi F-15, F-5, RF-5, and C-130 aircraft and for air-to-air missiles.

■ The US Customs and Border Protection agency on Oct. 4 took the wraps

off a Predator B unmanned aerial system acquired for the monitoring of US borders. Real-time images from the UAS will strengthen CBP's Arizona Control Initiative. The aircraft will fly long-endurance missions.

■ The B-17 *Memphis Belle* arrived at the National Museum of the US Air Force in Dayton, Ohio, on Oct. 12. The World War II bomber entered the restoration hangar after years of outdoor display in Memphis, Tenn. It will now undergo comprehensive restoration, expected to take at least seven years.

■ SSgt. Merle Y. Strang, a former Air Force chaplain's assistant, was posthumously awarded the Bronze Star for helping to evacuate orphans in a 1950 South Korean airlift. The medal was accepted by the Rev. Homer Strang on behalf of his brother in a Sept. 27 ceremony in Brewer, Maine.

■ The Senate Armed Services Committee in October waived a rule requiring DOD officials formerly employed in the defense industry to buy insurance on their corporate pensions. The rule was written to prevent conflict of interest between public decisions and private financial security. The panel lifted the requirement in light of the currently high premiums for such insurance.

■ Air Force officials on Sept. 28 announced the establishment of the Negotiation Center of Excellence at Maxwell AFB, Ala. The center is housed within Air University, and its goal is to provide problem-solving and communication skills to Air Force supervisors as part of their professional development.

■ USAF awarded CDO Technologies, Dayton, Ohio, a \$96 million contract for technical data support services at Robins AFB, Ga. The five-year contract carries an option for an additional three-year order.

■ The Air Reserve Order Writing System, a new Web-based personal orders process for Air Force Reservists, began operations on Oct. 1. The new system allows Air Force Reserve personnel to generate their military orders from any computer in the world.

■ Lockheed Martin's facility in Liverpool, N.Y., has received an \$89 million contract for six Air Navigation/Transportable Primary Secondary solid-state radar systems, radomes, diesel

engine generators, operator training, and 12 months' technical support in conjunction with foreign military sales to Pakistan. Work is scheduled to be completed by September 2009.

■ Air Force Portal, the worldwide Air Force intranet, has been made more secure with the development of the common access card and personal identification log-on procedure. This replaces the old system of logging on with just an ID number and password.

■ USAF has awarded an \$88 million contract to PSC Military Housing Co., Salt Lake City; Jones Lange LaSalle Inc., Washington, D.C.; Alvarez and Marshal Real Estate Advisory Service, New York, and FPS Advisory Group, Annapolis, Md. The contract supports the Military Housing Privatization Initiative to use underutilized real estate for federal facilities by providing privatized financial, legal, and real estate investment and development. Work is scheduled to be completed by September 2012. ■



**A1C Rahmon Harrell stands watch at Camp Bullis, Tex., beside the tractor truck he drove during Basic Combat Convoy Course training. Airmen continue to support the Army in Iraq with combat convoy drivers, gunners, and security forces.**

USAF photo by Robbin Creswell



**The last surviving Memphis Belle crew member, radio operator Robert Hanson (l) recently passed away. Hanson stands in front of the famous bomber in 1961. To his left are Margaret Polk, for whom the aircraft was named, pilot Robert Morgan, and bombardier Vincent Evans.**

## Memphis Belle Airman Robert Hanson Dies

Robert Hanson, the last surviving crew member of the famed World War II bomber *Memphis Belle*, died Oct. 1 in Albuquerque, N.M., at the age of 85.

Hanson was the radio operator of the B-17 that was one of the first US aircraft to survive 25 bombing missions over Europe during World War II. Between November 1942 and May 1943, the 10-man crew racked up 148 hours in the air and dropped more than 60 tons of bombs over Germany, France, and Belgium.

The crew shot down eight enemy aircraft, had five probables, and damaged a dozen more.

Hanson, along with each *Memphis Belle* crew member, received the Distinguished Flying Cross. After his tour of duty, Hanson became a salesman and then regional manager of Nalley Fine Foods in Walla Walla, Wash. He also worked for a candy company in Spokane before moving to Mesa, Ariz., and then to Albuquerque.

The aircraft and its crew were portrayed in a 1944 documentary, called "The Memphis Belle: A Story of a Flying Fortress," and in a fictionalized 1990 film, "Memphis Belle," which featured its final mission in 1943. The famous aircraft is now undergoing restoration at the National Museum of the US Air Force. (See "News Notes," p. 20.)

*Continued from p. 17*

new wings and other improvements have kept the big transports in good shape, said Col. Jim Blackman, 445th Operations Group commander.

All C-5As were built between 1968 and 1973, "but they still have a projected service life of 25 years," said Blackman.

The Galaxy, unlike the Starlifter, can load or unload from either end. The C-5 stands six stories tall and can carry more than a quarter-million pounds.

### All-Female Crew Flies into Combat

A recent C-130 combat mission in Southwest Asia featured an interesting statistical anomaly: It was flown by an all-female aircrew. Evidently, the composition of the crew was the luck of the draw.

The airmen—Capt. Carol Mitchell, 1st Lt. Siobhan Couturier, Capt. Anita T. Mack, SSgt. Josie E. Harshe, TSgt. Sigrid M. Carrero-Perez, and SrA. Ci

Ci Alonzo—were deployed to the 737th Expeditionary Airlift Squadron flying cargo and troops in and out of Iraq, Afghanistan, and the Horn of Africa, according to Air Mobility Command.

The all-female crew flew together for the first time aboard the Vietnam-era C-130 during a mission 6,800 miles away from their home base with the 43rd Airlift Wing at Pope AFB, N.C.

All the women aboard the C-130 agreed that while the mission did mark a unique experience in Air Force history, female crews shouldn't be singled out. "I don't believe the Air Force should seek out all-female crews," said Alonzo. "Instead, we should focus on experience."

During the mission, the crew transported 151 marines and their equipment.

### Russia, India Stage Wargame

Russia and India conducted joint military exercises Oct. 10-19 in western India's Rajasthan desert region.

The stated goal of the wargame was to increase interoperability between the two militaries. It focused on joint airborne, maritime, and anti-terrorist operations.

The exercise followed the unprecedented Chinese-Russian military wargames in August that served to showcase Russian military equipment. (See "Aerospace World: China, Russia Stage Large Exercise," October, p. 20.) China later purchased Russian aerial refueling tankers.

The August exercise took place under the auspices of the Shanghai Cooperation Organization.

India in July was admitted to the Shanghai group as an observer, as were Pakistan and Iran. The full members are Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

### "Wild Weasel" Exhibit Opens

A new "Wild Weasel" museum exhibit salutes the combat accomplishments of Air Force crews that suppressed air defenses in the Vietnam War.

The exhibit at the National Museum of the US Air Force in Dayton, Ohio, opened in September.

The museum exhibit features not only an F-105G Thunderchief Wild Weasel fighter but also a Soviet-designed SA-2 surface-to-air missile and launcher that the Weasels were built to destroy. Also seen in the exhibit are maps, flight gear, helmets, patches, and photos of Weasel crew members and aircraft.

## C-141 Flies Last Combat Mission

The Air Force flew the last C-141 combat mission on Sept. 26 in Iraq. The venerable Starlifter type will leave the inventory entirely in 2006.

The aircraft, operated by the 445th Airlift Wing at Wright-Patterson AFB, Ohio, transported sick and wounded patients from Iraq to the Army's Landstuhl Regional Medical Center, Germany. The flight marked the end of a five-day mission in which the Starlifter transported cargo to Europe before continuing to the Middle East.

The Reserve wing from Wright-Patterson now operates eight C-141s. Soon, all will be replaced with C-5s. (See "Reserve Wing Gains C-5As," p. 17.) Aircrews will continue flying C-141s within the continental US until the last one is flown to Davis-Monthan AFB, Ariz.

The Weasels flew some of the most dangerous missions in the Vietnam War, shooting antiradar missiles directly into the throats of the lethal North Vietnamese SAM radars.

In Vietnam, 34 Wild Weasel aircrew members were killed or missing in action, and another 19 became POWs.

The first Wild Weasels were modified two-seat F-100Fs, with the pilot flying and firing from the front seat and an officer in the back, tracking enemy radar systems. Later, the F-105F and F-105G took on the role. The F-4G, which retired in the mid-1990s, was the last dedicated Wild Weasel aircraft.

### Druyun Released From Prison

Darleen A. Druyun, the former Air Force acquisition official who pleaded guilty to violating conflict-of-interest laws by favoring Boeing in contracts, left federal prison on Sept. 30.

She served nine months at a medium-security facility in Marianna, Fla., was fined \$5,000, and was ordered to give three years of community service.

Druyun was imprisoned following a scandal involving Michael M. Sears, Boeing's former chief financial officer. Sears and Druyun discussed her taking a job with Boeing when she retired from Air Force civilian service. Such talks were illegal, since Druyun was involved in negotiating various contracts with Boeing, including a high profile deal to lease aerial tankers. Druyun eventually took the job, at twice her government salary.

Druyun also admitted favoring Boeing in some contracts in order to secure employment for her daughter and son-in-law.

The Druyun affair sparked broad reviews of contracts the Air Force had with Boeing in which Druyun was involved, as well as service and Pentagon acquisition practices. It helped to bring about the resignation of Air Force Secretary James G. Roche and service acquisition chief Marvin R. Sambur. (See "Washington Watch: Roche, Sambur Going, But Controversy Lingers," January, p. 8.)

Sears also was convicted of violating conflict-of-interest laws and was imprisoned for four months.

### US Gains Airfield in Kyrgyzstan

Kyrgyzstan has granted the US permission for indefinite long use of one of its airfields while American forces carry out anti-terrorist operations in the region.

Kyrgyzstan's decision follows the expulsion of US forces from Uzbekistan's Karshi-Khanabad Air Base. It also comes after a July statement issued by the Shanghai Cooperation Organi-

## Operation Iraqi Freedom—Iraq

### Casualties

By Nov. 7, a total of 2,035 Americans had died in Operation Iraqi Freedom. This includes 2,030 troops and five Defense Department civilians. Of those fatalities, 1,590 were killed in action, and 445 died in noncombat incidents.

There have been 15,477 troops wounded in action during OIF. This includes 8,227 who returned to duty within 72 hours and 7,250 who were unable to quickly return to action.

### September Marks Large Haul of Weapons Caches

Coalition and Iraqi troops seized 31 weapons caches in and around Baghdad in September, marking the largest monthly haul of weapons since May, according to military officials.

Troops were often tipped off by Iraqi citizens as to where the weapons were held.

US troops on Sept. 17 found one of the largest caches in the Radwiniyah area of western Baghdad, containing rocket-propelled grenade rounds, motors, and fuses, as well as rockets, mortar rounds, and TNT. A terror suspect was detained at the site and held for questioning.

During a Sept. 21 raid, US troops found a weapons cache in central Baghdad that included mortar rounds and rockets, RPGs, improvised explosive devices, and cell phones, which can be used to detonate IEDs. Five terrorists were killed during the raid.

Three more raids throughout Iraq were conducted in the last week of September, uncovering more mortar and artillery rounds, TNT, rockets, hand grenades, machine guns and rifles, and 75 pounds of ammunition.

## Operation Enduring Freedom—Afghanistan

### Afghanistan Casualties

By Nov. 7, 248 Americans had died in Operation Enduring Freedom, primarily in and around Afghanistan. The total includes 125 troops killed in action, 122 who died in nonhostile incidents such as accidents, and one Defense Department civilian.

A total of 646 troops have been wounded in Enduring Freedom. They include 255 who were able to return to duty in three days and 391 who were not.

### RED HORSE Replaces Ramp at Bagram

RED HORSE engineers from Nellis AFB, Nev., in October removed and replaced 60,000 square meters of ramp space at Bagram AB, Afghanistan.

The 1st Expeditionary RED HORSE Group replaced the ramp to give US and coalition aircraft new parking space.

The \$4.4 million construction project "was designed to withstand ... medium-load, fixed-wing aircraft," as well as rotary wing aircraft, according to Capt. Todd Williams, officer in charge of the RED HORSE detachment. "Up to this point, the Army has been using the ramp primarily to park their helicopters," said Williams.

The airmen removed the Soviet steel planking that covered the ramp space and excavated two to four feet of soil. A new base was made, and then 20-inch-thick concrete slabs were put in place to cover the new ramp.

zation demanding a date for US troop withdrawal from Central Asia.

In a meeting with Secretary of State Condoleezza Rice on Oct. 11, Kyrgyz President Kurmanbek Bakiyev pledged to cooperate with the US for open-ended use of Ganci airfield.

Bakiyev leads a new government in Kyrgyzstan; the base was initially used under arrangements with the previous government, ousted in March.

In a joint communiqué, Kyrgyzstan said it would "support the presence of

coalition forces in the Kyrgyz Republic until the mission of fighting terrorism in Afghanistan is completed, a mission supported by the United Nations."

The deal was struck after months of negotiations. Kyrgyzstan agreed to allow the US to keep using the base in exchange for additional funds for services and facilities. The higher payments were still under negotiation in late October, but the US had previously paid Bishkek \$40 million to \$50 million per year.



## Senior Staff Changes

**PROMOTIONS:** To **General:** Lance L. Smith. To **ANG Major General:** Eugene R. Chojnacki, Kenneth R. Clark, David F. Wherley Jr., Harry M. Wyatt III. To **ANG Brigadier General:** William R. Burks, Iwan B. Clontz, Donald E. Fick, David J. Hatley, Kenneth M. Jefferson, Robert H. Johnston, Daniel B. O'Hollaren, Randolph M. Scott, Mark F. Sears, Haywood R. Starling Jr., Ernest G. Talbert, Lawrence S. Thomas III, Guy M. Walsh, Elliott W. Worcester Jr., Robert J. Yapple.

**NOMINATIONS:** To be **ANG Brigadier General:** Steven R. Doohen, Brock John T. Strom, Edward J. Thomas Jr., Richard J. Utecht.

**CHANGES:** Brig. Gen. Kurt A. Cichowski, from Cmdr., 49th FW, ACC, Holloman AFB, N.M., to Dir., Ops., AFMC, Wright-Patterson AFB, Ohio ... Brig. Gen. (sel.) Susan Y. Desjardins, from Cmdr., 437th AW, AMC, Charleston AFB, S.C., to Cmdr., 34th Tng. Wg., USAFA, Colo. ... Brig. Gen. (sel.) Jonathan D. George, from Dep. Dir., P&P, ACC, Langley AFB, Va., to Cmdr., 55th Wg., ACC, Offutt AFB, Neb. ... Gen. William T. Hobbins, from DCS, Warfighting Integration, USAF, Pentagon, to Cmdr., USAF, Ramstein AB, Germany ... Brig. Gen. Jimmie C. Jackson Jr., from Cmdr., 305th AMW, AMC, McGuire AFB, N.J., to Dep. Cmdr., CAOC 7, Allied Air Forces Southern Europe, NATO, Larissa, Greece ... Brig. Gen. (sel.) Robert C. Kane, from Cmdr., 86th AW, USAF, Ramstein AB, Germany, to Vice Cmdr., 18th AF, AMC, Scott AFB, Ill. ... Brig. Gen. (sel.) James M. Kowalski, from Dep. Dir., Operational Plans & Jt. Matters, CONOPS, DCS, Air & Space Ops., USAF, Pentagon, to Cmdr., 552nd ACW, ACC Tinker AFB, Okla. ... Brig. Gen. William N. McCasland, from Vice Cmdr., Ogden ALC, AFMC, Hill AFB, Utah, to Vice Cmdr., SMC, AFSPC, Los Angeles AFB, Calif. ... Brig. Gen. (sel.) Clyde D. Moore II, from Spec. Asst. to Cmdr., AFMC, Wright-Patterson AFB, Ohio, to Dir., F/A-22 SPO, ASC, AFMC, Wright-Patterson AFB, Ohio ... Brig. Gen. Joseph F. Mudd Jr., from Cmdr., 552nd ACW, ACC, Tinker AFB, Okla., to Dep. Cmdr., CAOC 6, Allied Air Forces Southern Europe, NATO, Eskisehir, Turkey ... Maj. Gen. (sel.) Larry D. New, from Dep. Cmdr., CAOC 7, Allied Air Forces Southern Europe, NATO, Larissa, Greece, to Dir., Ops., AFMC, Wright-Patterson AFB, Ohio, ... Brig. Gen. Thomas J. Owen, from Dir., F/A-22 SPO, ASC, AFMC, Wright-Patterson AFB, Ohio, to Dir., Log., AETC, Randolph AFB, Tex. ... Brig. Gen. (sel.) Michael F. Planert, from Dep. Cmdr., CAOC 6, Allied Air Forces Southern Europe, NATO, Eskisehir, Turkey, to Mil. Executive, Natl. Geospatial-Intelligence Agency, Bethesda, Md. ... Brig. Gen. (sel.) David E. Price, from Dep. Dir., Financial Mgmt. & Comptroller, AFMC, Wright-Patterson AFB, Ohio, to Dir., Financial Mgmt. & Comptroller, AFMC, Wright-Patterson AFB, Ohio ... Maj. Gen. Jeffrey R. Riemer, from Dir., Ops., AFMC, Wright-Patterson AFB, Ohio, to Cmdr., Air Armament Center, AFMC, Eglin AFB, Fla. ... Maj. Gen. Marc E. Rogers, from Dir., Capabilities, Integration, & Transformation, AFMC, Wright-Patterson AFB, Ohio, to Cmdr., 19th AF, AETC, Randolph AFB, Tex. ... Brig. Gen. Frederick F. Roggero, from Dir., Public Affairs, OSAF, Pentagon, to Dep. Dir., Ops., AMC, Scott AFB, Ill. ... Maj. Gen. (sel.) Eric J. Rosborg, from Spec. Asst. to Warfighting Headquarters Implementation, USAF, Pentagon, to Asst. Dep. UnderSECAF, Intl. Affairs, Pentagon ... Gen. Lance L. Smith, from Dep. Cmdr., CENTCOM, MacDill AFB, Fla., to Cmdr., JFCOM, Norfolk, Va. ... Brig. Gen. (sel.) Paula G. Thornhill, from Spec. Asst. to Chairman, JCS, Pentagon, to Principal Dir., Special Plans, Near Eastern & South Asian Affairs, DUSD, Pentagon ... Maj. Gen. (sel.) Johnny A. Weida, from Cmdr., 34th Tng. Wg., USAFA, Colo., to Dir., Capabilities Integration & Transformation, AFMC, Wright-Patterson AFB, Ohio.

**SENIOR EXECUTIVE STAFF CHANGES:** James W. Cluck, to Dir. & CIO, Spec. Ops. Networks & Communication Center, SOCOM, MacDill AFB, Fla. ... Robert S. Jack II, to Dep. Dir., Info., Svcs., & Integration, OSAF, Warfighting Integration & CIO, Pentagon ... Kevin E. Williams, to Dir., Global Innovation Strategy Center, Office of Dep. Cmdr., STRATCOM, Offutt AFB, Neb.

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## Boeing Loses Contract to Lockheed

A classified USAF space program contract has been taken away from Boeing and given to rival Lockheed Martin.

The move came after the initial program experienced billions of dollars in cost overruns, according to the *New York Times*.

The National Reconnaissance Office in September issued a statement saying that the Future Imagery Architecture project, on which Boeing was the contractor, was being "restructured," but few details were given.

The *Times* said a significant chunk of the work had been given over to Lockheed, which initially lost out in the competition for the \$15 billion project. The announcement came following reports that Director of National Intelligence John D. Negroponte recommended an overhaul of the program.

Negroponte signaled in his review that the remainder of the program involving radar for surveillance would stay at Boeing.

USAF announced in September that it would review all space programs that are behind schedule and over budget after the Senate cut \$500 million in three major military space programs.

## USAFA Withdraws Chaplain Paper

The Air Force Academy has withdrawn a document that allowed military chaplains to evangelize troops not affiliated with a specific religion, the Pentagon announced in October.

The academy acted shortly after a 1977 academy graduate, Michael L. Weinstein, sued USAF, seeking stricter policies against evangelization.

The "code of ethics" for chaplains said, "I will not proselytize from other religious bodies, but I retain the right to evangelize those who are not affiliated."

Weinstein filed the lawsuit in protest of the code of ethics that he believed violated the Constitution's separation of church and state. The lawsuit said the academy fostered discrimination and harassment of non-Christians.

Weinstein repeatedly asked the Air Force to revise the policy, but the request was denied until it was withdrawn entirely.

The code of ethics was written by the National Conference on Ministry to the Armed Forces, an association of religions that provide chaplains to the military. The document was never officially recognized by the Defense Department, but was handed out to chaplains at the Air Force Chaplain School, Maxwell AFB, Ala., according to the *Washington Post*. ■

# Action in Congress

By Tom Philpott, Contributing Editor

## Pay Raise In the Bag

The military is assured of getting a 3.1 percent pay raise in January, even if the Senate fails to pass a 2006 authorization bill, as seemed likely.

Authority for the pay raise actually cleared Congress in late 1999, when lawmakers approved the Fiscal 2000 defense authorization act. That law directed that annual military raises from 2001 through 2006 be set one-half percentage point above private sector wage growth, as measured by the government's Employment Cost Index (ECI).

ECI data for shaping the 2006 pay raise show private sector wages rose 2.6 percent. With the statutory formula entitling the military to another half percent, the actual January raise would be 3.1 percent.

The Senate in recent years hasn't even included a military pay raise in its authorization bill, recognizing that the 1999 statute will provide one.

The House passed its defense authorization bill last June, with a specific provision for a 3.1 percent military pay raise.

## Their COLA Tastes Better

When it comes to this year's pay raises, military retirees will do better than their active duty counterparts. The reason is a more general cost-of-living adjustment.

The Dec. 1 COLA for military and federal civilian retirees, their survivors, and Social Security recipients will be 4.1 percent, with the increase appearing in Jan. 1, 2006, paychecks.

Retiree COLAs are based on inflation, as measured by price changes for a market basket of goods and services from the third quarter of 2004 through the third quarter of 2005. In the past year, inflation outpaced private sector wage growth, leaving federal annuities to rise faster than military pay and allowances and federal civilian salaries.

## Rising Health Care Costs ...

The Pentagon's top health official cautioned lawmakers to pay attention to a deepening cost crisis for military medicine.



Winkenwerder says crisis is deepening.

William J. Winkenwerder Jr. told a House subcommittee that annual military health care spending has doubled in a mere four years, rising from \$18 billion to more than \$36 billion.

The increase stems largely from benefit enhancements for retirees and their families, he said.

Winkenwerder, assistant secretary of defense for health affairs, also blamed the rising costs to the government on a decade-long freeze on Tricare enrollment fees and co-payments, which otherwise would help offset DOD's expense.

Plans call for the Defense Advisory Committee on Military Compensation to release a final report in April 2006. It is a review of efforts to modernize military pay and benefits, and it is expected to offer a blueprint for slowing the surge in health care spending.

## ... And Ways To Curb Them

The study is said to be pondering several ways to rein in health costs.

They include:

- Increases in enrollment fees and co-pays for Tricare's Prime managed care option, with future adjustments based on inflation.
- An increase in annual deductibles for users of Tricare Standard, the fee-for-service option.
- A first-time annual enrollment fee for Tricare Standard.
- New incentives for military retirees working in second careers to use employer-provided health benefits.
- Offering tax-deferred health savings accounts to military beneficiaries.

Military pharmacy budgets have increased 500 percent since 2001 to more than \$5 billion a year. By 2009, 75 percent of military health dollars will be spent on the cost of paying for retiree health care, not for active duty service members or their families, Winkenwerder said.

Tricare has become so attractive for military retirees in second careers that many more now use Tricare rather than employer-provided health insurance. Indeed, some employers now pay retirees cash incentives if they use their Tricare benefits rather than civilian work benefits.

"It's our belief that this is not what the Congress had intended," Winkenwerder said.

## Reserve Health Benefits

Winkenwerder warned that Congress will only exacerbate the military health care budget crisis if it enacts a provision to open Tricare Reserve Select (TRS) to all drilling Reservists and National Guardsmen.

Congress last year passed the premium-based TRS to entice demobilizing Reserve and Guard personnel to extend their service obligations. That plan, Winkenwerder said, "hits the spot" in balancing the needs of reservists and needs of the nation.

Winkenwerder criticized as costly and unneeded a Senate-approved plan to open TRS to all drilling reservists, saying the projected cost (\$3.8 billion over five years) is unacceptable, and the benefit will not encour-

age reservists to extend their service commitments.

He said 80 percent or more of current reserve forces have employer-provided health insurance.

TRS, a scaled-down version of Tricare Standard, is open only to members deactivated from post-9/11 deployments who agree to remain in drill status. By late October about 16,000 beneficiaries, including family members, were enrolled.

### Senate Resumes Defense Work

The prospect of substantial benefit gains was revived in early November after Senate leaders resumed work on the long-stalled 2006 defense authorization bill.

A two-part amendment from Sen. Bill Nelson (D-Fla.) to improve the military's Survivor Benefit Plan passed on Nov. 8 by a 93-5 vote. Certain military widows and a group of unemployable disabled retirees would benefit if the full authorization bill passes.

One part would move up by three years (to Oct. 1, 2005) the effective date of an SBP paid-up rule. Premiums would be considered paid up after 30 years or at age 70, whichever occurs later. Congress adopted the rule several years ago but delayed making it effective until October 2008.

Nelson's amendment also would eliminate a dollar-for-dollar reduction in monthly SBP benefits for surviving spouses who accept tax-free VA Dependency and Indemnity Compensation. The compensation is payable if a service member or retiree's death is service related.

The Senate also was considering an amendment to accelerate restoration of full retired pay to retirees with 20 or more years of service drawing VA compensation at the 100 percent level because they are deemed unemployable. These 28,000 IU retirees are seeing retired pay restored, but on a 10-year phase-in plan.

The House already has voted to accelerate concurrent receipt for these IU retirees so their retired pay is entirely restored by Oct. 1, 2009, rather than by Jan. 1, 2014. Rep. Harry Reid's (D-Nev.) amendment, if adopted, would match that.

### Fighting Avian Flu

Military personnel will be among the first Americans to receive a vaccine for bird-transmitted flu, Winkenwerder told the House subcommittee.

"We're been concerned about, and working on the issue of preparedness and the ability to respond to, a



AP photo by J. Pat Carter

Nelson pushed an improved SBP.

pandemic avian influenza-type circumstance for well over a year," he said.

Since the spring of 2004, he said, DOD has been sharing information on a potential avian flu epidemic with combatant commands to develop response plans.

The department also contracted to buy almost 2.5 million doses of Tamiflu for delivery starting in November.

The neuraminidase inhibitor can reduce the severity and duration of illness caused by seasonal influenza. Unfortunately, there is no commercially available vaccine yet known to protect humans from the H5N1 virus, the avian flu strain that has appeared in Asia and Europe.

Defense officials worked with federal health agencies to provide several million doses of any H5N1 vaccine to military personnel when available.

The Defense Department also is involved in worldwide surveillance for an avian flu, collecting samples through laboratories in Indonesia and Thailand. Both are "important sentinel surveillance sites" for an avian flu outbreak, Winkenwerder said.

### Commission Delay

The Veterans' Disability Benefits Commission, created by Congress to modernize veterans' disability benefits, needs almost double the allotted time to finish its work.

Congress established the commission to conduct a comprehensive review of disability benefits for veter-

ans and survivors. Lawmakers set a deadline for a report to the President and Congress. The commission was to get a report out within 17 months of the commission's first meeting in May 2005.

Ray Wilburn, commission executive director, said a final report will be delayed until the fall of 2007, to allow the Institute of Medicine of the National Academies of Science and the Center for Naval Analyses time to conduct major studies. These studies are needed to inform and educate the commission on complex medical issues.

### More Oppose PTSD Review

A Department of Veterans Affairs plan to review documentation for 72,000 veterans awarded post-traumatic stress disorder ratings of 100 percent disabled is taking more fire.

The Senate voted in September to block the VA from conducting its review of five years of PTSD cases until it can justify the effort for Congress. In October, House Democrats joined in criticizing the plan.

Jon A. Wooditch, acting VA inspector general, defended the review. He testified that from Fiscal 1999 through 2004, the number of PTSD cases grew by 80 percent, and PTSD benefits jumped 149 percent—from \$1.7 billion to \$4.3 billion.

The number of PTSD cases with 100 percent disabled ratings rose fourfold, from 34,568 in Fiscal 1999 to 102,177 in 2004.

The IG reviewed a sampling of 2,100 case files and found a 25 percent error rate, which led to the proposed review. (See "Action in Congress: Senate Votes To Stop PTSD Review," November, p. 28.)

"The 25 percent error rate is not an indicator of fraud," Wooditch said. It reflects "noncompliance with [Veterans Benefits Administration] rules and regulations concerning required documentation to justify and support rating decisions."

The review will allow VA to "identify instances where the documentation requirements were not complied with," he said. Where the claimant can't show entitlement to disability compensation, "appropriate due process action should be initiated to resolve the matter," Wooditch said.

Reps. Tom Udall (D-N.M.) and Shelley Berkley (D-Nev.) said they want the review blocked, arguing that it aggravates the strain on veterans with PTSD. Udall called it a paperwork exercise for the VA but "jolting" to veterans. ■

Soon, the Air Force will know whether it will modernize its force or have to accept something less.

# For Fighters, a Moment of Truth

By John A. Tirpak, Executive Editor

*A pilot climbs down from an F/A-22 after a training sortie at Tyndall AFB, Fla. The Air Force is in urgent need of decisions from top defense leaders about whether the future of its fighter fleet will be with mostly F/A-22s and F-35s or legacy aircraft like the F-15 (background).*

**T**HE Air Force must soon answer basic questions about the future size and composition of its fighter force. Defense leaders have long postponed decisions about whether the bulk of USAF's fighters should be replaced or, alternatively, rehabilitated. They can't delay much longer, however. Unless USAF takes decisive action—and soon—the capability of its fleet will suffer, and the Air Force may not be able to discharge its commitments.

The Air Force wants 381 F/A-22 Raptors as its high-end fighter element and about 1,700 F-35 Joint Strike Fighters as its backbone force. At this point, however, Pentagon officials have declined to approve more than 179 Raptors, meaning that F/A-22 production would come to an end in 2008. Meanwhile, production of the F-35 would not start until 2011, so there would be a three-year gap in fighter-building.

In the meantime, the age of existing—that is, “legacy”—fighters is creating serious problems. Fleet maintenance not only grows costlier each year but also puts more and more strain on ground crews, which are chronically overworked. Additional repairs mean more money must be diverted from



Lockheed Martin photo by John Rossino



**USAF expects the F-35 Joint Strike Fighter to be the backbone of the future fighter fleet. By all accounts, it will be a great airplane, but there have to be enough to go around. Good as they'll be, the new fighters can't be in two places at once.**

enhancements such as targeting systems, affecting capability. And there are only so many times a tired fleet can be patched up before even bigger problems set in.

Mindful of the great gap in capability between fourth and fifth generation fighters, the Air Force had planned to replace more than 800 F-15Cs, F-15Es, and F-117s—all fourth generation aircraft—with 381 F/A-22s, the first of the fifth generation types. However, recent events have scrambled the picture somewhat.

**Big Choice**

The date is fast approaching when Air Combat Command must make a choice. It can either assume that it will get a sufficient number of new airplanes (and thus eliminate the need for more service life extensions on its fighters, now averaging about 20 years old), or it can assume the opposite and so begin a broad, expensive renovation of the existing fleet—something ACC would rather not do.

“We kind of know what that date is,” said ACC Commander Gen. Ronald E. Keys. However, he declined to specify what it is.

“I don’t want to spread panic,” Keys said, half-jokingly. The date is not “mathematically achieved,” he added, but it is based on growing experience with USAF’s old fleet, which routinely presents new and unpredictable problems.

With respect to planned procurement of the F/A-22, Keys declared that 381 is still “our number,” but he conceded

that the recent cuts of the planned buy of Raptors to 179 means “we’re going to have to rethink that.”

Keys laid out his views in a series of September press interviews about the status of his forces.

He said his effort to plan the force has been frustrated this year. They have been hit by a double whammy of a stretched-out Quadrennial Defense Review and the base realignment and closure process. Initially, plans called for the Pentagon to wrap up its QDR this fall, but now the actual end point has been pushed off to February. The review is supposed to confirm or recast service roles and missions, set priorities

for the acquisition of new capabilities, and establish military paths for carrying out national strategy.

Few expect the QDR to specify exact numbers of F/A-22s and F-35s, but officials anticipate that it will yield clear guidance that will help determine the sizes of these inventories.

Supplementing the QDR, however, will be an “optimization” review of fighter aviation, set in motion by Acting Deputy Defense Secretary Gordon R. England. (See “Washington Watch: England Launches New Fighter Review,” October, p. 12.) Though it may influence the upcoming Fiscal 2007 budget, this review technically won’t be finished until next September.

That date comes very close to the point when Lockheed Martin will have begun accepting the last long-lead parts for the 179th Raptor. The inventory was slashed from 270 to 179 last December in a last-minute defense budget-cut drill.

As for BRAC, the Air Force had a strong need to know how many expensive installations it would have to continue operating in years ahead. Without that knowledge, USAF would not know how much money would be available for fighter modernization. Now, it appears that the BRAC issue has been mostly resolved. The big question that remains, said Keys, is this: “How much of the savings do we think we will actually be allowed to keep?”

Keys is eager to get the results of all of these analyses. “We need the QDR,” said Keys. “I need some direction, here.”

Pressed to offer his assessment of the



USAF photo by TSgt. Adam Johnston

**ACC had planned an elaborate upgrade for the A-10 fleet to keep it effective and relevant for another 20 years. Now, wing cracks force a choice between enhancements and safety-of-flight repairs. Such choices are becoming all too common.**

long-term health of the fighter inventory, Keys said, "We'll be ... OK."

So far, ACC has not encountered any major structural problems that would force the grounding of any type of fighter in the fleet—at least, nothing of the magnitude of Air Mobility Command's problem with wing boxes on the C-130E.

Keys noted that most Air Force F-16s have just come through the Falcon STAR program, which addressed many issues of structural stress and fatigue. The F-16s aren't "falling off any cliff," said Keys. Moreover, he noted, the Air Force has made a decision to replace the computers and radars on some of the youngest F-15E fighters.

### Train Wreck?

However, Keys said, "there is always the opportunity for a train wreck" because of all the unknowns of operating a fighter force of unprecedented age.

He revealed, for example, that ACC has discovered wing cracks in some of its A-10 attack aircraft. Cracks have formed in some of the "thin-skinned" models that comprise 242 of the 356 A-10s in the inventory. (Later versions have a thicker wing skin.) According to Keys, the problem is serious enough to require him to reassess whether to go forward with a long-planned upgrade for the A-10, one that would include the addition of precision engagement systems and a possible re-engining.

"If I have to reskin the wings [as a result of the wing crack], that takes money away from precision engagement," warned Keys.

The ACC commander said he's worried that the situation could affect his training fleet. "What do you do with the training fleet if you take all the really good airplanes and make them operational?" he asked. "We have to make that determination now: Do I want to reskin those wings? ... How much would that cost? ... I've only got X amount of money, and every time I do something, now I have X-minus."

Alternatively, the Air Force might try to solve the problem by accepting two different types of A-10s—one that can "go to high altitude, ... work at high temperatures, etc.," and one that can't. Keys would prefer that whatever stays in the fleet be similarly configured "all-up" aircraft.

He also acknowledged that there are flight restrictions on his F-15Cs and F-117s, as well as some of his bombers. A flight restriction means the aircraft is

*The Air Force believes it has won the argument about the need for the F/A-22. Critics who opposed the Raptor based on the notions that it was over powerful, a Cold War relic, or didn't work have been silenced. The only issue now is, how many will USAF be allowed to buy. Indications are, that number won't agree with how many USAF needs.*



USAF photo by TSgt. Ben Bloker

prohibited from performing to the limits of its design because of some structural weakness that could cause catastrophic damage. For example, F-15Cs may not fly at maximum speed because of the fear that their elevators and stabilizers might become delaminated and rip off in a dash. Such an accident has already occurred.

The cost of keeping the aging machines going is getting higher and higher. As they exceed design lives, they experience failure in their "life of the aircraft" parts and systems—such as wiring bundles and stringers. To maintain the airplanes, fighter squadrons now routinely practice cannibalization, Keys reported.

Worse, ground crews are putting in very long days to keep the force flying. As a result, costly maintenance mistakes have begun to increase. "They're working very long hours, very hard, just to hold things together," Keys continued.

### Cannibalization

"Cannibalization is sort of a way of life in our Air Force right now," Keys asserted. "Every time I deploy, if I'm going to take six airplanes, I might take a seventh or eighth airplane, and one of them is going to be a cann bird [that is, kept specifically to use for cannibalized parts]. As soon as it gets there, I start taking pieces off of it." When new parts arrive, they are put on the sacrificial airplane, but the replacement process

itself is risky. As Keys noted, "The probability of breaking it when you take it off is high."

Ground crews are somehow turning airplanes that, given all their maintenance problems, shouldn't be able to fly, he went on. There's "no way" that USAF should be able to sustain a fleet with the age problems of today's fighters.

The numbers tell the story. Keys reported that, since 1990, maintenance man-hours per flying hour have increased by about 34 percent. Fighter mission capable rates are hovering around 75 to 80 percent.

Because of the age of the aircraft, Keys said, "all of the scheduled maintenance is starting to be eaten up by my unscheduled maintenance."

Money also is being consumed by the wars in Iraq and Afghanistan. Keys noted that ACC is currently operating 16 expeditionary bases in or near the theater—it was 38 at the height of air operations in 2003—and they don't come cheap.

The force is grappling with constant deployments, training, and the frustrations of working on airplanes that constantly break. Given all that, Keys is worried.

"What we see in our people, what we worry about, is the turbulence, the stress, the chronic tiredness of [our] force—that they start to overlook things that they would never overlook," he warned. He further noted that, because of the con-



**The F-117 was the first operational stealth fighter, but it debuted 24 years ago, and the fleet is showing its age. As with many systems, USAF prefers to keep a smaller, fully capable fleet rather than a larger, less effective one.**

stant drive to generate aircraft and the usual delays in doing so, some airmen are taking “foolish risks.”

These risks usually fall into the category of skipping steps or exercising poor judgment, Keys said. Mistakes in maintenance—some that cost money, others that risk lives—and errors in judgment illustrate that the force is so “tired and busy, we’re forgetting our principles.” Due to the backbreaking pace and the constant frustration, “we’re needlessly losing very talented people,” he said.

The Air Force’s plan is to reduce the numerical size of the fighter force because the incoming F/A-22 and F-35, coupled with new, strap-on pods, munitions, and other capabilities for legacy fighters, will provide overall capability similar to that of today but with fewer aircraft. “The tag line is that, by 2015, we’ll be 25 percent smaller in fighter tails and 10 percent smaller in total tails,” Keys noted.

### “Evil Spirits”

Each year, said Keys, USAF will retire the equivalent of a wing or two of older aircraft and replace them with newer ones, but not on a one-to-one basis. The first aircraft selected for the boneyard will be those with chronic maintenance problems—those “possessed by evil spirits,” Keys said. Next in line will be those about to enter a long and expensive programmed depot maintenance, the avoidance of which will save money.

Most likely, F-16s will be the main aircraft taken out of service, said Keys, “just because we have so many of them.”

The F-15Es, being among the youngest fighters in the inventory, are “probably going to stay with us the longest,” while it’s still uncertain how many F-15Cs will be retained, although Keys mentioned 170 as a ballpark figure.

The F-15Es will get a new core processor, Keys noted, because “we’re about out of memory and processing power, and we need to update the avionics.” This upgrade is called the “Golden” F-15E. The increase in reliability that will ensue from the new equipment is more attractive than the increase in capability, he said.

“I don’t see that we’re going to run into any problems there,” Keys said. Some number of F-15Es will get an active

electronically scanned array (AESA) radar. This will improve both targeting and mapping capabilities, but it’s not been established how many will get this aspect of the upgrade.

The Air National Guard has expressed interest in getting new AESA radars for their F-15Cs, but Keys said it will take a lot of analysis to see if that is justifiable. ANG wants the radar to increase its homeland defense capability—not only against aircraft but also against cruise missiles, which the current version of the F-15C cannot easily defeat.

Keys pointed out this problem: Once these aircraft are designated for homeland defense, it will be tough to call on them for an overseas deployment. “Then, ... we’re back in the days of Air Defense Command,” he said, when such aircraft would be committed solely to sitting on alert in the continental United States.

“They don’t have the ability to penetrate and get in close against a fourth generation [fighter] threat,” Keys noted. “The F-15 is a great airplane, if you [the enemy] let me get within missile range of you, but, if you [the enemy] are shooting at me before I can shoot at you, then I have problems.”

Keys said ACC will install one such radar and evaluate its capability, but such upgrades are becoming unaffordable.

He said, “We’ve probably got 15 or 16 studies going on at ACC” that are designed to answer the question: “For my next discretionary dollar, where do I get my best investment credit?” He said he can no longer afford to look at ideas for enhancements that will only



**The F/A-22 is the only aircraft for the foreseeable future that can penetrate modern defenses and live to tell the tale. Without it, strategy will have to be rethought. In operational tests, it easily and routinely defeats superior numbers of legacy fighters.**



provide a few percentage points of additional capability in a system. To make the cut, the proposal must yield much greater dividends.

"I'm the guy who has to drive a stake through its heart, because we cannot afford to continue to spend money researching it, ... testing it, and you go, 'Yeah, it's really good, [but] we're not going to buy it.' And there's more of that to come."

### Buck Fifty-Three

Instead, Keys explained, he has to invest each dollar so that he "can get \$1.53 worth of effect on the battlefield."

Keys is loath to take the F-117 stealth aircraft out of the picture until he can be assured of getting a full-up replacement. The F/A-22, with its combination of stealth and speed, can do some of the F-117's mission, but Keys sees the Joint Unmanned Combat Air System as taking on some of the duties, too.

The J-UCAS program, in Keys' view, will not yield a production vehicle but "a production kind of technology." He is not completely convinced yet that the contractors can build the aircraft small enough "so that stealth alone will allow them to survive" and yet large enough to "do the things that need to be done, like dropping larger bombs" and carrying enough fuel.

Keys doesn't believe the J-UCAS will compete with the F-35 fighter. He believes the two are still, at this stage, "complementary." Unmanned aircraft systems, he thinks, have a long way to go before they can truly compete with the F-35, with the main disadvantage being the lack of human brainpower that helps the fighter/fighter-pilot combination prevail. Without a doubt, Keys said, the unmanned systems will be valuable as adjuncts to manned strike forces, "so that, as I'm coming in [to the target area], I have not only the information from my sensors but the information from [those of] somebody who's already been in there. ... He knows a lot more than I know. So that enhances the capability of both."

He also noted that the 25 percent reduction in the fighter fleet applies to manned aircraft. Still to be determined is how many unmanned combat aircraft systems will be entering the inventory. He's perfectly willing to turn over the strike and fighter missions to an unmanned system if it can do the job.

"Once you get to the point where they can do everything a manned airplane can do, then, yeah, we ought to use it,"



USAF photo by TSgt. Ben Blaker

*The F-15 and F-16 have been top guns for about 30 years, but only through heroic efforts by ground crews are they kept up to snuff today. The ever-rising cost of fixing legacy fighters must be weighed against the price of new airplanes.*

he said. "I wouldn't want my granddaughter 'going downtown' ... if some electronic gizmo can go down there instead of her."

Keys said he doesn't think there will be a fighter shortage in the next decade. The technology of the F/A-22, now being delivered to operational service, and in the F-35 Joint Strike Fighter, scheduled to begin deploying in seven years, is so good that each will be worth two or three of the ones it replaces, he said.

### No Bathtub

He discounted the prospect that there will be a dangerous "fighter bathtub," a shortfall of fighter tails predicted for the period 2008-18. (The term stems from the use of a USAF line chart, widely distributed in the last five years, showing the number of fighters in USAF service dropping, bottoming out, and then slowly rising again in the out-years as replacement fighters enter the force. The dip in the shape of the trend line—the bathtub—was identified as a period of potential risk as USAF may have more commitments than aircraft to meet them.)

"Frankly, when you've got an F/A-22 that's 15 times better than the F-15, ... and JSF that's certainly going to be three [to] ... 10 times better than an F-16, ... you really can't make a case that you've got to have a one-for-one or even a one-for-two" replacement rate, Keys asserted.

However, he warned that it would be foolish to assume that even the best technology can solve all problems.

"You can have an infinitely capable airplane, but, if you need it in two places

at the same time, it doesn't work," he said. "My problem is, my work pops up in different places."

It has become fashionable in QDR-related studies and analyses to assume that the Air Force, having helped "win decisively" in one major theater war, will simply "swing" to another for a "swift defeat."

"That's pretty ... bold talk," Keys said. "People who say, 'Just swing the force' have never swung a force." There are always difficulties pulling up stakes and redeploying swiftly, especially from one war zone to another, he said. It would help to have more than a minimal number of aircraft.

He went on, "Anything I put in my budget is less than I need." Keys added that, given unlimited funds, he would first buy 381 F/A-22s; second, give money to Air Force Space Command to "fix up" a "couple of space capabilities"; and third, give more money to maintenance accounts, "to get all my legacy airplanes up and fixed, once and for all."

He said the F/A-22 no longer needs to demonstrate that it's ready for service, and it has silenced critics who, at various times, have complained that it either doesn't work or is a Cold War relic. "It works perfectly," Keys said, as proven in operational tests. Moreover, he went on, "I'm buying the F/A-22 for whatever happens 30 years from now. ... I think we've won that argument. ... So now the argument is how many do you need." He said the Air Force is unshakable in its belief that "381 [Raptors] ... in exchange for 880 or [so] existing fighters is a pretty good investment trade. So that's our number. We believe it." ■

# Where BRAC Came Out

In the base realignment and closure round,  
the Air Force sought a more rational setup.

By Adam J. Hebert, Senior Editor



**B**rooks City-Base, Tex. ... Onizuka AFS, Calif. ... Kulis ANGB, Alaska. ... Each of these well-known USAF locations is now marked for extinction.

Cannon AFB, N.M., hasn't exactly been ordered closed, but it has lost its mission. Cannon has until late 2009 to find a new one. If it doesn't, then Cannon, too, will vanish.

Pope AFB, N.C., is a special case. It will survive. No longer, however, will it be called Pope Air Force Base and no longer will it belong to the Air Force. It is to be absorbed by adjacent Ft. Bragg, an Army base in North Carolina, to create a joint super-base under Army administration.

If all goes as planned, these and other Air Force installations will soon join the ranks of such late, great bases as Loring in Maine, McClellan in California, and Wurtsmith in Michigan. Each in its turn was either shut down or drastically realigned in a DOD base closure round.

As the Cold War drew to a close in the late 1980s, the Pentagon began consolidating its expansive basing structure around the United States. DOD in 1988, 1991, 1993, and 1995 staged rounds of base realignment and closure—BRAC, in defense parlance. They produced a major contraction and helped the armed forces avoid billions in infrastructure costs.

Even so, the US military still had significant excess capacity. The military itself shrank by about 40 percent, but the US basing system declined in size by only 21 percent.

Congress is loath to approve base closures, so, when lawmakers agreed to authorize one in 2005, the Pentagon resolved to make the most of its opportunity. Gen. John P. Jumper, then Air Force Chief of Staff, said, "This round of closures and realignment represents the last opportunity we will have, for a generation, to reset our forces."

During late 2004 and early 2005, the Air Force prepared a list of proposed actions that were then coordinated and modified by the Office of the Secretary of Defense.

This list of Pentagon recommendations was forwarded to a specially

impaneled BRAC commission, led by former Secretary of Veterans Affairs Anthony J. Principi. All members were former high-ranking military officers or federal officials.

The commission held hearings and, in August, voted its own BRAC recommendations. The commission's list was sent to President Bush, who approved it Sept. 15 and forwarded it to Congress. By law, Congress could only accept or reject the entire list but not tinker with it. When Congress declined to reject the list by mid-November, the recommendations became law.


### Two USAF Goals

The Air Force—and DOD as a whole—sought to do two things with its proposed list of basing changes.

The first goal, as always, was to save money. Excess infrastructure is inefficient. Shuttering parts of a system built for a much larger Cold War force would free up funds the Pentagon desperately wants for modernization, quality of life programs, and readiness improvements.

This BRAC round will be "a success for the Air Force," Lt. Gen. Stephen G. Wood, deputy chief of staff for plans and programs, told *Air Force Magazine*.

However, he said, the financial impact



One of USAF's biggest and most controversial proposals was to close Ellsworth AFB, S.D., and move its B-1B bombers (pictured) to Dyess AFB, Tex. The BRAC commission rejected the move.

will be “significantly different” from what was expected. The original DOD proposal was expected to save the Air Force \$14.5 billion over 20 years. The Air Force now estimates it will save \$7 billion over 20 years, said Wood.

The panel estimated that the approved plan, overall, will generate DOD-wide savings of \$35.6 billion over 20 years, including personnel savings. If the personnel element is factored out—as some say it should be—the amount is \$15 billion over 20 years.

The commission approved, without change, 119 of DOD’s 190 recommendations. Thirteen proposed changes were rejected in their entirety. The remaining 58 were modified in some way, large or small.

Saving money wasn’t the only goal. This BRAC round was unique in that it was used to speed up military transformation. “The department must be allowed to reconfigure its infrastructure to best support the transformation of our warfighting capability,” DOD officials maintained.

In a major BRAC thrust, the Air Force attempted to reorganize and redeploy



USAF photo by SSgt. Joshua Strang

**USAF sought operational and training synergies. A-10s from Eielson AFB, Alaska, shown here, will move to Moody AFB, Ga. They will unite with Warthogs from Pope AFB, N.C., to train for close air support with the Army.**

its active duty, Air National Guard, and Air Force Reserve components under its “Future Total Force” banner. The consolidation was to be felt by all of the services, however.

The BRAC commission concurred with the need for transformation. “The armed forces and the Department of Defense are the stewards of installations ranging from some built origi-

Staff map by Zaur Elyenbekov



**DOD proposed nine major Air Force closures, not counting the handover of Pope AFB, N.C., to the Army. The BRAC commission approved four; without a new mission, Cannon will also close. Ellsworth AFB, S.D., Niagara Falls Arpt., N.Y., and Pittsburgh Arpt., Pa., were saved by the commission. Many other bases are being significantly realigned and will lose more than 400 personnel.**

nally to defend our harbors during the age of sail to others defending against intercontinental ballistic missiles," the commission wrote in its final report, released on Sept. 8.

Earlier this year, press reports indicated the Pentagon might want to close up to 25 percent of its basing capacity, but the department's recommendations this spring turned out to be much less dramatic. Cannon and Ellsworth AFB, S.D., were the only full-scale major Air Force bases marked for closure under the Pentagon plan. (Pope doesn't count as a base closure.) (See box: "A Tangled Web," at right.)

### The Big 33

DOD had proposed 33 "major" closure recommendations affecting all four services. A major closure is defined as any action shutting down a base whose replacement value exceeds \$100 million. Of the 33, the panel approved 21, rejected five, and altered seven.

Of the 33 targeted facilities, the Air Force owned nine (not counting Pope). Only three were closed outright. They were:

- General Mitchell Arpt./ARS, Wis.
- Kulis ANGB, Alaska
- Onizuka AFS, Calif.

Three of the nine were kept open. They were:

- Ellsworth AFB, S.D.
- Niagara Falls Arpt./ARS, N.Y.
- Pittsburgh Arpt./ARS, Pa.

The other three targeted facilities had ambiguous outcomes and were kept on life support. They were:

- Cannon AFB, N.M., which will close in 2009 unless the Air Force assigns it a new mission.
- Otis ANGB, Mass., which will lose its fighter aircraft but be kept open and manned as an "enclave"—facilities with no aircraft.
- W.K. Kellogg Arpt., Mich., also kept open as an enclave.

Additionally, Brooks City-Base, Tex., while no longer a USAF-owned facility, is slated to lose the USAF medical research and development units that leased space at Brooks after it was signed over to San Antonio. These and other military agencies will move to military bases in Maryland, Ohio, and Texas.

The BRAC commission approved 86 percent of DOD's suggestions, but spared many of the highest profile facilities on DOD's hit list.

For its part, the Air Force will be able to carry out much of the force rebalancing that it sought, but the BRAC

## A Tangled Web

The Base Realignment and Closure Commission called the Pentagon's list of recommended actions for 2005 extraordinarily difficult to evaluate. The commissioners wrote that they "struggled to fully understand the net impact on bases that were both gaining and losing missions at the same time, and they knew that rejecting one element of a recommendation could potentially set off a cascade" of effects at other installations.

Compounding the difficulty "was the decision by DOD to routinely mingle unrelated proposals under the title of a single 'recommendation.'"

The Air Force's desire to improve joint A-10/Army training illustrates the ripple effect of these interconnected changes.

Pope AFB, N.C., will become an Army airfield under the control of adjacent Ft. Bragg. Pope's A-10s, belonging to the 23rd Fighter Group, will move to Moody AFB, Ga., where they will benefit from "operational and training synergies" with nearby Army ground and Special Forces units.

Moody is near Ft. Benning, Ga., where the Army plans to combine its infantry and armor schools into a new Maneuver Training Center. "Locating Air Force A-10s near this consolidated Army training will lead to new opportunities [for] realistic close air support training," DOD officials informed the BRAC commission.

The Air Force needs Moody to be an A-10 base that can provide these CAS training opportunities, said Maj. Gen. Gary W. Heckman, who was the Air Force's chief BRAC planner until his recent retirement. In all, 48 Warthogs will be arriving at the Georgia base. Moody will also gain most of the 354th Fighter Wing's A-10s from Eielson AFB, Alaska.

Eielson is losing its tank-killing Warthogs but keeping its F-16s. DOD had proposed removing all of Eielson's aircraft and keeping it as an enclave, to host large training exercises such as Cope Thunder, but the BRAC commission decided this would not make full use of the base.

The BRAC commission also considered relocating the Navy's presence at NAS Oceana, Va., to Moody, because of the urban encroachment at the Virginia Beach air station. The Air Force would have to "empty out" its presence if the Navy's East Coast master jet base, with 244 aircraft, moved to Moody, Heckman said.

With Moody therefore unavailable, the BRAC commission looked elsewhere, and the Navy's East Coast jet base may wind up at Cecil Field in Florida—which was closed in a previous BRAC round.

commission nixed several large cost-cutting plans. This was acceptable to Air Force officials, who said preparing for the future—not savings—was USAF's top BRAC priority. The changes free up excess infrastructure and allow the Air Force to move assets into more efficient units, which Air Force leaders argue will increase Total Force combat power.

To facilitate these changes, the Air Force proposed that 10 locations undergo major realignments, defined as a net loss of more than 400 people. They were: Eielson and Elmendorf AFBs, Alaska; Maxwell AFB, Ala.; Mountain Home AFB, Idaho; Pope; Grand Forks AFB, N.D.; Portland Arpt., Ore.; Lackland and Sheppard AFBs, Tex.; and McChord AFB, Wash.

### The Air Guard Issue

Among the military services, the Air Force had the most ambitious—and controversial—transformation plan. Central to it was an extensive makeover of Air National Guard units.

Over the past 20 years, Guard bases had been left almost untouched. Of 22 major Air Force closures in previous rounds, only five have affected Guard bases and Reserve bases. This was soon

to become a major problem, said USAF officials. ANG's old fighters would begin to age out of the fleet, leaving fewer and fewer aircraft dispersed across an unchanging number of bases. This would create major inefficiencies that would only get worse in years ahead.

Correcting this situation was USAF's critical need, said Air Force officials. Maj. Gen. Gary W. Heckman, who led the Air Force's BRAC planning effort until he retired this fall, noted that the active duty force had cut squadrons to keep the remaining units at an efficient level of 24 aircraft per squadron. This, Heckman noted, was not done in the Guard, which has been operating smaller and smaller squadrons.

According to Air Force data, none of the nine ANG and AFRCA-10 squadrons is optimally sized, and only two of 33 F-16 squadrons are optimally sized, with squadrons of at least 18 fighters.

The current average unit size is 15 aircraft per squadron, and Heckman said that aircraft-per-squadron would fall to 12 by 2011. Without the BRAC plan, the average Air National Guard squadron in 2017 would have had just six or seven fighters.

Under the approved BRAC plan, Air

## Birth of a "Mega-Base"

Creating efficiency through consolidation is not just an issue for the Air Force and Air National Guard. In the Washington, D.C., area, 23,000 defense workers in commercial office complexes scattered throughout Northern Virginia are being relocated. Most of them will move to Ft. Belvoir, Va., which is adding nearly 12,000 workers, or Ft. Meade, Md., which is picking up more than 5,000 defense employees.

Even more unusual will be the merger of contiguous Army, Navy, and Air Force installations in New Jersey into a single mega-base.

McGuire Air Force Base, Ft. Dix, and Naval Air Engineering Station Lakehurst will be combined into a single DOD facility of more than 60 square miles. The Air Force will provide facilities management and the installation commander.

The inelegantly named Joint Base McGuire-Dix-Lakehurst currently employs approximately 18,000 military, DOD civilians, and contractors.

McGuire is already home to more than 60 aircraft, including C-17s and KC-10s, and the joint base will bring in additional Navy and Marine Corps aircraft from to-be-shuttered NAS JRB Willow Grove, Pa.

Dix is home to extensive artillery, small-arms, and tank ranges.

Lakehurst "develops, builds, and repairs the nation's aircraft carrier fleet's catapult and recovery systems," noted US Rep. Jim Saxton (R-N.J.) in a news release. Lakehurst was also the site of the infamous 1937 Hindenburg airship disaster.

The facilities have a history of cooperation. Air Mobility Command's Air Mobility Warfare Center is already located on Ft. Dix property

Force officials report the 42 existing Guard and Reserve A-10 and F-16 squadrons will be cut to 27. More importantly, 26 of the 27 will be optimally sized.

"If we save nothing," Heckman emphasized, this BRAC round will still be worthwhile simply for the "combat force enhancements" it enables.

The BRAC commission did not look as favorably on the Air Force's suggestions for realigning Guard mobility aircraft. Changing C-130 squadrons from eight aircraft to 12 would increase their operational availability by 15 percent, Heckman noted.

The Defense Department proposed placing 12 or more C-130s at nine Air National Guard bases. The BRAC commission chose to spread the force around and left no ANG base with that many C-130s.

This was a success for the adjutants general, who fiercely argued that removing flying missions and closing ANG bases could destroy the character and effectiveness of the Air Guard. Guard personnel do not pack up and go to the next location to simply serve in the National Guard, said Maj. Gen. Roger P. Lempke, president of the Adjutants General Association of the United States. Closings also could leave vast sections of the United States without key homeland and air defense capabilities, critics argued. Lempke called for a test program before charging down a path that could irreparably harm the Air National Guard's ability to meet its state mission.

The commission expressed concern about the fact that 37 of 42 Air Force proposals involved the Air National

Guard. "As proposed by DOD, 23 Air National Guard units would have lost all their currently assigned aircraft," and five states would have been left with no flying mission at all, the panel noted. Some members felt that this would damage recruiting and retention in the Guard.

Heckman responded that the Air Force could not afford to "spread out the force to an inefficient size just to have catchment areas."

Others blasted plans to turn some bases into enclaves.

The Air Force's original thought was to close those bases altogether, Heckman said, but USAF concluded that flying is not the only important mission performed at some locations. So-called

expeditionary combat support units have repeatedly deployed in the war on terror to open, improve, and sustain bases overseas. ECS airmen, including construction, engineers, security forces, and firefighters, are frequently the sort of personnel needed for homeland defense and disaster response missions.

Eight lawsuits were filed against the Secretary of Defense in last-ditch attempts to stop the BRAC process. None of the lawsuits name USAF or its officials as defendants, but seven of the lawsuits are challenging ANG recommendations. Officials note that as a practical matter the Air Force could be affected by any of the lawsuits that challenge recommendations affecting the Air National Guard. By late October, these legal challenges were unresolved, but, if successful, they could prevent certain BRAC actions from taking place.

Wood said that, if the Air Force does not effectively recapitalize its fleets, USAF in the future again will be saddled with inefficient squadrons. That is the reason new aircraft such as the F/A-22, F-35 Joint Strike Fighter, and C-130J are needed in "good numbers," he said.

## Community Pain

All closings are painful for the local communities, so military value was supposed to be the top priority in deciding what to close and what to keep open. While many of the proposed changes were resisted by the affected communities, some bases, such as Grand Forks AFB, N.D., welcomed the opportunity to move into emerging mission areas.

The Air Force originally recom-



Here, SSgt. Guy Dashnea emerges from a low-crawl obstacle at Lackland AFB, Tex., a base that is being significantly realigned.

USAF photo by SSGT. Janice H. Cannon



mended that Grand Forks be closed, Heckman told *Air Force Magazine*, but consultations with OSD highlighted the “unintended consequences” of that idea.

When combined with the other services’ actions, Air Force abandonment of Grand Forks would have left little “strategic presence” in the north-central United States. This is an issue that would come up again in deliberations with the BRAC commission.

Instead, the Air Force decided to push Grand Forks into an emerging mission area—unmanned aerial systems operations. The base is an ideal location for a cold-weather UAS center, explained Wood. The Air Force’s “strategic vision for Grand Forks is to become a home to a family of [UASes],” he said.

Strategic presence was also important to the BRAC commission, which decided to save several bases in the Northeast United States—notably the Portsmouth Naval Shipyard in Maine and Submarine Base New London, Conn.

DOD had proposed closing Ellsworth AFB, S.D., and shifting its B-1B force to Dyess AFB, Tex., the only other B-1B base. Military officials explained to the BRAC commission that this move would save nearly \$1.9 billion over 20 years, “which represents 12.7 percent of the savings” among all Air Force recommendations.

Principi disagreed, claiming that the savings was “illusory,” stemming from military personnel shifts. If one factored out those savings, Principi wrote in *USA Today*, the preservation of Ellsworth would actually save money while giving the Air Force more flexibility.

Ellsworth is “an outstanding installation,” said the commissioners. The



USAF photo by TSgt. Sandra Niedzwiecki

*Cannon Air Force Base’s F-16s, such as the one at top, are being redistributed. Guard issues were contentious. Above is an F-15 at Otis ANGB, Mass., which will stay open as an enclave.*

area has “vast unencroached airspace, is sparsely populated, and has diverse terrain.” Ellsworth is also the second largest employer in the state of South Dakota. The commission decided to keep it open.

### Saving Jobs

Jobs and economics were frequently cited by advocates for local bases. For example, New Mexico Gov. Bill Richardson, a Democrat, vigorously argued the case for Cannon as a valuable engine of economic growth in his state. If the Air Force’s BRAC recommendations were adopted, Richardson said, “New Mexico will face thousands of lost jobs and hundreds of millions of dollars in lost economic activity.” Cannon is now in limbo as it seeks a new mission.

The BRAC panel was receptive to the economic argument—but only up

to a point. Commissioner Harold W. Gehman Jr., a retired US Navy admiral, said the goal was to allow the Air Force to form larger squadrons for efficiency while also dispersing forces across a wide geographic area.

The Cannon question was so difficult that the commission essentially gave DOD four more years to decide. Commissioners said there is “merit” in disbanding the 27th Fighter Wing at Cannon and distributing its aircraft to create efficiencies at other bases, but the impact had to be considered. The area around Clovis (population 33,000) could lose 29 percent of its jobs if Cannon closes, and that fact inspired the commission to give the base one last chance for a new mission.

The panel’s final determination was that, absent assignment of a new mission, Cannon would close after Dec. 31, 2009.

Wood said the Air Force will give a “serious look” at Cannon in an attempt to identify a new mission that makes sense for the base. Evaluations such as this are difficult, he said, because deciding what to keep open is not a matter of pitting bad units against good units.

The Total Force is kept at a high state of effectiveness, and Guard and Reserve units are in some ways “better” than their active duty counterparts.

Some are equipped with technology that active duty units lack, and Wood observed that the Air Force is trying to make greater use of the experience that resides in the Reserve Component, through increased use of associate units. “Don’t let anyone tell you that experience doesn’t count,” he said. ■

**When Hurricanes Katrina and Rita smashed up the Gulf Coast, Air Force units mounted a massive response.**

# Storm Surge

Photography I

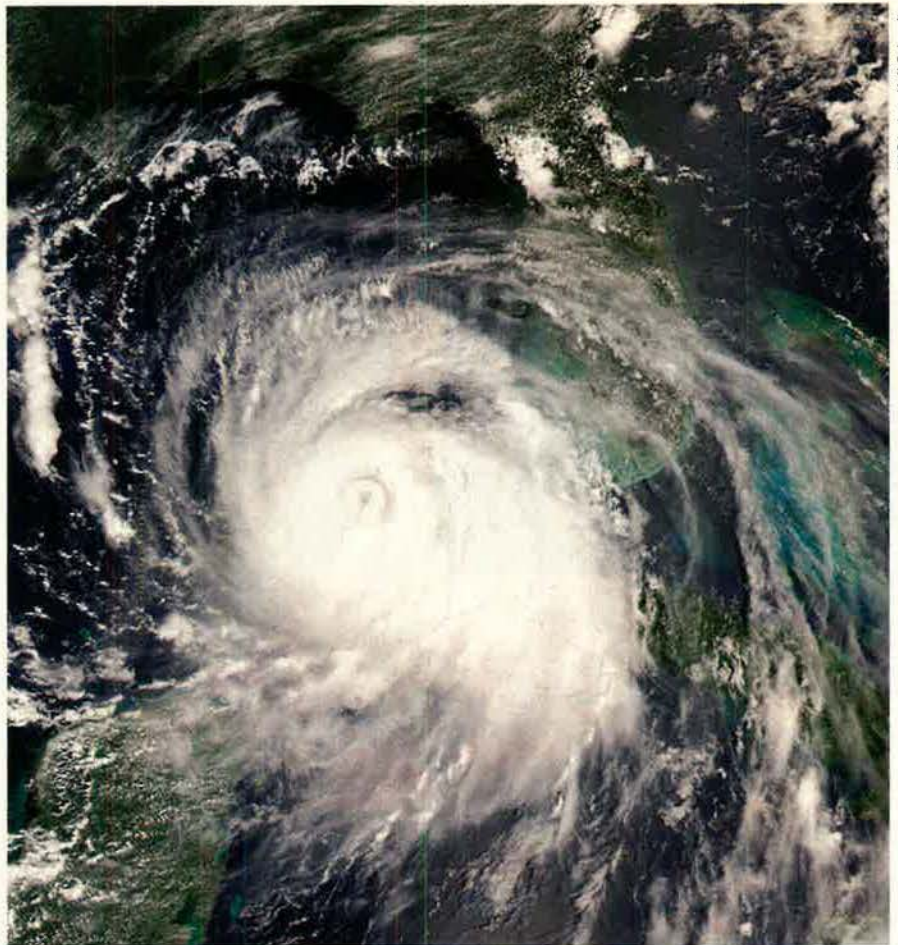




USAF combat camera photographers

*TSgt. Keith Berry, a pararescueman with Air Force Reserve Command's 304th Rescue Squadron, Portland, Ore., surveys the rooftops of flooded New Orleans houses in search of survivors from Hurricane Katrina. His and other Reservists' efforts saved more than 1,000 people. The Reserves joined thousands of active duty and Air National Guard personnel in Air Force rescue and relief efforts for Hurricanes Katrina and Rita.*

The satellite photo at right conveys a sense of the immense scope and magnitude of Hurricane Katrina, bracketed on the lower left of the photo by Mexico's Yucatan Peninsula, the lower right by Cuba, and the upper right by Florida. The warm waters of the Gulf of Mexico converted Katrina into a Category 5 hurricane, with sustained winds of 160 mph. It made landfall in Louisiana the next day, Aug. 29, as a Category 4 hurricane. Katrina demolished buildings, flattened trees, and destroyed infrastructure all along the Gulf Coast. The storm surges proved devastating to New Orleans, a city located below sea level, piercing its protective levees and inundating its low-lying neighborhoods.



NASA photo/Jeff Schmeltz

USAF photos by MSgt. Efrain Gonzalez



USAF photo by SSgt. Jacob N. Bailey



Far left, a helicopter uses a highway as a landing zone.

Near left, an AFRC C-130 sprays pesticide over New Orleans to prevent outbreaks of malaria and other diseases transmitted by mosquitoes and flies.

Perched in an HH-60G helicopter on a search and rescue mission, SrA. Arthur Zingler (right) hunts for survivors of Hurricane Rita, which struck the Texas-Louisiana coastline just weeks after Katrina hit neighboring Louisiana, Mississippi, and Alabama. Zingler, with the 38th Rescue Squadron, deployed from Air Force Special Operations Command's Moody AFB, Ga.



USAF photo by TSgt. Rob Jensen

USAF photo



*Keesler AFB, Miss., was hardest hit of USAF's bases along the Gulf Coast. Katrina's storm surge caused extensive property damage but, amazingly, no casualties among the 6,000 personnel who hunkered down on base to weather the storm. Within about a month, selected training courses had resumed.*

*Katrina knocked down trees and lamp-posts in addition to damaging Keesler base facilities (see photo below). Recovery efforts are well under way, with more and more classes resuming as facilities and roads are repaired.*

USAF photo by TSgt. Dave Nene



*USAF deployed active duty, Guard, and Reserve units to cope with the aftermath of the two hurricanes. Above, Air National Guardsmen from Arizona's 162nd Fighter Wing, Davis-Monthan AFB, Ariz., prepare to load a P-19 fire truck onto a C-130 bound for Mississippi.*



USAF photo

USAF photo



*Despite hurricane devastation, Keesler soon became a staging area for the transport of humanitarian supplies to other stricken areas. At left, airmen with the newly formed 97th Air Expeditionary Group sort and organize medical supplies critical to the work of emergency medical teams throughout the Gulf Coast.*



Above, the cavernous bay of a C-5 airlifter awaits a Humvee, which will join an aircraft maintenance crane already inside. Both were headed for Gulfport, Miss. Managing the loading operations are ANG airmen with the 109th Aerial Port Squadron, Albany Arpt., N.Y. The Galaxy is assigned to the 105th Airlift Wing, a New York ANG unit.

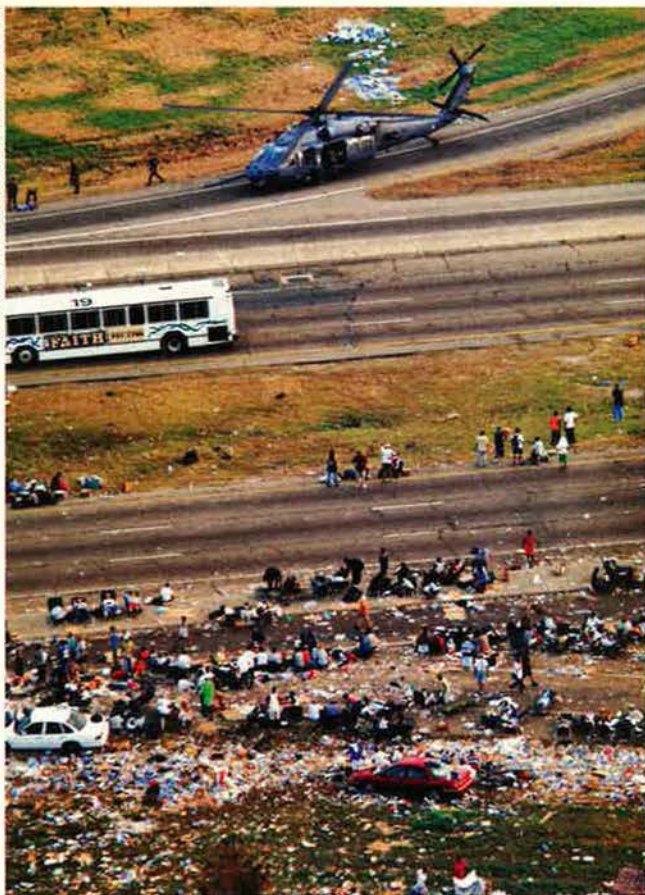
Hurricane Rita ripped off rooftops (left) and scattered debris along the Texas-Louisiana border, an area surveyed by search and rescue members of the 349th Air Expeditionary Group.

A1C Brandon Johnson (below) with the 822nd Security Forces Squadron, Moody Air Force Base, looks out at his flooded hometown of New Orleans.



SSgt. Al Martinez (above), assigned to the ANG's 147th Civil Engineer Flight, Ellington Field, Tex., pauses before resuming power restoration efforts at the Southeast Texas Regional Arpt., Nederland, Tex. Martinez and another civil engineer Guardsman enabled the airport to resume operations.





Above left, Air National Guard members land an HH-60G Pave Hawk helicopter at a collection spot for New Orleans evacuees. USAF dispatched helicopters and C-5, C-17, C-130, and C-141 airlifters in support of relief operations.

Above right, pararescue teams plucked thousands of people from rooftops, bridges, and other locations when they became stranded by Katrina's rising waters.

At right, Air Force students of the 332nd and 335th Training Squadrons at Keesler pack a C-17 as they await evacuation to Sheppard AFB, Tex.



Twenty-six nations sent humanitarian assistance. At far left, an Egyptian C-130 delivers its supplies in Little Rock AFB, Ark. Little Rock was designated the receiving hub for all international relief flights.

This HC-130P (left) was one of many tankers that USAF provided for refueling missions. The inflight refueling capability of the Pave Hawk helicopters enabled its crews to conduct extended search and rescue missions.



Having safely moved hospital patients from Beaumont, Tex., to Dallas, on Sept. 23, a C-5 Galaxy (top) from Travis AFB, Calif., was turned for another mission. It was one of five C-5s USAF committed to Hurricane Rita relief efforts.

At left, TSgt. Paul Schultz yells down an airshaft on a rooftop, checking for anyone trapped in a flooded house. He is with AFRC's 306th Rescue Squadron, Davis-Monthan.

Below, airmen and other volunteers line up to offer assistance to Hurricane Katrina evacuees from New Orleans as they disembark from a Boeing 737 at Lackland AFB, Tex. The evacuees were given medical exams, fed, and placed in temporary shelters.



Above, an unmanned aerial system mounted atop a pole on a New Orleans hotel roof uses a remote operations video enhanced receiver to help find survivors. Air Combat Command deployed 10 RCVER units to the Gulf Coast to assist with recovery operations and to search for survivors.





Above, airmen with ANG's 147th Fighter Wing, Ellington Field, Tex., fill sandbags to forestall water damage to base buildings from approaching Hurricane Rita. Ellington is located 10 miles southeast of Houston.

Top right, Air Force and Army helicopters line up to depart on the next relief mission.

At right, these before and after Space Imaging photos offer evidence of the destructive force of Katrina. The dark segments of the far right photo are flooded streets near the Superdome.

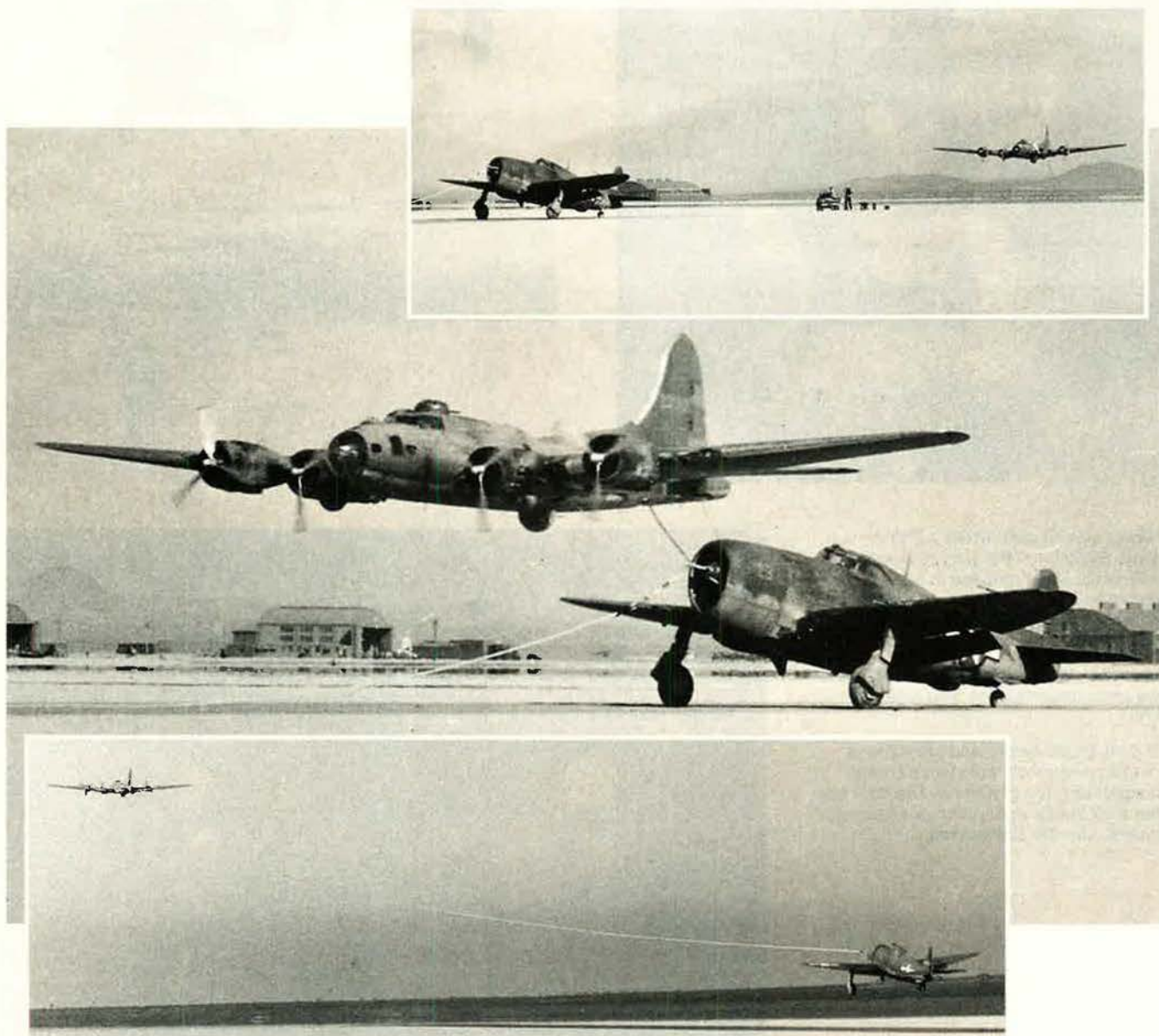


Far left, a ground crew member directs an arriving China Southern Cargo airplane to its assigned parking space. China was one of dozens of countries to deliver hurricane relief supplies.



Hundreds of Air Force active duty, Guardsmen, and Reservists joined in a Total Force effort to assist those stricken by the two huge hurricanes. ■

## The Airplane Snatchers



US Army Air Forces of World War II hated to lose a serviceable fighter aircraft just because mechanical problems might force it to land in an inaccessible spot. To solve the problem, USAAF's Equipment Laboratory at Wright Field, Ohio, experimented with airplane snatching, seen in this photo sequence in which (top to bottom) a B-17 bomber scoops up a P-47 fighter. First, a tow bridle was attached to the fighter. Then, two upright poles were planted, with the bridle's pick-up loop strung across

them. Next, the rescuing airplane swooped low, dragging an arm tipped with a hook that would snag the loop and yank the 17,000-pound fighter into the air after a takeoff roll of just 500 feet. At home base, the towed aircraft's pilot released from the bomber and made a dead-stick landing. The practice never really caught on.





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# The Strength of

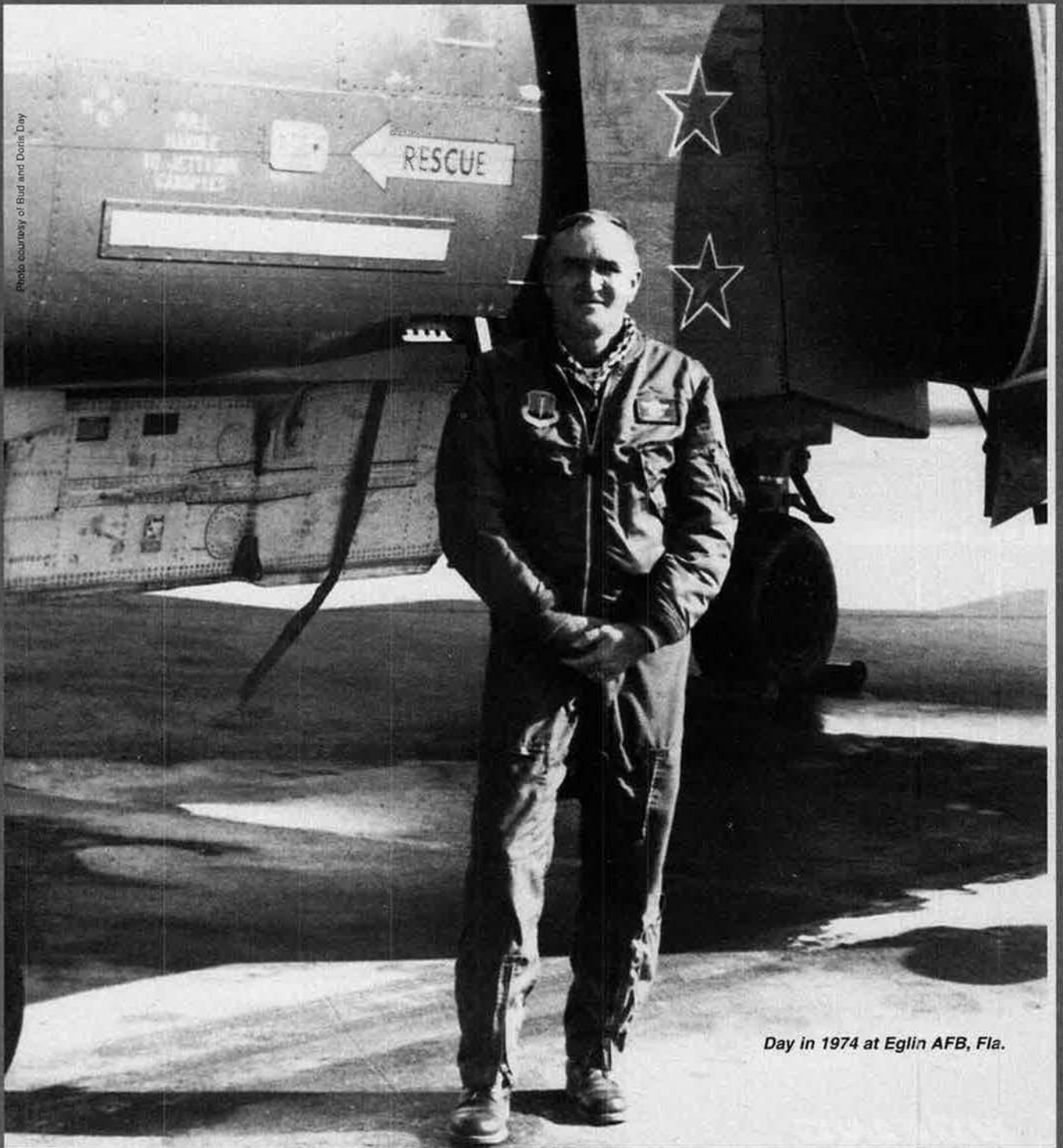


Photo courtesy of Bud and Doris Day

*Day in 1974 at Eglin AFB, Fla.*

**Despite his injuries, he escaped from North Vietnam, evaded capture for 12 days, and almost made it back to a US base.**

# Bud Day

By John T. Correll

**E**arly afternoon, Aug. 26, 1967, Phu Cat AB, South Vietnam. The two pilots who would be flying that day as Misty 31 were already buckling into their F-100F when the courier airplane landed.

A flight-line vehicle met the courier, then drove straight to Misty 31. An airman got out and handed a recently developed reconnaissance photo to the senior pilot, Maj. George E. "Bud" Day.

Bud Day was commander of the Misty FACs, who flew forward air control missions in risky parts of North Vietnam. Their job was to find and mark the targets for strike aircraft. The Mistys had been in existence for less than three months. Day was the first commander.

The photo showed an SA-2 missile site with a radar van and three surface-to-air missiles. It was in a fruit orchard west of Fingers Lake, a familiar landmark near the Demilitarized Zone.

Seventh Air Force wanted Misty to take a close look at the site and direct an air strike against it as soon as possible. The SAMs were a serious threat not only to fighters operating in that area but also to B-52s, which were bombing along the DMZ. A photo interpreter gave Day all of the details intelligence had.

Day was the backseat pilot for Misty 31. The frontseater was Capt. Corwin Kippenham, a former O-1 FAC on his checkout mission as a Misty. It was Day's 65th sortie into North Vietnam. It was also going to be his last. When Day took off from Phu Cat on Aug.

26, he would be gone for more than five years.

## Third War

Vietnam was the third war for Bud Day. In 1942, he dropped out of high school in Sioux City, Iowa, joined the Marine Corps, and served in the Pacific until the end of World War II. He came back, finished high school, graduated from college, attended the University of South Dakota Law School, and was admitted to the South Dakota bar in 1949. He married his childhood sweetheart, Doris Sorensen, who he called the "Viking" because of her Norwegian looks.

Then, as always, the military had a strong appeal for him. He was in the Army Reserve after the war, then transferred to the Air National Guard and received a direct appointment as a second lieutenant. He was called to active duty with the Air Force in 1951 and went to pilot training. During the Korean War, he served two tours in the Far East as an F-84 pilot.

Day remained in the Air Force, and, in the years that followed, he spent lots of time in the cockpit. He logged more than 5,000 flying hours, 4,500 of them in fighters. That included two tours in the supersonic F-100.

Counting his time as a marine in World War II, Day would have had 20 years of service in 1968 and planned to retire then. First, though, he volunteered for a year in Vietnam.

In April 1967, Day was assigned to Tuy Hoa Air Base in South Vietnam, flying F-100s, but he didn't stay there long. Small, propeller-driven O-1s had been flying as forward air control

aircraft in the area just north of the DMZ, but surface-to-air missiles were making it too hazardous for them to continue. The Air Force decided to try jet aircraft as "Fast FACs."

The F-4 Phantom was considered for the job, but the F-100F was chosen instead. This two-seat version of the F-100 fighter was picked, Day said, "mainly because it was cheaper, had longer legs, and a better view of the ground."

The Fast FACs were organized as Det. 1 of the 416th Tactical Fighter Squadron at Phu Cat. On June 25, 1967, Bud Day, with his long experience in F-100s, was sent to command the new unit, which started with 16 pilots and four airplanes. Day loved the call sign Misty because that was the name of his favorite song. The Fast FACs soon became known as Mistys as well.

The mission was described as "difficult and dangerous," which naturally attracted a host of fighter pilot volunteers. Typically, the Mistys flew "three-cycle" missions over North Vietnam, refueling in the air twice, which allowed them to go into the battle area three times.

## Misty Down

From Phu Cat, it took Bud Day and "Kip" Kippenham about 30 minutes to reach North Vietnam. The SAM site was easier to see in a reconnaissance photo than it would be from a moving airplane.

They knew approximately where it was, though, and came in from the east on a high-speed, low-level pass. They drew small-arms fire, but they did not see the target. With the North Vietnamese gunners alerted and primed, Misty 31

did not make another pass immediately. Instead, Day and Kippenham worked a strike west of Dong Hoi, refueled from a tanker over Thailand, and then returned to Fingers Lake, approaching from the south.

This time, Kippenham saw the SAM site, but it saw them, too. As they were rolling out, the aft section of the aircraft was hit hard by a round from a 37 mm gun. Misty 31 lost hydraulics, and the stick locked. Day took control of the aircraft, but he was unable to get the nose up. Both Kippenham and Day punched out.

Day landed in some trees. His right arm was broken in three places, and he had injuries to his knee and to one of his eyes. He tried to report his situation on his survival radio, but was unable to get through.

Other aircraft had seen his parachute, though, and a Jolly Green Giant rescue helicopter had picked up a signal from his chute beeper.

Before it got there, a boy stepped out of the trees. He had an old rifle, which he pointed at Day. He snatched Day's watch off his wrist and yelled for his friends, who came running and took Day's boots and knife.

The Jolly Green pulled close enough for Day to see a man standing in the open door, holding a rifle. He did not know that it was Kippenham, who had been picked up. Had the helicopter turned right, the crew would have seen Day and his young captors, and,



**Day was a veteran of World War II (as a marine) and Korea, where he flew F-84s. When he took command of the Misty unit, he had nearly 20 years of service and was about ready to retire. Here, Day poses beside a T-33 jet trainer.**

almost certainly, the boys would have run. However, it turned left, and Day was a prisoner.

He was in the hands of the local militia, not the North Vietnamese Army. He was beaten and kicked by villagers, and his guards beat him with rifle butts as they marched him from town to town for several days. At one camp, a "medic" misset his broken arm and put a cast on it.

On Aug. 30, he was tortured for the first time, hung upside down by his feet for most of a day. As he swung there, the broken bones in his arm ground against each other. Eventually, the rope stretched enough for his head, and then his shoulders, to touch the ground.

### Escape

On Sept. 2, Day was being held in a village about 18 miles above the DMZ and he was thinking about escape. He figured that if he could get away, he could ford the Ben Hai River, which runs between North and South Vietnam, and make it back to friendly territory.

The guards were inattentive. They did not believe Day could get very far in his condition, especially without his boots. To further lull them, he pretended his injuries were worse than they actually were.

He untied himself, stole a canteen full of water, and headed south. His bare feet were soon shredded by rocks and undergrowth, and he fell several times, aggravating his broken arm. On the third day, he was sleeping when a bomb exploded nearby, rupturing his eardrum and driving shrapnel into his leg.

He had almost nothing to eat except for some purplish berries and unfamiliar citrus-type fruit. On two occasions, he caught frogs, which he ate raw. "The palm trees were full of rain water that

Photos courtesy of Bud and Doris Day



**Day had a law degree and more than 5,000 hours of flying time; some 4,500 of them in fighters. His time with the Misty FACs was his second tour in F-100s. Above, Day and an F-104 Starfighter, one of many types he flew.**

## The Misty FACs

The Misty FACs were one of the legendary units of the Vietnam War. In all, there were only 155 of them. Reflecting the danger of their mission, 34 Mistys were shot down in combat, and two of them were shot down twice. Two of them—Merrill A. McPeak, Misty 94, and Ronald R. Fogleman, Misty 86—went on to become Chiefs of Staff of the US Air Force. McPeak was the last commander of the Mistys at Phu Cat, before operations were moved to Tuy Hoa in April 1969. The Misty program was terminated in May 1970. Alumni also include Richard G. Rutan, Misty 40, who later made the first nonstop, unrefueled flight around the world, and Donald W. Shepperd, Misty 34, who became director of the Air National Guard.

Misty 1, of course, is Bud Day.

I ran into the canteen,” he said. “I drank a lot of it.”

Several times, he saw Vietnamese soldiers and civilians close by, but they did not see him. On the eighth night, he reached the Ben Hai and floated across with the aid of some bamboo logs. He covered himself with branches. A sentry was momentarily curious but apparently decided it was only driftwood in the river.

On what Day believes to have been the 10th day after his escape, he was trying to attract the attention of an O-1 aircraft overhead. He got the attention of a Viet Cong patrol instead. Day ran, and the VC shot him in the left thigh and left hand.

He had been two miles from the US Marine Corps camp at Con Thien when he was recaptured.

### Bloody Shoe March

With his new injuries, Day was in no condition to walk. Viet Cong porters, working in shifts, carried him north in a sling between two bamboo poles. His captors were waiting on the other side of the river, and this time, it was North Vietnamese Army regulars with good uniforms and AK-47 rifles.

At the camp where he had escaped, the guards took turns beating and kicking him before forcing him to walk to Vinh. He got his boots back, minus the laces. The boots were strapped at the ankles with wire, and as he walked along, they collected pebbles and debris, which chewed up his ankles. Day calls it “the bloody shoe march.”

At Vinh, Day got his first “professional” interrogation and torture from the “Rodent,” a rat-faced official who many POWs encountered on their way north. The Rodent wanted military information, which Day refused to give him.

The “V”—as Day and the other POWs called the North Vietnamese—looped a rope under his armpits and tied it to a rafter. They stood Day on a chair, then pulled it out from under him. The rope

stopped his fall with a savage jolt as he took the full impact in his armpits.

He swung there for about two hours. “The rope cut a scar that remains clearly visible even today,” Day said. Then one of the guards twisted Day’s right arm in the cast. His wrist broke with a snap. The Rodent threatened to have Day’s left arm broken as well. His left hand, where he had been shot during recapture, was already unusable, with the fingers curled back into a claw.

Day made up a lot of false information and gave it to the V, and the torture stopped for a while. Neither then or later did he disclose the Misty mission or operations. Nor did he tell the V he was a lawyer, which would have added a special dimension to any compromising statements he made—if they had been able to induce him to make any.

The V took Day to Hanoi by truck, getting there in about three days. They stopped occasionally along the way

to allow villagers to see him and beat him.

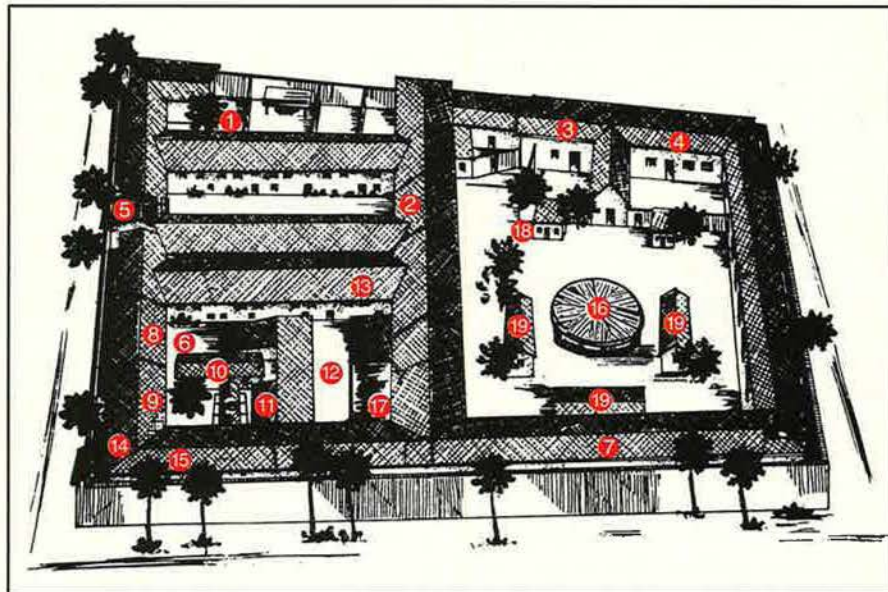
### Hanoi Hilton

It was early morning when the truck carrying Bud Day pulled up at Hoa Lo prison in the middle of Hanoi. It was a forbidding structure, built by the French at the turn of the century. The stone walls were 14 feet tall, with broken glass along the top. In Vietnamese, the name meant “Fiery Furnace,” but the POWs called it the “Hanoi Hilton.” None of them ever escaped from there.

The Hilton had only one entrance, and, just inside, on the left, was “New Guy Village,” the torture center for new arrivals. The mission was to intimidate them right away.

With the exception of those who cooperated with the V, most of the POWs were tortured. There were basically three kinds of torture—kneeling, ropes, and beating—each of which had numerous variations.

Kneeling on bare concrete was painful, especially when prisoners were kept on their knees for hours, but that was just the beginning. The V torturers used ropes in several ways. The prisoner might be suspended from an overhead beam, as happened to Day in Vinh. Ropes might also be used to pull a prisoner’s shoulder blades as close together as possible behind his back. This worked especially well with the guard’s boot in the prisoner’s back. Beatings were done with fists.



*Hoa Lo prison—the infamous “Hanoi Hilton”—was one of a number of sites where Day was imprisoned and tortured. (1) New Guy Village; (2) Heartbreak Hotel; (3) Mayo; (4) cell block; (5) Main Gate; (6) Little Vegas Area; (7) Camp Unity Area; (8) Stardust; (9) Desert Inn; (10) Riviera; (11) Golden Nugget; (12) Stock Yard; (13) Kitchen; (14) Mint; (15) Thunderbird; (16) bath area; (17) Coal Yard; (18) Medic Shack; (19) Quiz Room.*

## The Broken Promise

In 1995, Bud Day went for medical care to Eglin AFB, Fla., where he had received treatment before, but this time, he was turned away. He was over 65, and the new rules said he should rely on Medicare instead.

He was outraged. The government had promised military retirees medical care for life, and now they had been shifted to another system, requiring fees to be paid. It did not provide full coverage and obliged veterans to buy a health care supplement to avoid large out-of-pocket expenses.

Day filed suit on behalf of a group of military veterans in 1996. The government admitted that lifetime medical care had been promised, but that the promise had been made without legal authority. Besides, the government argued, limits had been set in 1956 on its obligation. For retirees who entered service after that, health care was made conditional on availability of staff and space in military hospitals.

Day and his colleagues, who eventually incorporated as Class Act Group, pursued the case for the older retirees. Retirees joined the cause in large numbers. In 2001, a federal court agreed that the government had indeed broken its promise, but that ruling was overturned in 2002 by the US Court of Appeals. In June 2003, the US Supreme Court declined further consideration of the case.

With the prospects for a class action lawsuit cut off by the Supreme Court's decision, Day and the Class Act Group have redirected their efforts toward legislative solutions. Their program now includes retirees who entered service after 1956, considering that military literature, as late as the 1990s, continued to promise lifetime medical care.

A new health care system, Tricare for Life, has resolved many of the problems that retirees had with Medicare alone. The program enacted by Congress responded to proposals by Class Act, and the pressure of Bud Day's challenge was influential in shaping the outcome. It covers all retirees, not just the older ones. Day says that Tricare for Life "is truly a much better program than we had before," but Class Act wants Congress to waive the cost of Medicare Part B payments for retirees and their spouses.

"Injuries were a bonus for the torturers," Day said. Twisting or pulling on a broken bone caused excruciating pain, which the V found useful. The chief torturer at New Guy Village was the "Bug," who was known to have killed at least five Americans. He had two assistants, "Straps and Bars" and "Jake." As the torturers worked, a typewriter clicked away routinely across the hall, the clerk oblivious to the screaming.

Tortured for the names of other pilots in his unit, Day finally gave the V the names of Doc Savage, Charles Lindbergh, and Billy Mitchell.

Before long, Day was moved into another section of the prison, which the POWs called "Little Vegas." Among the features there were audio speakers, over which the V played and replayed statements from American liberals and antiwar US Senators. They also piped in confessions and propaganda statements from prisoners who collaborated with them.

When the cast was cut off Day's right arm, his hand flopped around uselessly. He could not help himself with his left hand, either. His weight had fallen to about 100 pounds. Another prisoner, Air Force Maj. Norris M. Overly, was assigned to take care of him.

Day and Overly were moved to another POW camp, the "Plantation," a few miles away. The reason, apparently, was so Overly could also care for another

incapacitated POW: Navy Lt. Cmdr. John S. McCain III, shot down and captured on Oct. 26, 1967. (McCain's father, Adm. John S. McCain Jr., became the head of US Pacific Command nine months later.)

The V hoped to cultivate or exploit McCain. As POW camps went, the Plantation was a showplace, the residence of a former French mayor of Hanoi. Con-

ditions were better and treatment was not as harsh. High-ranking Vietnamese came to see McCain and talk to him, but he wasn't cutting any deals.

Nearly all of the POWs tried to hold to the Code of Conduct for US armed forces, which said they should give their name, rank, service number, and date of birth, and nothing else. Some POWs—Bud Day and John McCain among them—were known as "hard resisters," who took severe torture before telling the V anything. A few of the POWs made no effort to resist and thus obtained special privileges.

In February 1968, Overly was released to go home early, and Day and McCain looked after each other. Day's arm had come out of the cast misshapen and ulcerated. His hand was out of alignment with his arm. The bones were not joined. The V were not interested.

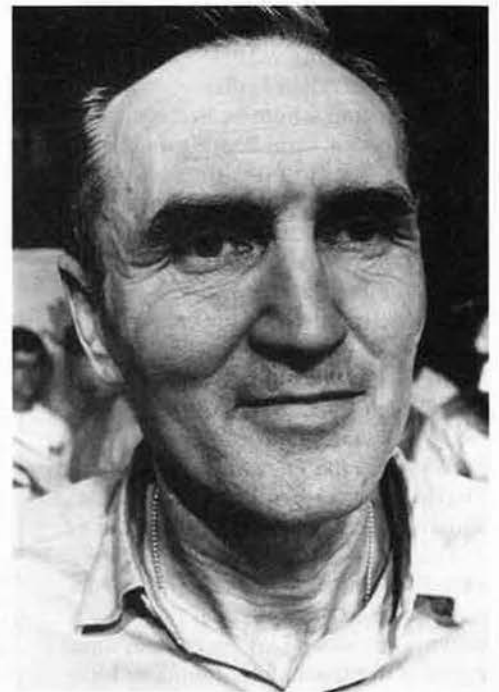
McCain wrapped Day's arm in bamboo and rags and squeezed the bones together. About a month later, the bones joined. Years afterward, doctors in the United States expressed the opinion that McCain ought to get a degree in practical orthopedic surgery.

At the Plantation, Day and McCain learned the tap code the POWs used for communicating with each other. Tapping was an offense punishable by torture if a POW was caught at it.

### Punishment Camp

On April 28, 1968, Day was transferred to the "Zoo" in the southwestern

*At right, Day on his release, March 14, 1973. The information he gave up under torture was pure fantasy; he "confessed" that Charles Lindbergh was a fellow Misty. Day says this photo illustrates how torture aged him "20 years in five years."*







*Day is reunited with his wife, Doris, in 1973. He did not appear on the initial, "complete" lists of POWs that North Vietnam provided to the US. Doris had to work hard to get his status acknowledged and bring him home.*

suburbs of Hanoi. It was a "punishment camp" for hard resisters. POWs were tortured for information, to induce "confessions," as punishment for infractions, or just because the V felt like torturing them.

Day sustained a notable beating, lasting several hours, on June 11. Two guards, known as "Dum-Dum" and "Neat," beat him until their hands were sore, then called in a third guard to take over. After that, Day had new and continuous problems with his vision.

Like his fellow POWs, Day had special contempt for American liberals who visited North Vietnam and spoke well of the V and for those back in the United States who denied that the POWs were being tortured. Day later learned that CBS News had reported on nine occasions that the Hanoi regime was treating the POWs well.

In 1969, Day said later, "I was beaten with a car fan belt three times a day for three months straight." It began with two guards, working in relays, working him over with a 30-inch length of fan belt. That afternoon, a second team took over. The V struck Day in the face, breaking one tooth and chipping another.

He finally gave them a "confession," full of obviously false details. He told them about a "Transportation Committee" that was lining up trucks for transport out of Hanoi. He said there was also a "Pass and Identification Committee" making credentials for the POWs to use. Maybe the V believed it, maybe they didn't.

In a subsequent round of torture, the

V used a stick instead of a fan belt. The wounds from the previous torture, crusted over with scabs, broke open and bled under the new beatings.

After Ho Chi Minh died on Sept. 2, 1969, treatment of the POWs improved dramatically. The beatings were fewer and less severe. Day believes that the relentless torture up to then had been the result of Ho's "personal policies."

In June 1970, Day was blindfolded and taken back to the Hanoi Hilton, where conditions were much better. In November, the US attempt to rescue POWs at Son Tay spooked the V, who moved all of the prisoners to Hanoi. (See

"The Son Tay Raid," November 1995, p. 64.) The Hilton was overcrowded, but, for the POWs, the pleasure of seeing so many other Americans more than made up for the discomfort.

For awhile, about 45 POWs were housed in "Room Seven," a large room, 25 feet by 70, off the back courtyard of the Hilton in the area known as Camp Unity or "No OK Corral."

The prisoners decided to organize a church service. It had just gotten under way when the Bug and his thugs barged in and ordered that it be stopped. The program went on, and, that evening, the thugs returned to pull Air Force Lt. Col. Robinson Risner and several other POWs out of the room.

Bud Day began singing "The Star-Spangled Banner." The entire camp, less the collaborators, joined in. For the next two hours, the POWs sang patriotic songs to protest the removal of their colleagues. The V did not interfere further.

There is no telling what fate the V had in mind for the troublesome Bud Day. His name was not on the supposedly "complete" roster given to US representatives at the Paris peace talks in December 1970. However, Norris Overly had brought back a note to Day's wife—the Viking—when Overly was repatriated in 1968. She and the US government complained loudly about the absence of Day's name from the roster.

### Days, Months, Years

Before long, conditions tightened up again. A POW who had not experienced the hard repression of the earlier years



*Fellow POW (now US Senator) John McCain (left) and Day visit South Vietnamese President Nguyen Van Thieu in 1974. McCain, who took care of Day in Hanoi, called him "one of the greatest men I have ever had the honor to know."*



**President Gerald Ford presents the Medal of Honor to Day in a 1976 White House ceremony. Day believes the Linebacker II bombing campaign, ordered by Richard Nixon, led to his release. At Day's request, Nixon re-presented the medal in 1977.**

shouted an obscene insult to Ho Chi Minh. It was a pointless confrontation but enough to set off a new wave of repression.

One result was that some of the hard resisters—a category that always seemed to include Bud Day—went to punishment camps, even though they had no part in the shouted insults.

In March 1971, Day was sent to a camp called “Skid Row,” five miles southwest of Hanoi. The cells there were small, but he got one to himself. He was kept in solitary 99 percent of the time at Skid Row. It was not a new experience. During Day's total of 67 months in captivity, 38 months were in solitary.

There was also torture, but it was less severe than before.

Later in 1971, Day was moved to the “Heartbreak Hotel” section of the Hanoi Hilton, where the rooms were considerably smaller than in Little Vegas. Five POWs were kept in a tiny room, 36 feet square. They slept two on the concrete slab “beds,” two under the slabs, and one on the floor in between.

It was not a matter of more space not being available. Several large rooms nearby were empty. The V just wanted to do it that way.

After several weeks, Day was returned to Skid Row. The punishment camp seemed a relief after Heartbreak Hotel. Then it was back to the Hilton again, the No OK Corral section this time.

Among the diversions the POWs created for themselves were Wednesday and Saturday Night at the Movies.

Anybody who could remember a movie told it to the others in as much detail as they could. John McCain was one of the star tellers.

The big break came with the Linebacker II attack on Dec. 18, 1972. The POWs were elated as the bombs fell on Hanoi. High-ranking V suddenly started visiting the Hilton. It had become the safest place in the city.

### Return With Honor

On Jan. 27, 1973, the V announced the Paris protocols to the prisoners, and the POWs knew they were going home. They were released in increments, beginning Feb. 12. Day's “Freedom Day” was March 14.

Air Force C-141s picked up the POWs at Gia Lam airfield in Hanoi and flew them to Clark Air Base in the Philippines for debriefing and medical evaluation. Day had two infected teeth pulled and he was fitted for eyeglasses. He also talked with the Viking on the telephone. His reunion with her and their four children came a few days later at March AFB, Calif.

Day had been promoted twice while he was in captivity. He was now a colonel. He spent a year in medical rehabilitation and had to obtain 13 waivers to get back on flying status. He went to upgrade training in the F-4 and was assigned as vice commander

of the 33rd Tactical Fighter Wing at Eglin AFB, Fla.

One of his big disappointments was that there was to be no punishment for the collaborators who had cooperated with the V and denounced their country and their fellow prisoners. The government decided it was better to let them go quietly.

In 1974, Day, McCain, and others returned to Vietnam to be honored and decorated by the South Vietnamese government.

Day was awarded the Medal of Honor, presented by President Ford on March 6, 1976. At Day's request, it was re-presented in 1977 by former President Nixon, who had ordered the Linebacker II strikes in 1972 that Day believed had led to his release.

Day was—and is—the Air Force's most highly decorated officer. He holds almost 70 military decorations, of which more than 50 are for combat. In addition to the Medal of Honor, they include the Air Force Cross, the Distinguished Service Medal, and the Silver Star. He wears 12 campaign battle stars.

He retired from the Air Force in 1976 and was admitted to the Florida bar in 1977. He has been practicing law in Fort Walton Beach ever since.

More honors keep coming his way. In 1997, the new Survival School building at Fairchild AFB, Wash., was named for Day, whose escape in Vietnam was the longest survival by any graduate of the school. The Col. George E. Day Parkway opened in 2001 in Sikeston, Mo. In 2002, his hometown Sioux City airport was named Col. Bud Day Field.

Bud Day told his own story in gripping detail in *Return With Honor* (Champlin Museum Press, 1989), which has long been out of print. Most of it is repeated, with additional information and more photos, in Day's *Duty, Honor, Country*, published by American Hero Press in 2002.

“I don't know how many American prisoners of war were heroes,” said Day's friend and fellow POW John McCain, now a US Senator, “but I know that Bud Day was one. In my life, I have never known anyone who better exemplifies the cardinal American virtues: compassion, guts, determination, resourcefulness, and intelligence. Bud Day is one of the greatest men I have ever had the honor to know.” ■

*John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributing editor. His most recent article, “The Ho Chi Minh Trail,” appeared in the November issue.*

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For information on the Air Force Association, see [www.afa.org](http://www.afa.org)

According to a new Congressional Budget Office report, military space investment might have to double over five years.

# *Curtain up on* **Space Modernization**

**W**hen they talk about USAF's space capabilities, Air Force officials often emphasize how important these systems are to the US military as a whole. It now seems that space modernization budgets may come close to matching that rhetoric.

According to a new Congressional Budget Office report, Pentagon space programs will have to receive major budget increases over a long period. The Air Force—DOD's executive agent for space—is responsible for the development and procurement of most of the truly significant military space systems.

The 2005 budget for space systems development and procurement totaled \$4.9 billion. (All numbers refer to "white"—or openly acknowledged—programs. Not included are figures pertaining to "black"—or classified—programs.) To finance the plans laid out in the current budget, says CBO, that figure next year will increase by 40 percent, reaching \$6.9 billion.

After that, planned spending will continue to rise year by year, though not as sharply. It tops out in 2010 at almost \$10 billion, according to the CBO's analysis of Future Years Defense Program figures. Thus, space spending

would double in just five years. CBO projects that space investment will then slowly drift downward until 2020, when it begins to rise again.

Like all budget projections, these figures are estimates that could be pushed one way or another by annual program decisions. They could also change dramatically—either up or down—as a result of the Pentagon's 2005 Quadrennial Defense Review, which is nearing its end.

Cost growth, changes in development timelines, and satellites that last longer than expected might also make the estimates off base.

#### **Historical Patterns**

The budget office points out that, historically, space system research, development, test, and evaluation (RDT&E) costs have grown by an average of 69 percent from original estimates. Space procurement costs have risen by an average of 19 percent, compared

to first estimates. Further complicating projections, many current systems outlive their design lifetimes, meaning that some projected costs are avoided because spacecraft and satellites just keep going.

The CBO report says costs could go even higher than currently projected. If future costs grow at the historical rate, it says, "investment needs would peak at \$14.4 billion—rather than \$10 billion—in 2010."

Of the assorted modernization programs, the Pentagon considers two to be "transformational," leading to great leaps forward in capability. They are:

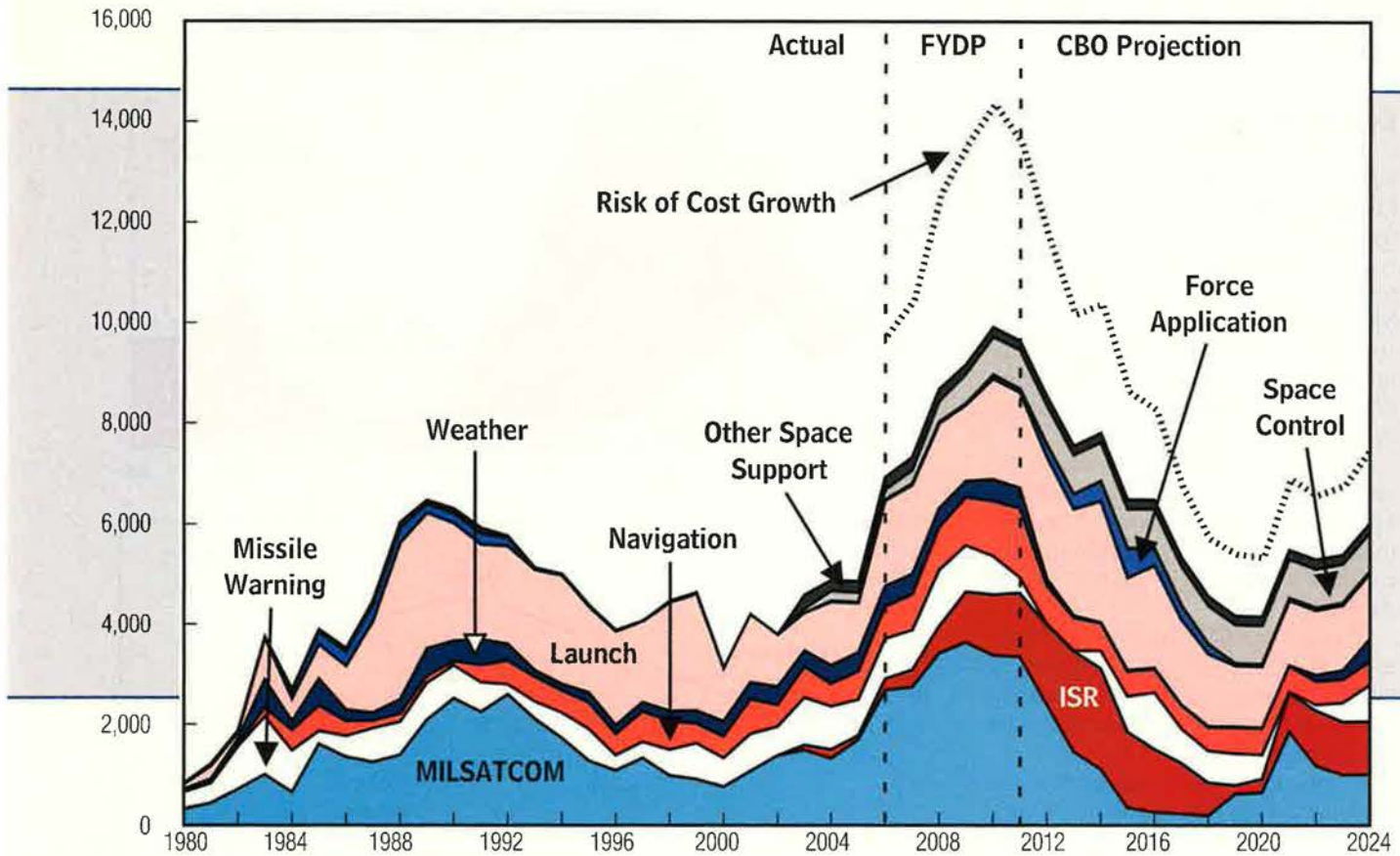
- Transformational Satellite Communications System (TSAT), needed to provide high-capacity, global connectivity for military users.

- Space Radar, a nine-satellite con-

By Peter Grier

## Investment in Major Space Programs

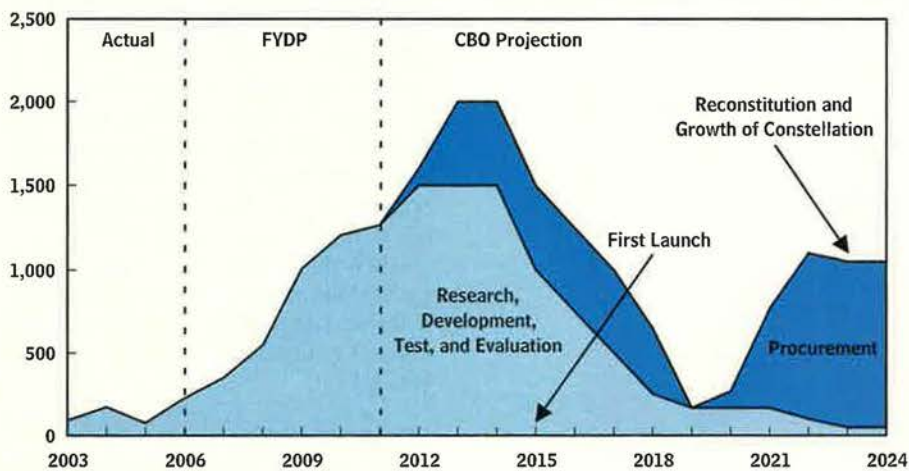
(Millions of 2006 Dollars)



This CBO graphic shows that military space will require heavy spending over the next two decades. The chart is divided into three slices—actual past spending, planned spending during the Future Years Defense Program, and spending projected by CBO during the period 2011-24. The various colored layers pertain to types of space missions. The broken line represents the level of spending that might be necessary to complete the effort. This worst-case estimate peaks in 2010 at about \$14.4 billion.

## Space Radar Satellites

(Millions of 2006 Dollars)



A major initiative will be the Space Radar, projected to be a nine-satellite constellation that would detect and track moving objects anywhere on the Earth's surface in any type of weather. USAF expects to begin launches in 2015 and invest an estimated \$19 billion through 2024 on the space-based segments of the program.

stellation able to detect and track moving terrestrial objects in all weather conditions.

Other big-ticket items include the Space Based Infrared System in high Earth orbit (SBIRS High), an early warning system to replace current Defense Support Program satellites, and the next generation of Global Positioning System navigation and timing satellites.

### Space Radar

Space-based intelligence-surveillance-reconnaissance (ISR) programs are significant. Among the most critical is the Space Radar program, whose satellites are to be launched beginning in 2015. CBO projects a \$19 billion price tag for the space segment of the program (once known as Space-Based Radar).

That projection is based on a rough cost for Space Radar satellites of \$500

million apiece. Total life cycle costs for the project, including ground-based segments and 12 years of operation, might run \$34 billion, according to a Department of Defense estimate cited by CBO.

### Communication

Military satellite communication is the largest category in the space budget. DOD's rapidly growing requirement for bandwidth is a major reason. Another is the need to replace today's aging constellations. Current MILSATCOM is creaky, so much so—reports CBO—that military communications bandwidth will shrink after 2020 even if TSAT comes along as planned.

"If existing constellations do not last as long as envisioned or new constellations experience delays in deployment, the decline in the availability of bandwidth may begin sooner," warns the study.

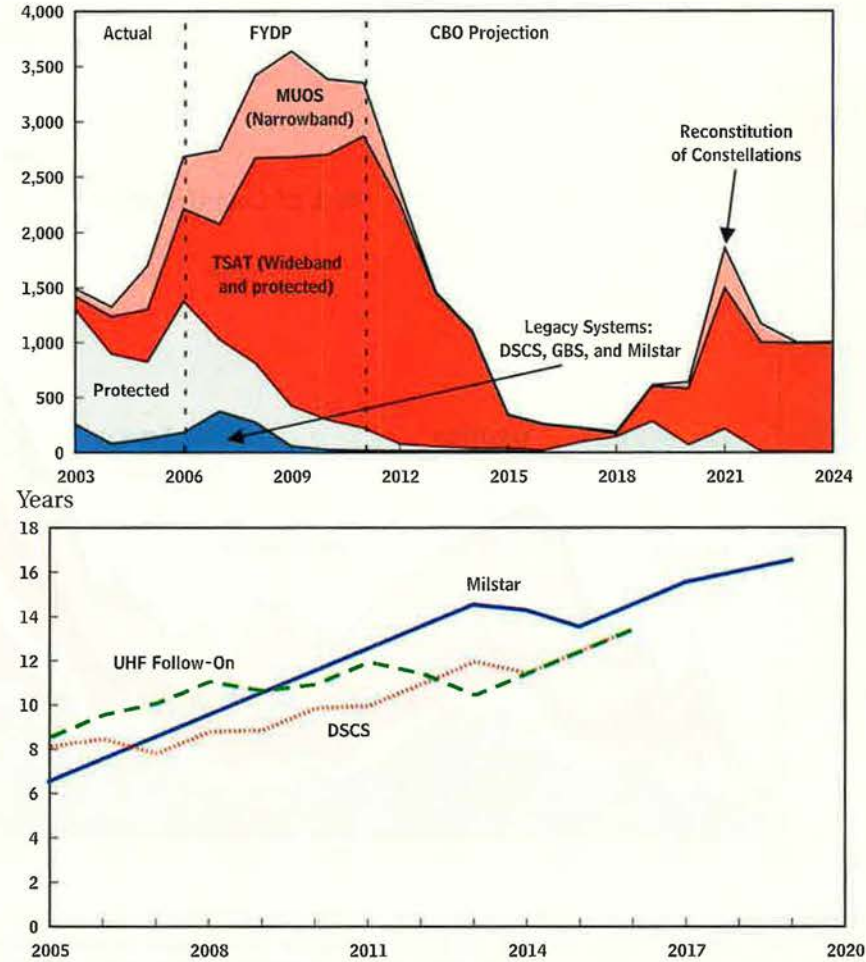
Planned investment through 2024 totals about \$32 billion, according to CBO estimates. Of this, \$27 billion goes to the Air Force for wideband and protected systems.

Among the Air Force projects is the Wideband Gap-filler System (WGS), which will replace Defense Satellite Communications System and Global Broadcast System payloads. Plans call for the first launch in 2006, with the full five-bird constellation operating beyond 2017.

Air Force Advanced Extremely High Frequency Satellite Communications System (AEHF) satellites will begin

## Communication Satellites

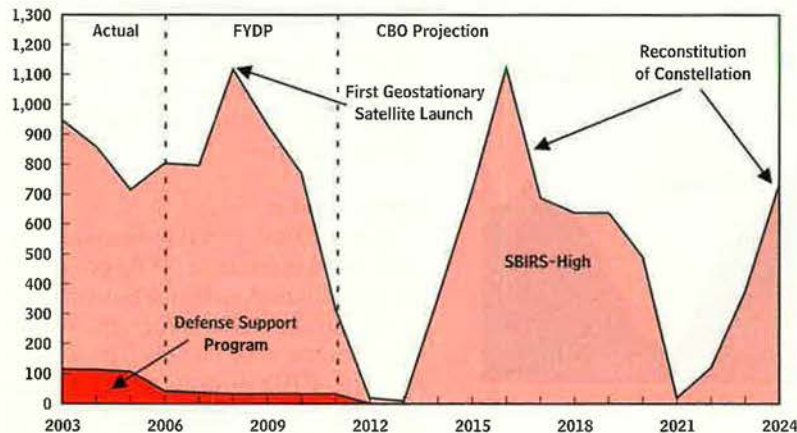
(Millions of 2006 Dollars)



As the top chart shows, Pentagon plans call for a huge investment in communication satellites. One reason: DOD's growing appetite for bandwidth. Another reason is the advanced age of today's satellites (see bottom chart). Even if all planned programs are carried out, US communication capacity could shrink after 2020. Fixing the problems will cost \$32 billion through 2024.

## Missile-Warning Satellites

(Millions of 2006 Dollars)



Infrared early warning satellites will consume billions of investment dollars. Missile warning today is provided by Defense Support Program satellites, the last of which will go up next year. DSP will be succeeded by the Space-Based Infrared System High, which will cost \$11 billion over the next two decades.

replacing Milstar in 2008. Because AEHF will provide coverage of the globe only up to 65 degrees latitude, it is to be augmented with satellites covering the northern polar region. Plans call for two Interim Polar payloads to be operating by end of 2006. They will be replaced by Enhanced Polar System payloads around 2013.

Then there is TSAT, a five-satellite constellation using laser cross-links offering wideband and protected services. The first TSAT launch is planned for 2013.

### Missile Warning

Missile warning capabilities are currently provided by the Defense Support Program. The newest DSP satellite was put up in 2004; the last is scheduled to be launched in 2006.

SBIRS High is the DSP successor. Current plans call for five satellites in geostationary orbit, plus two sensor payloads on other satellites in elliptical orbit. First launch is in 2008.

Total spending on the two missile warning systems is predicted to be \$11 billion through 2024, according to CBO.

### Navigation

Navigation is another large category of planned space investment. The Air Force GPS is the main factor. The 24-sat GPS constellation has been steadily improved over the years.

Right now, the Air Force is launching Block IIR-M satellites that will have two new military position, velocity, time, and navigation signals, as well as a second civilian signal.

Plans call for the Air Force in 2007 to begin putting up Block IIF satellites, which will add a third civilian signal.

Improved GPS Block III models—including such features as additional anti-jam capability—could launch in 2013.

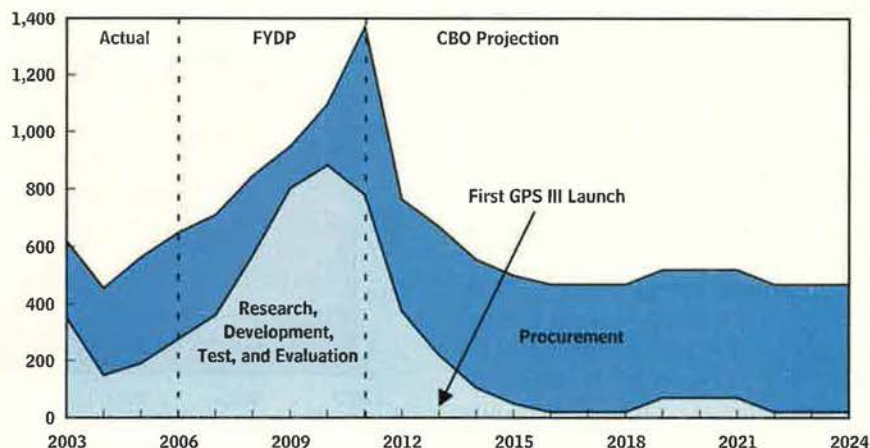
Given the current launch schedule, the average age of GPS satellites should stabilize at six years around 2014, according to CBO calculations.

The need to modernize the GPS system has been eased quite a bit by the unexpected longevity of the satellites. CBO confirms that many remain serviceable long after the end of their estimated service-life limits.

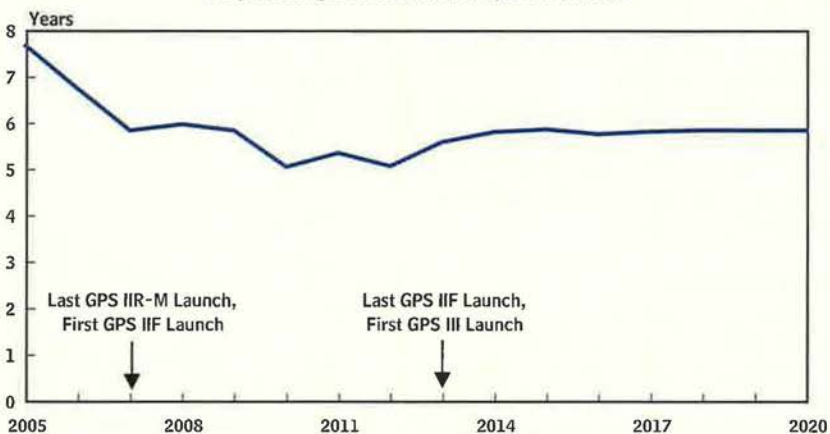
Total projected GPS investment through 2024 is \$12.5 billion.

## Navigation Satellites

(Millions of 2006 Dollars)



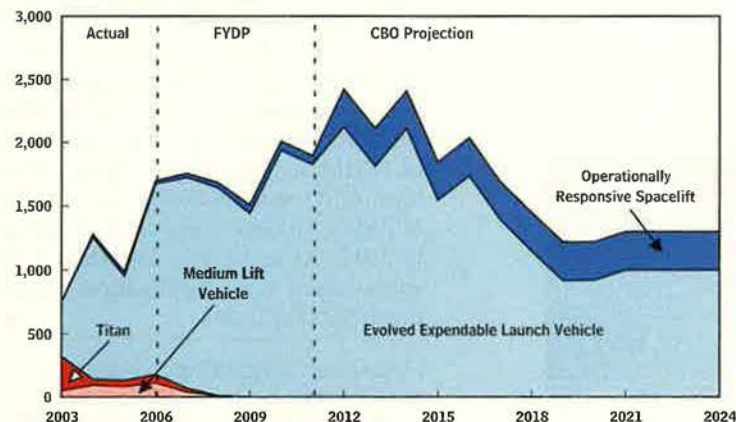
Projected Age of Constellation, 2005 to 2020



*Upgrades to USAF's Global Positioning System constellation make navigation a large category of space investment, which would peak in 2011 (top chart) and total \$12.5 billion through 2024. The average age of GPS satellites should stabilize at six years around 2014, as seen in the bottom chart.*

## Space Launch Vehicles

(Millions of 2006 Dollars)



*The business of spacelift is a huge enterprise, with the future based on two main elements—the Evolved Expendable Launch Vehicle program and the new Operationally Responsive Spacelift program. The EELV program is based on the Delta IV and Atlas V rockets. The ORS program will develop launchers capable of rapid placement of smaller payloads. Total expenditure: \$28 billion.*

### Weather Monitoring

DOD environmental monitoring activities are handled by five satellites—three from the Defense Meteorological Satellite Program (DMSP), two from the US Polar-orbiting Operational Environmental Satellite program. Four DMSP satellites have yet to be placed in orbit, according to CBO. Final launch is in 2012 or later.

The existing weather monitoring architecture will be replaced, beginning around 2015, by the National Polar-orbiting Operational Environmental Satellite System (NPOESS) and a single European Meteorological Operational Satellite.

A joint venture of the Air Force, Department of Commerce, and NASA, NPOESS is scheduled to begin launching in 2010.

CBO estimates that spending on environmental monitoring programs will total \$3.4 billion by 2024.

### Space Launch

Lifting all these planned satellites into space remains yet another large category of space spending, according to the CBO calculations.

Evolved Expendable Launch Vehicles (EELVs) are the systems of choice for launching most military satellites. The EELV program has two types of rockets, the Boeing Delta IV and Lockheed Martin Atlas V. Both variants can lift medium-size payloads of 11 to 17 tons, but only the Delta IV family includes a model that can muscle larger payloads of up to 28 tons into low Earth orbit.

In addition, space launch includes the new Operationally Responsive Spacelift program, intended to develop launchers capable of rapid placement of smaller payloads.

Launch needs dictate the US will likely require six to seven EELV launches a year through 2024, according to CBO. Total funding for this effort would be roughly \$28 billion.

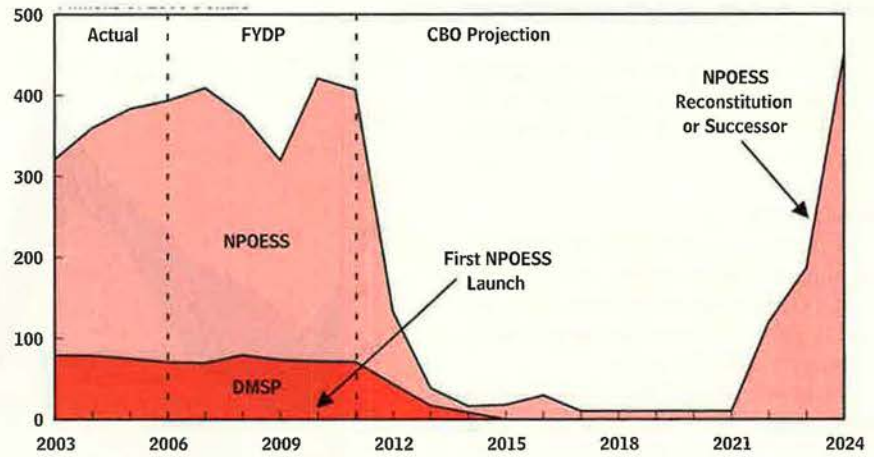
### New Ventures

Other unclassified space efforts include space control missions.

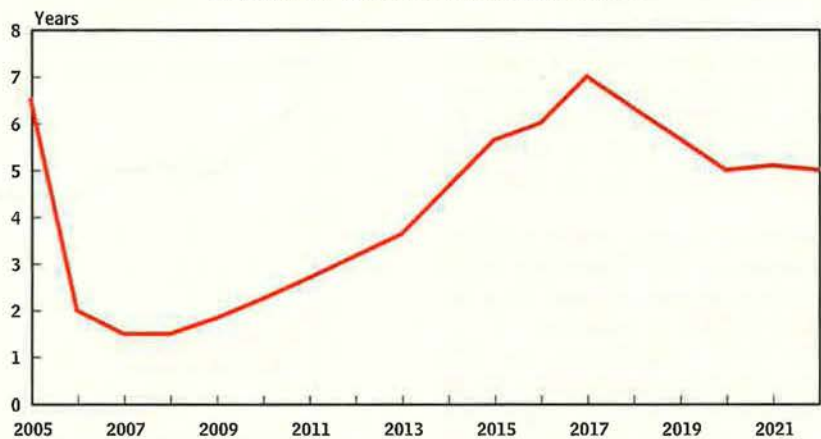
The Spacetrack program is developing radar and optical sensors to monitor space. The Rapid Attack Identification, Detection, and Reporting System and the Counter Communications System

## Weather Satellites

(Millions of 2006 Dollars)



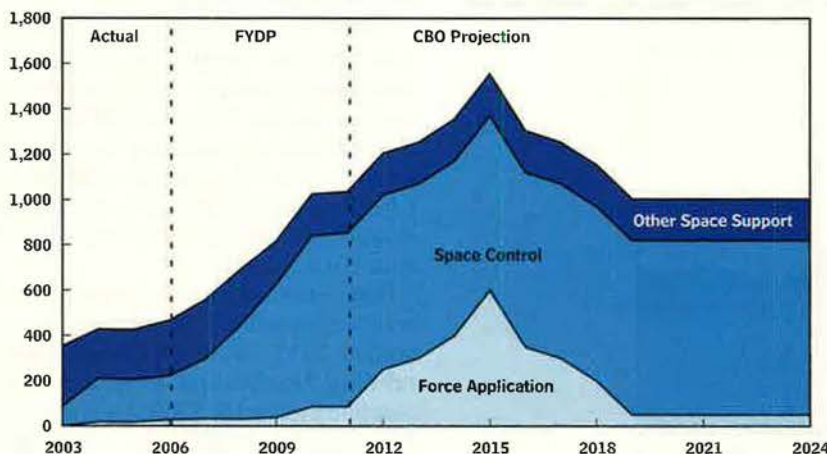
Projected Age of Constellations, 2005 to 2022



*The United States will spend a total of \$3.4 billion replacing its old fleet of weather-monitoring satellites. The year 2010 will see first launch of a National Polar-orbiting Operational Environmental Satellite System (NPOESS) satellite. This is a joint venture of the Air Force, the Department of Commerce, and NASA.*

## New Ventures

(Millions of 2006 Dollars)



*Emerging missions—space control and force application among them—will require a sizeable investment, peaking in 2015. Some systems such as radars and optical sensors will monitor objects in space. Others will give the Pentagon the power to disrupt space systems used by an adversary. The Air Force may develop a conventional warhead that could be launched from an ICBM or an orbiting platform.*

will provide capability to disrupt enemy space assets. Annual funding for space control should increase from \$195 million in 2006 to \$768 million in 2011, says CBO.

Force-application programs include the Common Aero Vehicle initiative, which will help develop a conventional warhead that could be launched from an ICBM or perhaps an orbiting platform. CBO assumes a deployment of 40 ICBMs with CAV warheads beginning in 2015. At that point, investment in space-based force application might reach \$600 million.

*Peter Grier, a Washington editor for the Christian Science Monitor, is a longtime defense correspondent and a contributing editor to Air Force Magazine. His most recent article, "The Air Force Sharpens Its Edge," with Adam J. Hebert, appeared in the November issue.*



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**Please visit the Air Force Association website at [www.afa.org](http://www.afa.org) for additional information and to register.**

The Air Force is locked in a global struggle to attack, defend, collect, and manipulate data.

# Information Battleg



USAF photo by MSgt. Lance Cheung

*Information warfare encompasses computer operations, electronic warfare, and so-called "influence operations." Sometimes information—such as intelligence obtained by the RC-135 Rivet Joint crew above—is put to immediate use on the battlefield.*

By Adam J. Hebert, Senior Editor

**A**CROSS a range of unusual battlespaces—global computer networks, human psychology, and electronic systems—the Air Force has become fully engaged in information warfare (IW), now deemed a critical element in the worldwide conflict with terrorists.

USAF is concentrating on three IW thrusts: network—that is, computer—operations, "influence" operations, and electronic warfare operations. In these new combat arenas, adversaries, and consequences of their actions, are constantly shifting.

Encounters rarely are unambiguous.

Take, for example, an unidentified intruder's success in hacking into the Air Force Personnel Center's Assignment Management System database, used by airmen for assignment planning. The hacker, acting last June, used a legitimate user's log-in and access codes and downloaded the names, birth dates, and Social Security numbers of 33,000 airmen, mostly officers.

In so doing, the miscreant, whoever he was, acquired vast amounts of data tailor-made for identity theft—or worse.

Maj. Gen. Anthony F. Przybyslawski, commander of AFPC at Lackland AFB, Tex., said officials became aware of a problem as the information was being downloaded. Security officers shut down the system, but the damage was done. Przybyslawski said the center's security standards simply weren't high enough.

This security breach did not pose a traditional military threat—apparently. However, it immediately focused attention on the difficulty the Air Force has in the ever-changing global information war. What if hackers, terror-

# round



ists, or hostile nations could acquire something more sensitive? What if the stolen information was not personnel data but schedules for the movement of nuclear warheads or classified stealth aircraft designs?

Building true information security is "indeed a monumental task," said Gen. William T. Hobbins, who led the Air Force's warfighting integration efforts before being confirmed to become the new commander of US Air Forces in Europe. "We have threats from multiple sources, ... everything from hostile attacks to inadvertent compromise."

In the past, spies also have used legitimate access illegitimately to obtain sensitive military information.

In one notorious case, retired Air Force MSgt. Brian P. Regan, working for the National Reconnaissance Office,

penetrated a classified database and downloaded images and coordinates of Iraqi and Chinese missile sites. He then tried, unsuccessfully, to sell the information to Baghdad and Beijing.

## Growing Threat

It is no secret that the US military has become highly dependent on its information systems. USAF defines these systems as including not only computer networks but also command, control, and communications equipment. Potential enemies believe that attacks on these systems constitute an effective way to strike at US military strength.

More than 20 nations, including China and North Korea, possess dedicated computer attack programs. In a 2005 Pentagon report to Congress on Chinese military power, officials wrote that the People's Liberation Army (PLA) sees computer warfare as "critical to seize the initiative," early in a conflict. The goal: achieve "electromagnetic dominance."

The PLA, warned the new Pentagon report, "likely" has established information warfare units able to "develop viruses to attack enemy computer systems and networks" as well as "tactics to protect friendly computer systems and networks."

A Chinese information warfare concept of operations "outlines the integrated use of electronic warfare, [computer attacks], and limited kinetic strikes against key C4 nodes to disrupt the enemy's battlefield network information systems," the Pentagon report observed.

US Strategic Command, DOD's lead organization for network warfare, contends that Pentagon-focused "intrusion attempts" have been growing quickly. In the first half of 2004, DOD suffered through more than 150 hostile intrusion attempts per day. In the first half of 2005, by contrast, there were more than 500 intrusion attempts per day.

The Air Force has seen similar growth in network attacks, but it has generally fended off the threats so far. Both foreign and domestic hackers are responsible.

The more the military comes to rely on network-based operations, the more it must defend those networks, said USAF Lt. Gen. C. Robert Kehler, STRATCOM deputy commander. Hobbins agreed. "The number and sophistication of attacks have increased," he said, but while "the number of suspected attempts to penetrate our systems has increased,

... the number of actual intrusions has decreased."

## Vulnerability Seen

The Pentagon has been at this for a while. In the late 1990s, DOD exercises, plus a number of strange attacks on DOD computer systems, raised the military's awareness of its vulnerability.

In 1997, Pentagon officials launched an internal exercise, code-named "Eligible Receiver." A Red Team of hackers organized by the National Security Agency was instructed to try to infiltrate Pentagon computer networks, using only publicly available computer equipment and hacking software. Although many details about Eligible Receiver are still classified, it is known that the Red Team was able to infiltrate and take control of some of US Pacific Command's computers as well as emergency systems in major US cities. Eligible Receiver revealed the surprising vulnerability of supposedly secure military networks.

Not long after Eligible Receiver, the US accidentally uncovered Moonlight Maze, a two-year-long pattern of probing of computer systems in the Pentagon, NASA, Energy Department, and university and research labs. Although the attacks, which were believed to have begun in March 1998, were traced to a mainframe computer in Russia, the perpetrators never have been publicly identified and may be unknown to the US. Russia denied any involvement.

Military information could be better protected by moving everything from the public Internet to the SIPR Net, a secret military network, but "the benefits wouldn't outweigh the costs," said Hobbins.

The Defense Department also must be careful not to go too far and make security so intense that it slows down military action. "We go too far when [infosec] restricts our ability to act and attack," said one official. "Our security system should resemble something more like a Kevlar body vest than full body armor."

The trend today is definitely toward protection. "I can tell you that information assurance has clearly increased in budgeting priority," Hobbins said. "We live in a resource-constrained environment, but we do have the means to counter the threats we face."

While the Air Force is continuously studying technologies and vulnerabilities, its IW effort is not completely devoted to fending off attacks. Defen-



**Data mining is paying dividends for troops operating in Iraq and Afghanistan. The Remote Operations Video Enhanced Receiver (ROVER), pictured, gives ground forces access to airborne video.**

sive and offensive information warfare operations are “intrinsically linked and complementary,” said Hobbins. He added, “Our efforts focus upon capabilities that will enable us to defend DOD assets and exploit, deny, degrade, disrupt, or destroy adversaries’ information [resources].”

STRATCOM would, if so ordered, conduct DOD’s information warfare operations. “You can see the potential” for offensive information warfare, said Kehler, by looking at what already has happened to the United States.

### Unique Challenge

Strategic Command today is embracing a “unique challenge,” said Rear Adm. Thomas E. Zelibor, STRATCOM director of global operations. The command is using information warfare as a way to “get the desired effects without blowing something up.”

While officials offer few specifics about what they are trying to accomplish in offensive information warfare, Zelibor said the goal is to “delay or disrupt the decision-making process of your adversaries.”

This could mean subtly channeling an enemy toward doing “what we want them to do,” said Zelibor.

If the goal is to collect intelligence, DOD might want to observe an enemy network that it has compromised and not automatically shut the network down.

Similarly, there is a critical need to be able to track lone individuals in the war on terror and not necessarily kill or capture them right away.

Army Gen. Bryan D. Brown, head of US Special Operations Command, testified before Congress this year that his “No. 1 technological shortfall” is the inability to “persistently and remotely locate, track, and target a human.” Seeing who terrorists interact with, listening in on their phone calls, and later swooping in to seize paperwork and laptops can yield a treasure trove of coveted “actionable” information.

Kehler said the most dramatic near-term improvements in intelligence probably will come through fusion, not new sensors. The “big leverage today” will come by “bringing it all together,” he said. Data mining, a relatively new intelligence tool, is a big part of the fusion effort.

SOCOM has a standing intelligence collaboration center that “has been

used extensively in supporting unique special operations requirements” in Iraq and Afghanistan, said Brown. The collaboration center uses “the equivalent of a Google search engine,” explained Air Force Maj. Gen. Donald C. Wurster, deputy director of SOCOM’s Center for Special Operations.

“Whenever we have people go out around the world, they’re bringing information back and plowing it into an infrastructure that enables us to mine it later,” he said.

Wurster told Congress this summer that as troops “were rolling guys up in Iraq,” SOCOM would run the information on fugitives through SOJICC, the Special Operations Joint Interagency Collaboration Center.

The center “printed out a notebook that would fit in a soldier’s thigh pocket,” Wurster continued. The information would tell the troops everything known about a captured terrorist or insurgent: “Here’s who his family is, here’s where he’s from, here’s who he’s hooked up with.”

Wurster described SOJICC as “the most significant piece of horizontal integration we have ... as a consumer of other people’s expertise.”

The Air Force plays a major role in gathering the tactical information needed for immediate use on the battlefield.

### Immediate Impact

USAF’s fleet of RC-135 Rivet Joint aircraft, for example, gathers signals intelligence and flies missions of up to 24 hours—seemingly making it ideal for the war on terror. Rivet Joint crews can listen in on enemy radio and cell phone conversations, providing immediate impact on the ground in Afghanistan and Iraq.



**Intelligence aircraft, such as this Rivet Joint, can listen in on enemy transmissions. The information gained can then be relayed directly to the tactical forces.**

Information gathered from the air is “key to how soldiers and marines do their jobs,” said Col. Dennis R. Wier, commander of the 55th Operations Group at Offutt AFB, Neb.

The RC-135 is so valuable, Wier said in an interview, that US Central Command and US Pacific Command have the Nebraska-based aircraft assigned to them around the clock, and Rivet Joints fly over Afghanistan every day.

Lt. Col. Ron Machoian said the crews know they are making a difference. “We hear it,” said Machoian, commander of the 38th Reconnaissance Squadron at Offutt. “I can listen to us informing an engagement on the ground, while I’m airborne.”

Intelligence personnel are in short supply, however. Maj. Jeff Lauth, acting director of operations for the 97th Intelligence Squadron at Offutt, said staffing for many positions is “critically low.” The airmen have skills that are in high demand outside the Air Force.

Enlisted airborne crypto-linguists are a particular concern. Wier said this summer that the 55th Wing was only 35 percent manned in linguists, partially because it takes up to three years to train new ones. To help fill the need, the Air Intelligence Agency recently created the Offutt Language Learning Center to help train linguists.

Language needs are much broader than during the Cold War. In addition to the “traditional” Russian speakers, DOD needs fluency in Arabic, Pashtu, Farsi, Dari, Urdu, Korean, and Mandarin Chinese.

RC-135s don’t have weapons, noted the language center’s 1st Lt. Brandon Middleton, so “language is the weapon it takes to the fight.”

Linguists cannot work without equipment, and obtaining the intelligence needed is an ongoing challenge. Wier noted that the RC-135s have their onboard equipment completely upgraded every year or two to ensure the US can continue to “get” enemy information.

It “blows you away, ... the type of things you can do” with the latest airborne intelligence equipment, said Maj. Gen. John C. Koziol, who was then commander of the 55th Wing and now heads the Air Intelligence Agency.

Constant upgrades and deployments make training difficult, he added. It is hard for Rivet Joint aircrews to keep current with the technology, Koziol



USAF photo by S/A. Carly Burke

**The Air Force has placed a premium on linguists who can interpret voice information that may be in Arabic, Urdu, Farsi, or some other non-Western language. Here, SrA. James Cromer processes raw intelligence from an RC-135.**

said, because each RC-135 variant has its “own little quirks.”

This is a necessary evil. Lt. Col. John Rauch, commander of the 338th Combat Training Squadron, noted that upgrades come directly from operational lessons. Combat aircrews continually develop new tactics and ideas for better equipment.

### Protecting Data

The Air Force Information Warfare Center’s IW Battlelab is tasked with quickly developing solutions to many of these operational needs. One recently fielded example is “Lockjaw,” a device to quickly destroy computer hard drives so that US information does not fall into enemy hands.

Col. David D. Watt, AFIWC commander, said the unit is working to build within USAF an awareness of the importance of defending and exploiting information. The center has an aggressor squadron conducting vulnerability assessments, Watt said, trying to get in base gates, access computers, and see what it can “piece together” from various sources. Officials are often surprised to learn what is found even in open sources.

A study on information operations in Iraq by the Air Force Command and Control and Intelligence, Surveillance, and Reconnaissance Center at Langley AFB, Va., described one security risk that came from an unlikely place—the Pentagon.

A B-1B bomber mission targeting Saddam Hussein received much public-

ity in the early days of Operation Iraqi Freedom. Details of the mission and crew members’ full names, commanding officer, and home base were widely reported.

This was “an egregious OPSEC [operations security] violation [that] potentially put the family members ... at risk,” stated the study.

AFIWC commander Watt said influence ops in particular are still on “the ground floor” doctrinally, and the center is trying to get the rest of the Air Force to understand what information warfare brings to the fight.

Even something as simple as “the truth” can be applied in different ways, noted Maj. Tadd Sholtis in the fall 2005 *Air & Space Power Journal*. If it is a military objective to deter an enemy from taking action, both an information operation and a public affairs tactic can be engaged.

The “IO influence tactic” would be to broadcast radio and television messages describing the futility of challenging the superior US military. The “PA tactic,” meanwhile, would “demonstrate military resolve by promoting media coverage of the deployment of combat-capable forces to the region,” Sholtis wrote.

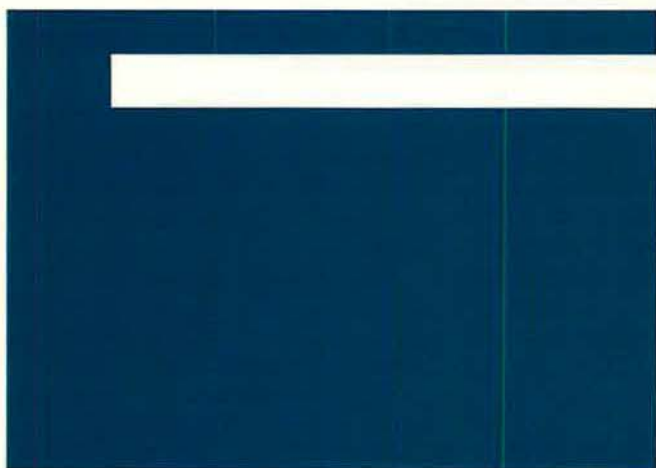
STRATCOM’s Zelibor said it is difficult to create metrics—battle damage assessment, if you will—judging the effectiveness of DOD’s information efforts.

Even so, he noted, strategists can tune in to foreign news sources to “look for the effects.” ■

The commander of US Northern Command and NORAD sees the US for what it is—a theater of operations.

# A Few Words From Tim Keating

By Marc V. Schanz, Associate Editor



**Adm. Timothy J. Keating**, who led US naval air forces in Gulf War II, is now commander of US Northern Command and North American Aerospace Defense Command. He has led the two homeland-defense-oriented organizations since November 2004. On Sept. 29, he talked with the Defense Writers Group about missile defense, domestic air sovereignty, and coping with disasters.

## Learning From Disaster

"In the aftermath of Katrina, we're doing a 'lessons learned.' ... We're more interested in what is it the country would need and identifying that need and then against that need providing a capability. Is it command and control? Is it communications? Is it search and rescue? Is it humanitarian assistance? Is it doctors and nurses to fall in on extant hospitals or is it to bring the whole hospital? So, there's that fairly broad, extensive list of DOD capabilities that you can kind of pick and choose or send in the main all of it."

## Guard First, Then Actives

"I would favor, all things equal, the current system, where the [National] Guard is trained and equipped to provide first response capabilities with local and state authorities. In the case where those capabilities are overwhelmed or just flat swept away—[in] Katrina there was no communication, the

roads were impassable, the first responders weren't there, they were gone—then I think there is a role to be considered for the active duty forces."

## Fighters for Air Defense

"They're very important, and we do have enough. A majority, I think the number is 70 percent, ... over half of the patrols we fly in ... NORAD since 9/11 in Operation Noble Eagle ... have been flown by [Air] National Guard forces. So, obviously, it's very important to us that they remain a viable force, and we think they are. We know they are. They've flown 41,000-some sorties ... without accident, which is a remarkable testimony to their maintenance folks who are working on the jets, the guys and girls who are flying the jets. So, they are an integral part of our Operation Noble Eagle plan, and we have sufficient assets and sufficient bases to continue that mission."

## Unpredictable Air Patrols

"Our [joint force air component commander], Maj. Gen. [M. Scott] Mayes down at Tyndall [AFB, Fla.], runs the flight schedule. ... So he coordinates with all of the active, Reserve, and Guard forces at our disposal and writes the flight schedule. We fuse [intelligence]; we pay very close attention to current threat streams. We watch that we don't repeat ourselves over certain parts of the country too often, but we want to be unpredictable. And we want the terrorists to know that we're going to be responsive, we're up there, and we're ready. And whether it's forces that launch out of a certain base and fly a fairly good ways with tanker capability to get to another [combat air patrol] point, or just fly right overhead, ... the bad guys just have no chance of figuring out where the jets are, understanding that they are on alert at a large number of bases [around the country] 7/24/365, and can be airborne in less than eight minutes."

## Forces in War, Forces in Peace

"If we [Northern Command] were to ask for [units] specifically, is it, in the larger scheme of things, going to have an adverse impact on overall DOD efforts? And so, Joint Forces Command and the Joint Staff balance that requirement and request very carefully against worldwide needs and give us the green light, ... as was demonstrated in Katrina with the 82nd Airborne, 1st [Cavalry Division] out of Ft. Hood [Tex.], Navy forces that were in the area and deployed out of Norfolk [Va.], and Air Force units—principally search and rescue—that came throughout the Southeast United States. In no case were any of those forces on a short tether, if you will, for other DOD obligations worldwide. We pay attention to it, of course, so that when the mission is complete, we can get those forces back to their home base so they can resume their training, ... so they can be ready to go if something causes their deployment elsewhere."

## What Katrina Taught

"No. 1 [lesson] was [the need for] getting communications and situational awareness. On the top of our list will be command and control. And it isn't just between state National Guard and Title X forces; it will be the suite of folks who respond. It includes local traffic cops, local sheriff departments, highway patrolmen, Red Cross personnel, everybody who comes to a scene of a disaster. We have to do a better job of providing reliable, mobile communications capabilities that are interoperable, that are flexible. ... We're going to use some off-the-shelf stuff, and we're already in discussions with commercial vendors. ... As you remember in the aftermath of Sept. 11, I was in the Pentagon that morning. Cell phones didn't work—BlackBerrys did. ... Our lessons learned effort will be an unconstrained, top to bottom review of capabilities desired, capabilities extant in the world today, and then capabilities that will need to be developed. And if it turns out, as an example, that an extant system is survivable, ... you can count on it in times of disaster, and it's relatively inexpensive, we'll be happy to consider that."

## Raw Power

"If you harnessed all the generators that are at the ground of Niagara Falls, it would take 63 generators 240 days to generate the power that was expended by Katrina on the coast of Louisiana [and] Mississippi. So that's a big force. A 10 kiloton nuclear bomb ... [is] much, much different in

**"We want the terrorists to know that we're going to be responsive, we're up there, and we're ready."**

**"In the very, very unlikely case of a [ballistic] bolt out of the blue, we have assets in place to deal with that."**

its consequences. ... The consequences and the management of those consequences, that's the second part of our mission. If it's man-made, we're going to do our best to deter it and defeat it. If it's natural, we can't do much about it except deal with the consequences in as rapid and efficient a fashion as we can."

## Missile Defense: We Pull Triggers

"The President hasn't yet declared ... limited defensive operational capability. He has not yet given us that authority. And what you'll say is, 'Who's us?' Gen. [James E.] Cartwright at [US Strategic Command] is the general overseer of the development of the program, along with Missile Defense Agency [Director] Lt. Gen. [Henry A.] Obering [III]. We at Northern Command and to a slightly lesser extent [US Pacific Command] have been participating in the program development. The current plan has Northern Command being the primary operational arm of the program. That is to say, because we are the geographic command charged with defending America, we will be the folks ... who will pull the trigger if ballistic missile defense is required. ... Missiles are in the ground, kids are trained, systems are in place."

## Bolt From the Blue

"I can't order [the PACOM commander to give NORTHCOM the use of his assets], but we would coordinate and then go to the Secretary if there was a heightened sense of alert required. PACOM would move assets in his theater in coordination with Northern Command, as we were the trigger-pullers. ... So it would be in coordination directed through the Office of the Secretary of Defense. ... There will likely be various alert levels. ... What do we know countries are doing? What do our analysts tell us that might mean? Therefore, what sort of alert posture should we adopt? And in the very, very unlikely case of a [ballistic] bolt out of the blue, we have assets in place to deal with that."

## STRATCOM Is "Executive Officer"

"I guess you could say [US Strategic Command is] the chief executive officer. ... There are global implications here, and, right now, the system is oriented in a certain direction. As other assets come online internationally, there will be other combatant commanders who will be involved. STRATCOM is Secretary Rumsfeld's lead for the overarching program, in close coordination with the Missile Defense Agency." ■

**Gen. Ira Eaker was a blend of operational talent, leadership, shrewdness, and salesmanship.**

# Eaker's Way



*Eaker led air campaigns throughout the European Theater. In the center of this photo, Eaker is planning air support for the attack on Anzio-Nettuno in Italy. He is flanked by Maj. Gen. Nathan Twining (left) and Maj. Gen. John Cannon.*



By Rebecca Grant



**Gen. Ira C. Eaker** helped shape World War II airpower and pave the way for an independent United States Air Force. For those and other reasons, his name is respected, yet his historical image is often overshadowed by his more prominent colleagues and friends, Gen. Henry H. “Hap” Arnold and Gen. Carl A. “Tooyey” Spaatz.

Eaker was the youngest of these three generals, and biographer James Parton—who had been his wartime aide—described Eaker as forever the third of the “three musketeers.”

He made his mark early as an operator and grew into a commander who put combat priorities first. Eaker also set himself apart with his passion for writing, public speaking, and personal persuasion. Among those who gained an appreciation of airpower from him was none other than Prime Minister Winston Churchill.

It takes a few stories, however, to show Eaker in something like true perspective.

#### The Pioneer

An airplane that set down in an emergency landing at Ft. Bliss, Tex., in 1917 changed everything for Eaker, who was an infantry second lieutenant. He walked over to the airplane to see if he could help the pilot. Eaker examined the engine, reattached a spark plug lead, and helped the pilot turn the propeller to crank the engine. The pilot was an Army Signal Corps recruiter, and he had gotten his man.

Lieutenant Eaker trained at Kelly Field, Tex., and was posted to San Diego’s Rockwell Field. Eaker missed overseas duty in World War I, but, in a way, that proved to be fortunate. The commanding officer at Rockwell Field was Col. Henry H. Arnold, and his executive officer was Maj. Carl A. Spaatz. These veteran airmen appointed 22-year-old Eaker as their post adjutant.

For the next 20 years, Eaker distinguished himself through his zest for flying challenges of all kinds and his increasing skill in command and advocacy of airpower.

He was in Washington, D.C., for the court-martial of Brig. Gen. Billy Mitchell, which helped further to strengthen the bond between Arnold, Spaatz, and Eaker.

Maj. Gen. Mason M. Patrick, the Chief of Air Service, assigned Eaker to locate Air Service records to help

Mitchell prepare his testimony. Soon, Eaker was meeting at night with Arnold and Spaatz, going over the day’s events. Patrick counseled the officers not to get carried away with their support of Mitchell, because it could torpedo their careers. (See “The Spirit of Billy Mitchell,” June 1996, p. 66.)

As Eaker recalled years later: “We talked it over, faced up to it, and decided to go ahead with it anyhow.”

Eaker was too junior to testify and, unlike Arnold, he escaped banishment, but the experience left its mark. He came to respect Patrick’s steady, disciplined advocacy of airpower and thought ultimately that Patrick had achieved real gains. Eaker himself opted to take a little of Mitchell and a lot of Patrick to become a persuasive airpower advocate himself.

However, it was flying that guaranteed his place in the tiny airpower community of the interwar years. He was selected for a five-month goodwill tour across South America in 1927.

Two years later, he was a natural choice for another grueling adventure: the flight of *Question Mark*, which he undertook with Spaatz, 1st Lt. Harry A. Halverson, 2nd Lt. Elwood R. Quesada, and flight mechanic Sgt. Roy W. Hooe. Together, they took on the aerial refueling endurance record that then stood at 37 hours. (See “*Question Mark*,” March 2003, p. 66.)

Eaker was chief pilot, while Spaatz was flight commander, boom operator, and hose connector, all in one. *Question Mark* took off on Jan. 1, 1929, with the idea of showing off for crowds at the Rose Bowl. It remained aloft for more than six days.

Characteristically, Eaker’s report on the experience cited the technical and operational factors. Refueling was not really practical in the underpowered aircraft of the day because the equipment required reduced the bomb load, he concluded.

Eaker worked to improve instrument flying, and, in 1936, he completed the first cross-country instrument flight.

Eaker was still a captain when he set out to do all he could to promote airpower to the public. He and Arnold eventually co-authored three books pumping Army airpower. *This Flying Game* appeared in 1936, followed by *Winged Warfare* in 1941 and *Army Flyer* in 1942.

In 1937, he began a tour in Washington in public affairs. The two sides of Eaker came together spectacularly in 1938. Eaker helped arrange for



**In 1926, Eaker was one of 10 pilots selected for a five-month South American goodwill tour that stretched into 1927. Eaker (left) is shown with 1st Lt. Muir Fairchild, Eaker's crewmate for the South American mission.**

three B-17s to intercept the Italian ocean liner *Rex*, as it sailed toward New York.

First Lt. Curtis E. LeMay did the navigation. The B-17s found their quarry several hundred miles out, photographed it, and made all the front pages. The incident so irked the Navy that it protested that the airmen were getting in the way of the Navy's right to control the sea-lanes.

In 1940, Arnold sent Eaker off to a tactical command, the 20th Pursuit Group at Hamilton Field, Calif. Eaker threw himself into large-scale operational maneuvers. He also flew early test models of the P-47 and the P-51. He was ready for the next major step: command of Eighth Air Force.

First as bomber commander, then overall commander, it was here that Eaker won fame. *In fact, the Army Air Forces' "Confidential" Picture History of World War II* listed Eaker among the "great captains of air war."

### On to England

Eaker's mission was to build up forces for a heavy bomber offensive. It was every bit an expeditionary operation. He had to start from scratch, and the place to start was as an understudy to Arthur T. "Bomber" Harris. (See "Bomber Harris," January, p. 68.)

Harris and Eaker hit it off right away. They had met in Washington in January 1942 and agreed to disagree on the merits of night bombing—then the RAF specialty—versus daylight bombing. By February, Eaker was a live-in guest

of Harris at his command post in High Wycombe.

At first, Eaker really had no air forces at all. In February 1942, the Eighth had a staff of six in England. The advance echelon made it over by convoy in May. Eaker had to borrow A-20s from a training unit to mount a raid on July

4, 1942. Eighth Air Force took delivery of its initial lot of 40 heavy bombers in mid-July.

Not until Aug. 17 did the first B-17s see action over occupied Europe. That raid on France marked the beginning of a buildup that did not culminate until the 1944 Normandy invasion was near. Eaker's sternest lessons were in aircraft supply, aircrew training, organization, and, of course, the weather.

"Weather greatly affected and sometimes controlled air operations," Eaker later wrote. Missions were often scrubbed for bad weather over the target or at the English airfields.

Gradually, Eaker built the mighty Eighth. There were 185,000 men and 4,000 airplanes on the books by December 1943. Eaker always paid close attention to technical and operational matters—including how to sortie and marshal hundreds of airplanes from dozens of separate airfields and point them toward their targets. Issues such as improving VHF radios and other equipment took much of his time.

To Eaker, the combat learning curve was manageable—it was logistics that remained the major challenge, especially because there he had to deal with the British allies. However, Eaker believed

**Eaker was involved with many prominent airpower events, including the flight of Question Mark, shown here. In 1929, Question Mark demonstrated aerial refueling possibilities and stayed aloft for almost seven days. Here, Question Mark takes on fuel from a tanker flying above it.**



## "This Is the Life"

Remember this episode as the quintessential portrait of Gen. Ira C. Eaker: When his Eighth Air Force B-17s were preparing for their first raid on the rail yards at Rouen on Aug. 17, 1942, Eaker decided to go with them.

Military policy frowned on attempts by senior officers to accompany their aircrews on missions. That was one thing Eaker's friend Gen. Carl A. Spaatz never got to do.

"Both men were privy to much secret information, and both men would be hard to replace if lost, so Spaatz had to stand down from the mission," wrote Spaatz biographer David R. Mets.

Eaker decided to fly the mission regardless. He also made sure plenty of reporters would be on hand to cover the event.

On the afternoon before the mission, Eaker joined fellow officers on a duck shooting expedition at a nearby British country estate. While crawling under a fence to reach the shooting area, he accidentally rolled into a nest of hornets. The doctor found 27 hornet stingers in him—a near lethal dose. He gave Eaker antivenin medication and sedatives and then confined him to bed in the infirmary.

When the orderlies came to check on him the next morning, Eaker was gone. He was aloft in *Yankee Doodle*, the lead B-17 of the day's second formation. The B-17s of the 97th Bomb Group made their attack under Spitfire escort and—according to Eaker—scored hits on the rail yards. Flak was light and only a few FW-190s and Me-109s tangled with the Spitfires.

Spaatz and the reporters were there to greet the airplanes when they landed.

Eaker was grinning and jubilant. A reporter on the scene described him this way: "In this curiously divided personality, the flier is always dominant. ... Eaker's mantle of aloof and cosmopolitan dignity parted briefly and disclosed for an instant the tempestuous wind-driven airman within."

Eaker was heard to say of the raid that he never got such a kick out of anything in his life. "When I saw that old, snub-nosed Focke-Wulf coming up at us, I said to myself, 'Boy, this is the life!'"

he had an advantage over the RAF because the "operational level Air Force commander also commanded his supply and repair echelon," a system gradually extended to the wing level for bombers and fighter bases alike. In his opinion, putting operations in command of maintenance worked well.

Eaker wasn't producing fast enough for Arnold. From Washington, Arnold kept constant pressure on Eaker, beating him up in private cables and letters just as if he were still the young lieutenant post adjutant. Spaatz was gentler by nature, and, being in theater, he and Eaker had more chances to meet.

Eaker also had to fight to continue daylight bombing. Harris wrote Arnold early on in 1942 that Eaker would "find it necessary to go easy with the daylight stuff until he has felt his way." The problem was that by the end of 1942, the Eighth had barely mounted 1,000 sorties against targets on the continent. Harris had done more in one night with a 1,000-bomber raid on Germany.

In January 1943, Eaker got his chance to defend the strategy when he was summoned at the last minute to Casablanca. High-level summits in World War II were severe secrets, and even senior commanders usually had no idea they were taking place and received little advance notice of discussion topics.

At Casablanca, Churchill was going to pressure Roosevelt to put US bombers under RAF control and give

up daylight bombing. The Americans believed daylight bombing was the key to the top priority mission: destroying the Luftwaffe to win air superiority for an invasion of France. Army Chief of Staff Gen. George C. Marshall, Lt. Gen. Dwight D. Eisenhower, commanding general, European Theater of Operations, and Arnold had been planning on that invasion since the US joined the war. But Churchill had other notions.

Eaker's ability to write fast helped. In three hours, he drafted "The Case for Daylight Bombing" to give to Churchill, then added pages of extra arguments for Arnold's use. "I decided to back Eaker," Churchill conceded, "and withdrew all my opposition to the daylight bombing."

Brig. Gen. Haywood S. Hansell Jr., then 1st Bomb Wing commander in Eighth Air Force, concluded that if Eaker "had bowed to the RAF and British requirements to go in for night bombing, the whole course of the war would have been changed. It would have been quite impossible to defeat the German Air Force."

Instead, Casablanca produced the Pointblank directives that set airpower to destroy German airplane production factories on the ground and fighters in the air.

### Unrelenting Fury

The Eighth's fiercest battles at places like Munster, Schweinfurt, and Regens-

burg were still ahead. The bombers were the only weapons capable of attacking Germany itself or doing battle with German forces in occupied Europe. As the RAF had already found, everyone was waiting eagerly for big blows to fall on the Nazi forces. Eaker's perseverance and stamina as a commander guided the Eighth and the bomber offensive through both heavy losses and high expectations.

With aircraft constantly being diverted to other theaters, Eaker struggled to mount the big raids needed for Pointblank. He pointed out: "Armies and navies do not fight every day, but for some reason the general public has come to expect air forces to fight daily."

In the summer of 1943, Eaker's airmen started to deliver. Messerschmitt production plants at Regensburg and the ball bearing works at Schweinfurt were top targets. Schweinfurt, for example, accounted for 43 percent of Germany's ball-bearing production. (See "Against Regensburg and Schweinfurt," September 1993, p. 48.)

Eaker sent two formations of bombers to Schweinfurt and Regensburg on Aug. 17, 1943. One group under LeMay shuttled on to land in North Africa.

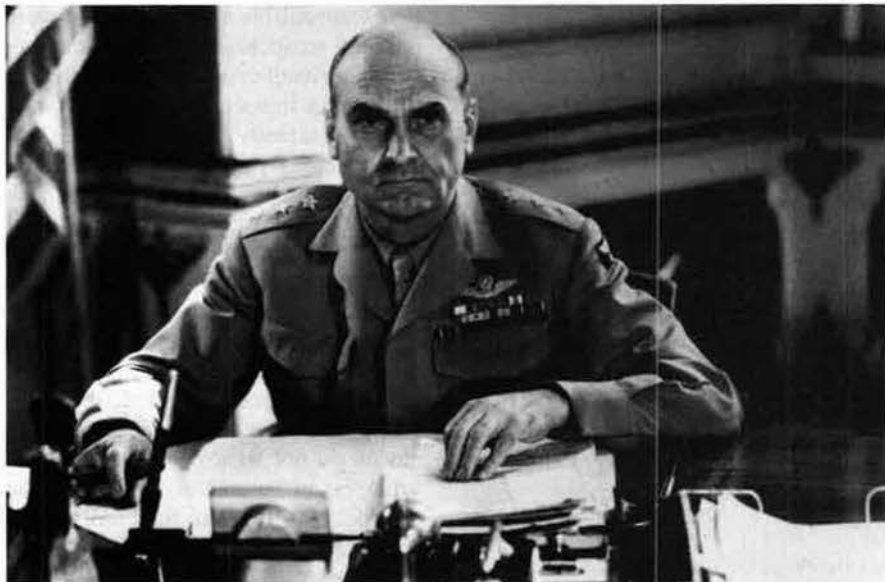
The next day, Eaker woke up a B-17 crew that had made it safely back from Schweinfurt. They recruited a B-17 that had not gone on the raid because of a chronic engine oil leak. Some 30 hours later, Eaker was in North Africa with LeMay and his airmen to survey the damage and lift spirits. LeMay had lost 24 of 146 B-17s. Twenty more were beyond repair and 40 were seriously battle-damaged.

Through it all, Eaker had to take heat from Arnold pressuring him for more results. Still, Washington's pressures could scarcely have been as difficult as Eaker's decision to send bombers back for the second Schweinfurt raid in October 1943.

That raid was Eaker's vindication. Losses were still very high, but results were good. All agreed the German Air Force was losing the hard struggle. Most of all, the Eighth was now a battle-hardened force, ready to take losses from the German fighters and carry on. Eaker wrote Arnold: "We must continue the battle with unrelenting fury."

But Eaker would not be the one to do it. Allied commanders were preparing for the invasion of France. The air forces were reshuffled.

Step one was the decision in early December 1943 to appoint Eisenhower



**Eaker was a master air planner with a gift for persuasion. In 1943, at Casablanca, he quickly persuaded Winston Churchill to abandon Churchill's ideas of putting US bombers under RAF control and abandoning daylight bombing operations.**

as supreme commander for Operation Overlord.

Step two was to redo the other command arrangements—it was this shift that separated Eaker from Eighth Air Force. A cable on Dec. 19 tentatively designated Eaker to take over command of the Allied Air Forces in the Mediterranean. Spaatz was to move to England in charge of the newly designated United States Strategic Air Forces in Europe—basically, a giant bomber command using the Eighth and the Fifteenth.

Tactical air for Normandy was to be concentrated under the Allied Expeditionary Air Forces. Lt. Gen. Jimmy Doolittle would come up to command the Eighth, while Maj. Gen. Nathan F. Twining took the Fifteenth.

Spaatz would have administrative command of all air units, although operational control of AEF was reserved for Eisenhower and his deputy. The transfer stood out as “the most painful transition in Eaker’s career,” as biographer Parton put it.

Eaker tried to prevent the change with cables to Arnold, Spaatz, and Eisenhower before he got his final orders. “Believe war interest best served by retention command Eighth Air Force,” his cable to Arnold began. Eaker pleaded that he had organized the Eighth from the start, and “it would be heartbreaking to leave just before climax” of the heavy bomber offensives.

However, the logic was inescapable. A British general was taking overall command in the Mediterranean so an

American air deputy was needed. There was no point doubling up Spaatz and Eaker in England.

It took Eisenhower to soothe the situation. “As you well know, I would be more than delighted to have you with me,” Eisenhower cabled to Eaker in late December. However, as Eisenhower pointed out, it was Arnold who had suggested the transfer of Eaker to the Mediterranean. “We do not (repeat not) have enough top men to concentrate them in one place,” Eisenhower finished.

#### **After the Eighth**

Eaker faced new challenges in the Mediterranean, and becoming overall air commander was an upward move.

“General Eaker Moves Up,” blared a *New York Times* editorial headline.

As the dust settled, “there was not much concrete evidence to suggest that the transfer was anything other than Arnold said it was—a desire to spread his strongest commanders among the theaters,” wrote biographer David R. Mets.

In the Mediterranean, Eaker flourished. He directed air support for offensives in Italy. He set up liaisons with Tito’s partisans in Yugoslavia. He participated in shuttle bombing missions, from Italy to Germany, where aircraft went on

to land in Russia. From that experience, Eaker formed strong views on when to trust his Russian counterparts.

Still, a piece of his heart remained back in England. Eaker was in Russia on June 6, 1944, as the long-planned invasion of Normandy began. When he learned that the Luftwaffe didn’t show, Eaker called the moment “my greatest personal satisfaction in World War II.” The Eighth had done its job.

Marshall called Eaker back to Washington to take over as Arnold’s deputy in March 1945. Spaatz kept Eaker as his deputy when Spaatz became Chief of Staff. Here, Eaker’s timing was perfect, for he was in at the beginning of Air Force independence.

After he left the service in 1947, he became a vice president of Howard Hughes’ Toolco company. Hughes had just lost money on *Spruce Goose*.

After a few years of Eaker’s guidance, Hughes Aircraft grew from 800 to 27,000 employees and dominated the electronics and radar business on the West Coast.

Eaker the writer kept busy. He wrote a syndicated column on national defense for Copley News Service for 18 years, was a frequent lecturer, and, of course, contributed to *Air Force Magazine*. He brought curiosity and powers of observation to bear on anything that affected airpower, from engine problems to newspaper articles. According to Parton, Eaker published 329 periodical articles.

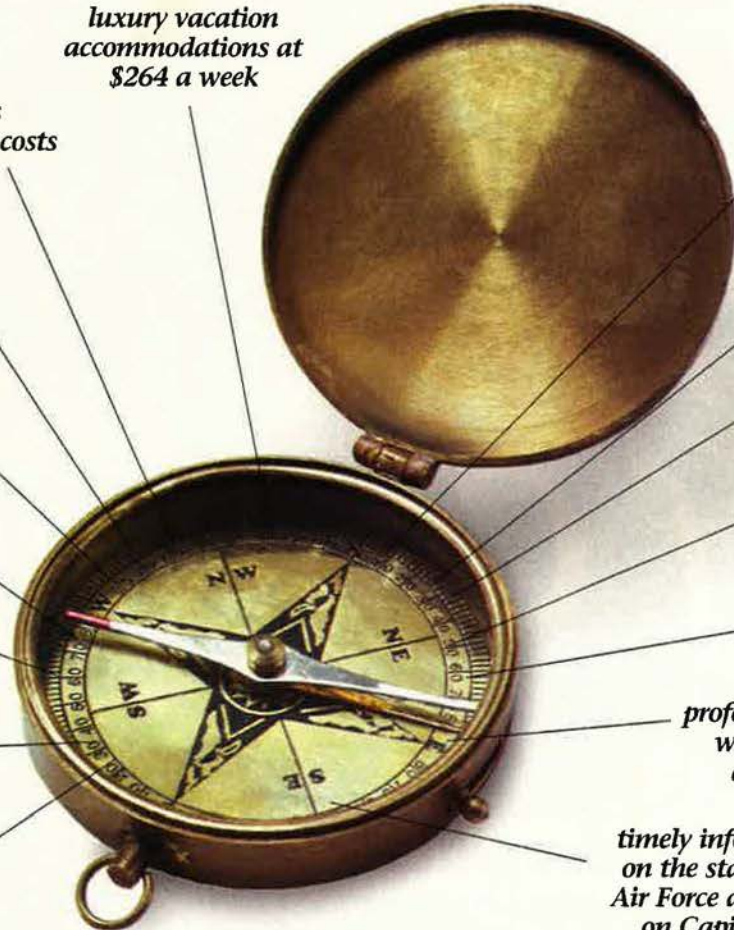
One of the most interesting was his lead-off essay for *Impact*. In it, Eaker listed the three main air missions in Europe in order: destruction of the German Air Force, support to Allied armies and navies, and demonstration of “strategic value” in attacks on Third Reich weapons-making and war-waging capacity. Eaker gave leadership, weapons, and organization the chief credit for the Allied air victories. Those factors were closely followed by good weather support, intelligence, and “command, control, and morale.”

In April 1985, Congress awarded him a fourth star. Gen. Charles A. Gabriel, Air Force Chief of Staff, welcomed the 89-year-old Eaker to the Pentagon to pin on the rank. ■

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*Rebecca Grant is a contributing editor of Air Force Magazine. She is president of IRIS Independent Research in Washington, D.C., and has worked for RAND, the Secretary of the Air Force, and the Chief of Staff of the Air Force. Grant is a fellow of the Eaker Institute for Aerospace Concepts, the public policy and research arm of the Air Force Association's Aerospace Education Foundation. Her most recent article, "Total Force Turbulence," appeared in the October issue.*

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# The *Red Tail* of Courage

*The Alabama ANG pays homage to the Tuskegee Airmen,  
legendary African American pioneers of World War II.*

Photography by Greg L. Davis

AF 34  
86

City of Tuskegee

**ALABAMA**

**IN HONOR  
OF THE**



**41**

*The distinctive red tail of a Tuskegee Airman fighter can be seen on this F-16C of the 160th Fighter Squadron, 187th Fighter Wing of the Alabama Air National Guard. It bears the name City of Tuskegee, the Alabama town where America's first black airmen trained. At top left is a patch worn by squadron members.*

**T**he Tuskegee Airmen—America's first black military fliers—were pioneers against racial discrimination. In the 1940s, they underwent flight training at Tuskegee Army Air Field, Ala., to become part of the World War II Army Air Forces. Though these African American airmen flew bombers and several types of fighters, only their P-51C Mustangs sported the famous red tails.

The idea of reviving the red-tail paint scheme came from Col. Stanley Clarke, the 187th Fighter Wing commander. He acted after learning of an impending visit by Lt. Gen. Daniel James III, the Air National Guard director and son of the late Gen. Daniel "Chappie" James Jr., a Tuskegee Airman. The Alabama Guard wing got the blessing of the Tuskegee Airmen organization and proceeded.

In the 1968 photo at right, then-Colonel James pins second lieutenant bars on his son.



USAF photo

USAF photo



At left, members of the 332nd Fighter Group take a pre-mission briefing inside an operations room in Italy. The first Tuskegee aviation cadet class emerged from training in March 1942. Five members successfully completed the course and received silver pilot wings. By 1946, a total of 992 graduates had received commissions and wings. About half served overseas in the 332nd Fighter Group or the 99th Fighter Squadron (which in 1944 transferred to 332nd control). The outstanding record of black airmen during World War II was an important factor in the push for racial equality in America.

Right, 1st Lt. Nick Hare, a pilot of the 160th FS, reviews maintenance forms with SrA. John Green, the aircraft's crew chief, before taking off on a training mission. Far right, the red-tailed F-16C rolls inverted during the training exercise over Alabama.

The 187th FW, based at Dannelly Field in Montgomery, flies Block 30 F-16C fighters. The unit's members have been called on in the last few years to take part in Operation Noble Eagle, the post-Sept. 11, 2001, combat air patrol missions over US cities, and twice to support military operations in Iraq. The wing became the first US unit to employ in combat the new GBU-38, a GPS-guided 500-pound bomb. It was used in the November 2004 battle of Fallujah in Iraq.



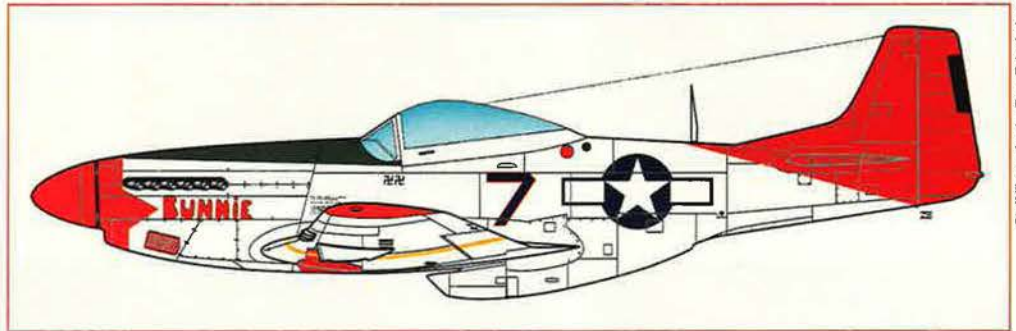
Photos by Greg L. Davis





Photos by Greg L. Davis

Above left, the pilot releases a flare as City of Tuskegee goes vertical over Alabama while, above right, the F-16C heads downward during a loop. Drawing at right depicts the red-tailed P-51D of Capt. Roscoe Brown, a Tuskegee Airman of the 332nd. Brown shot down two German aircraft, including (on March 24, 1945) an Me-262.



Staff illustration by Zaur Eylanbekov



The photo at left captures City of Tuskegee seconds before landing at Dannelly Field.

Each aircraft of the 187th Fighter Wing bears the name of a major city or town within the state of Alabama. It is the only unit in the Total Air Force to follow this practice.

At right, three munitions team members—(l-r) SrA. Carnel Jenkins, TSgt. Steven Root, and SrA. Dustin Wester—carry an AIM-9 Sidewinder weapon toward the waiting F-16, helping to configure it for its next training mission. The entire 187th team carries out a challenging training regimen each year.



USAF photo



In photo at far left, World War II pilot Andrew Turner and another unidentified Tuskegee Airman are pictured with the Mustang called Skipper's Darlin' III. African American pilots such as these fought in the air war over North Africa, Europe, and the Mediterranean, losing not a single bomber to enemy action during more than 2,000 escort missions. They destroyed 111 German airplanes in the air and some 150 on the ground. Sixty-six Tuskegee Airmen were killed in action or in accidents, while 32 were taken prisoner.

Left, SSgt. Anthony Broome, crew chief, and Amn. Miles Watkins, assistant crew chief, observe from behind as City of Tuskegee runs its engine in a preflight check. Below, vapor streams from the wings of the F-16C as its pilot pulls hard to acquire a target.



Above, TSgt. Ryan Blankenship (l) and SMSgt. Wesley Apperson found paint. The serial number was changed from tactical grey to white. The markings were completed with the addition of specially made Tuskegee Airmen decals.





Top, the Red Tail F-16 flies in formation with an ANG KC-135R. Above, City of Tuskegee and friend roll toward a target during a recent exercise. Above right, three fighters prepare to refuel.

At right, four Tuskegee Airmen return to a war zone—Balad Air Base in Iraq. Capt. Mark Ferstl (l) shows a UAS ground control station to retired Lt. Col. Lee Archer (sitting), retired Lt. Col. Robert Ashby (back left), and retired Col. Dick Toliver (leaning on chair back). An unidentified Tuskegee Airmen sits at far left. In October, they made a fact-finding trip to the 532nd Expeditionary Operations Group—descendent of the unit the Tuskegee Airmen formed in 1941. Said the 332nd Air Expeditionary Wing commander, Brig. Gen. Frank Gorenc: "For the Tuskegee Airmen, the legacy continues in the air and on the ground." ■

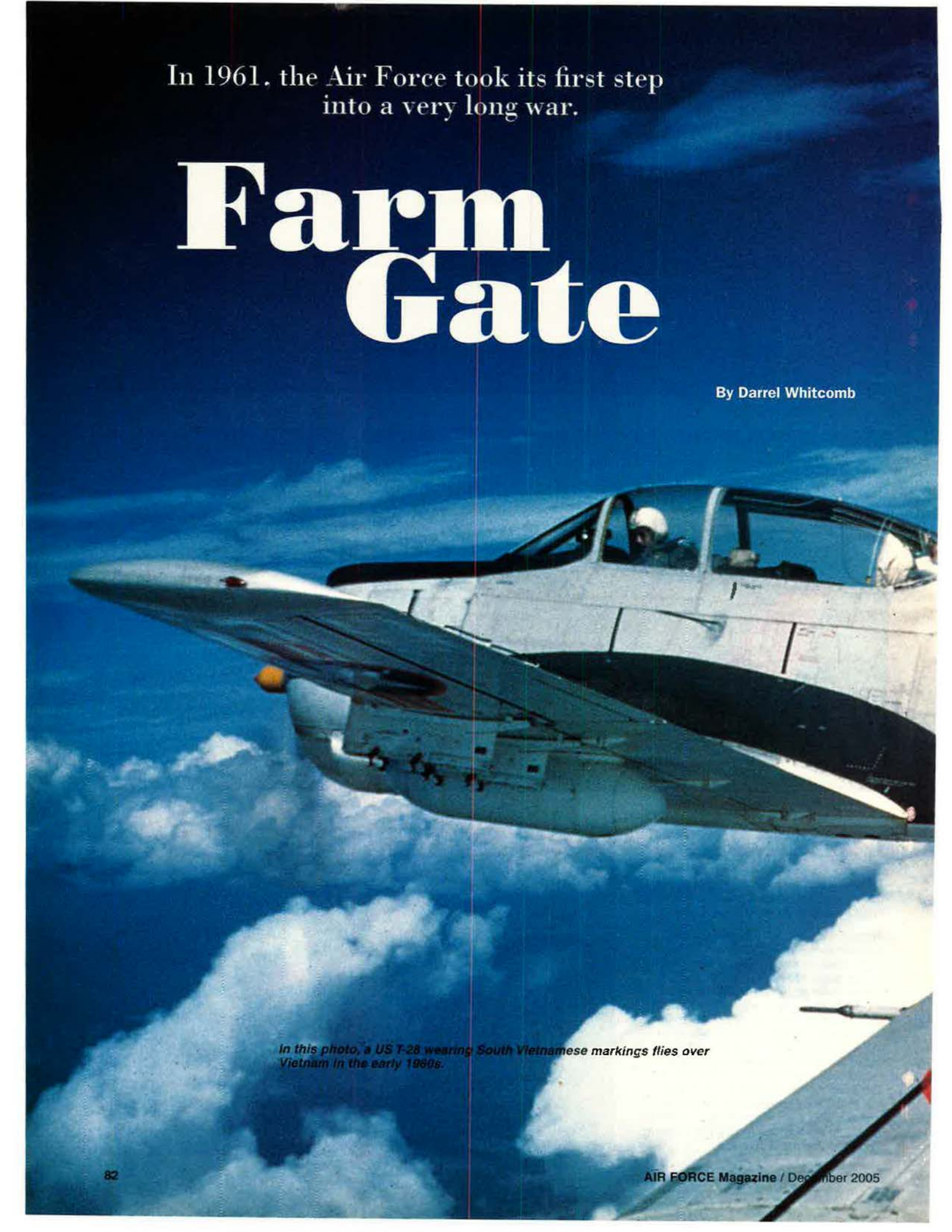


USAF photo by MSgt. John E. Lasky

In 1961, the Air Force took its first step  
into a very long war.

# Farm Gate

By Darrel Whitcomb

A photograph of a US T-28 aircraft in flight, viewed from a low angle. The aircraft is white with dark markings on the fuselage and wings. It is flying over a blue sky with white clouds. The aircraft's cockpit is visible, showing two pilots. The aircraft is angled upwards and to the left.

*In this photo, a US T-28 wearing South Vietnamese markings flies over Vietnam in the early 1960s.*

**I**n the long history of the Cold War, early 1961 stands out as a particularly tense moment. The Soviet shootdown of U-2 pilot Francis Gary Powers had taken place a few months earlier. In the divided city of Berlin, pressure was building. Then, on Jan. 6, 1961, Nikita Khrushchev gave a speech that truly inflamed the East-West political conflict.

The blustery Soviet premier declared Moscow's support for communists engaged in "wars of national liberation." Khrushchev said the Soviet Union would "help the peoples striving for their independence" through the overthrow of pro-Western governments in these brushfire wars. It was an open challenge to the West, and officials in Washington took it exactly that way.

Also listening carefully was President-elect John F. Kennedy, then only two weeks away from his Jan. 20 inauguration. Kennedy knew that the Soviet leader, though bombastic, often backed up his words with actions. He

also knew that Moscow already was supporting a communist insurgency in South Vietnam. The US had supplied economic and military aid to the South Vietnamese ever since the 1954 partition that produced two nations—North Vietnam and South Vietnam.

In reaction to what he saw as a major new Soviet provocation, Kennedy called for a review of the situation, and, in a few weeks, the government had completed its work. A report was written by USAF Brig. Gen. Edward G. Lansdale, an expert on counterinsurgency. The Lansdale report warned that South Vietnam was being overwhelmed in a guerilla war waged by an estimated 15,000 well-supplied Viet Cong irregulars.

Now alarmed, the new President signed off on National Security Action Memorandum (NSAM) No. 2. The memorandum directed the US military services to develop counterinsurgency forces capable of resisting the inroads

of such Soviet-backed guerrillas. In response to NSAM 2, Gen. Curtis E. LeMay, then Air Force vice chief of staff, directed officers at Tactical Air Command to form an elite unit able to conduct such missions.

### "Jungle Jim"

TAC officials on April 14, 1961, activated the 4400th Combat Crew Training Squadron (CCTS) at Hurlburt Field in the panhandle of Florida. The unit had a designated strength of 124 officers and 228 enlisted men and took the logistics code name "Jungle Jim," a moniker that rapidly became the nickname of the unit.

It would be a composite force of World



Photo via Warren Thompson



War II aircraft: 16 C-47 transports, eight B-26 bombers, and eight T-28 fighters. The declared mission of the unit would be to train indigenous air forces in counterinsurgency and conduct air operations. The unit would be commanded by Col. Benjamin H. King, a veteran of World War II and a recognized combat leader. He was handpicked by LeMay.

The new unit would be volunteer only. LeMay put out a notice to all commands: "You will request volunteers from the list of active duty officers, appended this notice, for assignment to Project Jungle Jim, temporary duty, which may include combat."

One listed officer, Lt. Col. Robert L. Gleason, was attending the Air War College at Maxwell AFB, Ala., when he was told to report to the base commander's office. The commander asked him a series of questions, cautioning him not to repeat them to anyone.

Two questions in particular grabbed his attention: Would you be willing to fly and fight in support of a friendly foreign nation in situations where you could not wear the US uniform, and would you be willing to fly and fight on behalf of the US government and to agree to do so knowing that your government might choose to deny that you are a member of the US military, or even associated with this nation, and thus might not be able to provide you with the protection normally given to a US citizen?

Gleason answered in the affirmative, but he was told nothing more.

A month or so later, he received orders assigning him immediately to the 4400th CCTS at Hurlburt. On arrival, Gleason found a few others who looked as puzzled as he was. King welcomed



*Farm Gate crews entered the Vietnam War with a secret mission, odd operating rules, and old aircraft. A Farm Gate T-28 is at top; above is a B-26. Both have South Vietnamese Air Force markings, similar to USAF roundels. Combat missions required a South Vietnamese national in the rear seat.*

them by saying, "All I can promise you are long hours and hard work in preparation for what lies ahead." They were told that they were to become a special operations forces unit and that they would be called "air commandos."

Later, a team arrived to conduct psychological evaluations designed to identify unstable personalities who might not be able to handle the rigors of the assignment. One pilot, Capt. Richard V. Secord, concluded that the Air Force only wanted "crazy guys." That was a good thing, he thought, and he was happy to see that he somehow fit the profile.

The unit also began training with Army Special Forces to work out airlift

and fire support procedures. Several missions were flown to Ft. Bragg, N.C., creating a strong bond between the two groups. Flight training for the T-28 and B-26 crews focused on air-to-ground gunnery. At the specific direction of King, the air commandos honed their skills for night operations.

The 4400th commandos were never told where they would be going. Most speculation focused (erroneously) on Cuba.

### Into Vietnam

As the military conditions in South Vietnam continued to deteriorate, Secretary of Defense Robert S. McNamara actively began to consider dispatching military forces to test the utility of counterinsurgency techniques in

Southeast Asia. In response, LeMay pointed out that the 4400th was operationally ready and could serve as an Air Force contingent for that force.

On Oct. 11, 1961, President Kennedy directed, in NSAM 104, that the Defense Secretary "introduce the Air Force 'Jungle Jim' Squadron into Vietnam for the initial purpose of training Vietnamese forces." The 4400th was to proceed as a training mission and not for combat at the present time.

And the mission was to be covert. The commandos were to maintain a low profile in-country and avoid the press. The aircraft were configured with South Vietnamese Air Force (VNAF) insignia, and all pilots wore plain flight suits



**Combat operations began at Bien Hoa Air Base, South Vietnam. The former French colonial facility was in poor condition by the time the US arrived in 1961. This 1964 photo shows the flight line, where the steel-plank runway needed constant repair.**

minus all insignia and name tags that could identify them as Americans. They also sanitized their wallets and did not carry Geneva Convention cards.

Such subterfuge was a necessity. In dispatching the air commandos to South Vietnam, the United States was violating the Geneva Accords of 1954 that established the two Vietnams. The American leadership wanted to be able to plausibly deny that it had military forces operating in the South.

The deployment package consisted of 155 airmen, eight T-28s, and four modified and redesignated SC-47s. The unit later received B-26s from a repair facility in Taiwan, where they were being rebuilt for the mission.

The unit would be officially titled Det. 2A of the 4400th CCTS, code named "Farm Gate."

On Nov. 5, 1961, the Farm Gate detachment at last departed Hurlburt for Southeast Asia. The four SC-47s flew to Clark Air Base in the Philippines. The eight T-28s flew to California where they were disassembled, packed on C-124s, and flown to Clark; after reassembly there, they and the SC-47s were flown to Saigon and then Bien Hoa Air Base 20 miles north of the capital. All of the initial aircraft were in place by the end of November. The B-26s arrived in late December after modifications in Taiwan.

The airmen of Farm Gate were not impressed with the Bien Hoa facility. Built by French forces, the old colonial airfield was in bad shape. It had one 5,800-foot steel-plank runway in

constant need of repair. The American presence at Bien Hoa was, of course, strictly hush-hush, and the airfield was off-limits to the press.

In those first weeks, the commandos belonged, administratively and operationally, to the Air Force section of the Military Assistance Advisory Group (MAAG) Vietnam. They would turn out to be the nucleus of an expanding Air Force and American presence in Vietnam.

### Headgear

While settling in at Bien Hoa, the Farm Gate troops noticed that some

Vietnamese soldiers were wearing "bush" hats similar to the traditional hats worn by Australian troops. Finding them superior in jungle conditions to the US-issued baseball caps, the Americans began to buy and wear their own bush hats. Even King had one.

Within days of arrival, the T-28s and pilots were ready for orientation flights. The Farm Gate pilots launched with VNAF escorts and delivered their ordnance, but, when mission reports were reviewed, the crews were told not to conduct independent air operations. The cover story was that the Americans were in-country to train South Vietnamese pilots.

On Dec. 26, 1961, Washington issued new regulations directing that all Farm Gate missions would include at least one South Vietnamese national onboard every aircraft. McNamara further amplified this requirement by stating that the Vietnamese would fly in the backseat position.

Training was a facade because, at least in the beginning, the South Vietnamese pilots did not need much training. Participants knew the backseat rider requirement was political, but, as the demand for VNAF pilots grew, the experienced ones returned to their own units and the replacements actually were unskilled. Many were cadets awaiting orders to flight school.

One SC-47 pilot, Capt. Bill Brown, recalled that his Vietnamese riders "never were allowed anywhere near the controls of the aircraft."



**Capt. John Cragin poses with a B-26 in this 1964 photo. In 1962, McNamara reluctantly ordered additional B-26, SC-47, T-28, and U-10 aircraft to Vietnam.**



enemy force by the light of the flares. The timely air strike broke the enemy's attack and drove those forces from the field. This became a successful tactic for nighttime operations, as the communist forces often disengaged at the mere sight of the flares.

A few weeks later, King returned to the United States and was replaced in command by Gleason. The unit was visited by the US Pacific Command commander, Adm. Harry D. Felt, who immediately noticed the distinctive Farm Gate headgear. He was not impressed. Felt made it clear that the bush hats had to go. Gleason saluted smartly but sent a back-channel message to Hurlburt concerning the admiral's wishes. Twenty-four hours later, he got an official message from Air Force headquarters

Americans, with Vietnamese aboard, were soon flying to destroy Viet Cong supply lines and forces. Flying from Bien Hoa and air bases being improved up-country at Da Nang and Pleiku, T-28 and B-26 operations emphasized "training" for reconnaissance, surveillance, interdiction, and close air support missions.

The SC-47s began flying airdrop and "psyop" leaflet and loudspeaker broadcast missions to forward bases where the Army's Special Forces teams were working with the rapidly growing South Vietnamese Civilian Irregular Defense Group.

### Command Confusion

Command and control of Farm Gate became confused in early 1962, when all Air Force units in Vietnam were reorganized under 2nd Advanced Echelon (2nd ADVON) of 13th Air Force, which had been activated the previous November. The assigned mission was to conduct "sustained offensive, defensive, and reconnaissance air operations aimed at the destruction or neutralization of Viet Cong forces, resources, and communications within the borders of South Vietnam."

Accordingly, the 2nd ADVON detachment commander at Bien Hoa tried to take operational control of the Farm Gate group. King said this violated the guidance that LeMay had issued when he set up the unit.

When King tried to resolve the operational control issue at the new 2nd ADVON, he was told by the operations officer that, under their plan, the Farm Gate aircrews would probably not be able to fly daytime combat sorties. King,



*Farm Gate's SC-47s conducted "psyop" leaflet and loudspeaker missions. The T-28 and B-26 operations focused on reconnaissance, surveillance, interdiction, and close air support. In the above photos from 1962, a B-26 performs a low-level strike.*

however, was not going to allow anyone to prevent his unit from engaging in combat operations.

At the time, the VNAF only had one squadron that could perform air strikes, and it was not properly equipped for night flying. King, however, had trained his men for night operations. He directed his weapons officer, Capt. John L. Piotrowski, to obtain some flares. (Piotrowski later rose to four-star rank and served as Air Force vice chief of staff and commander of NORAD and US Space Command.) Maintenance troops then rigged one of the SC-47s to drop the flares and validated the tactics.

Later, a South Vietnamese outpost came under night attack. An SC-47 and two T-28s took off and struck the

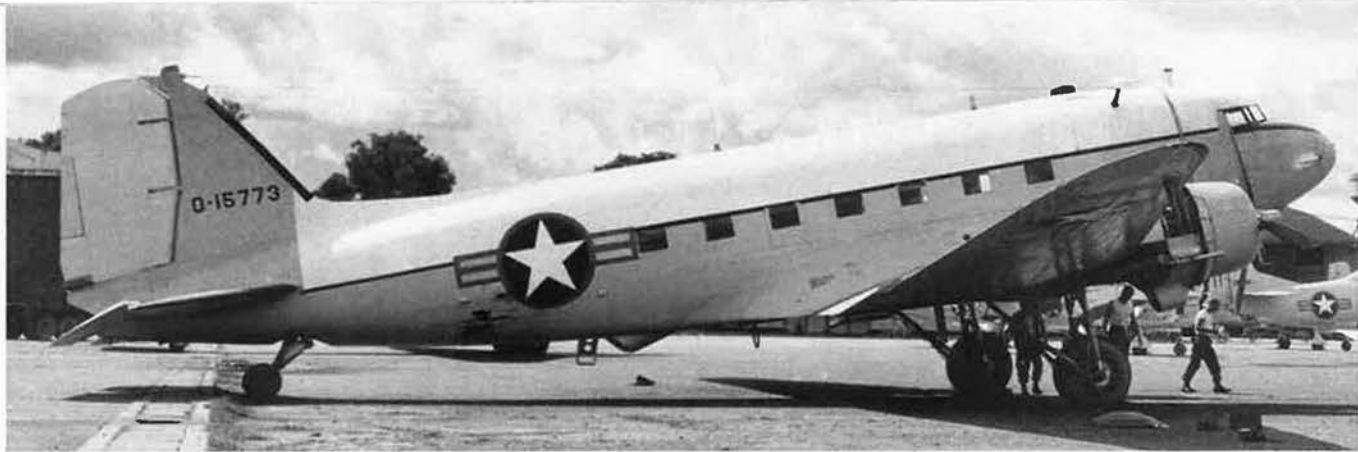
saying that the hats had been designated official headgear for the members of the unit. It was signed by LeMay.

### First Loss

In February 1962, a Farm Gate SC-47 on a leaflet drop mission in the highlands near Bao Loc was shot down, killing the six airmen, two soldiers, and one Vietnamese crewman on board. This was the first of several Farm Gate losses.

As additional Air Force units were sent to Vietnam, 2nd ADVON was deactivated and replaced by 2nd Air Division of 13th Air Force. Parallel to the growth of Air Force units in South Vietnam, the VNAF also was expanding. More pilots were needed, and the cadets flying in the backseats were sent off to flight school. To continue the backseat





**This SC-47 was part of the initial deployment to Bien Hoa, and—like the T-28 at far right—was repainted in VNAF colors. The transport was even given a new tail code: The O-15773 replaced USAF's designation of 43-15773.**

subterfuge, however, many South Vietnamese noncommissioned officers were rounded up and forced to fly.

Enemy attacks were increasing across the countryside, and there were rising calls for air support to embattled ground troops. Forward operating locations were opened at Qui Nhon and Soc Trang. Commanders at 2nd Air Division could see that the South Vietnamese Air Force could not meet all needs, and they increasingly turned to Farm Gate crews to fly the sorties.

Realizing that he needed more assets, the commander of 2nd Air Division, Brig. Gen. Rollen H. Anthis, asked for additional Air Force personnel and aircraft for Farm Gate use. Anthis wanted 10 more B-26s, five more T-28s, and two more SC-47s. McNamara reviewed the request, but he was cool to the idea of expanding Farm Gate units for combat use. His goal was to build up the VNAF so it could operate without American help. Still, McNamara approved the request for additional aircraft and also assigned two U-10s to Farm Gate.

Shortly thereafter, McNamara directed the commanders in Vietnam to develop a national campaign plan to defeat the Viet Cong. The plan, finished in March 1963, called for a much larger VNAF. The South Vietnamese Air Force was to increase its force structure by two fighter squadrons, one reconnaissance squadron, several squadrons of forward air controllers, and several more cargo squadrons.

The year 1963, however, had started ominously with a serious defeat of South Vietnamese troops at the village of Ap Bac in the Mekong Delta. Civilian and military leaders realized the Vietnamese were not ready to fight on their own.

The war continued to spread as enemy forces grew. By June 1963,

the United States Air Force presence in Vietnam had grown to almost 5,000 airmen. As the buildup continued, USAF directed the activation of a new outfit—the 1st Air Commando Squadron—at Bien Hoa. To preclude the need for an increase in personnel, it would absorb the Farm Gate men and equipment. The airmen began to prepare for the reorganization. But the missions continued, and on July 20, an SC-47 crew flew an emergency night mission to Loc Ninh and, disregarding enemy fire, strong winds, and blacked-out conditions, landed and rescued six severely wounded South Vietnamese troops. (The SC-47 crew would receive the Mackay Trophy for the most meritorious air mission of 1963.) Eight days after the Loc Ninh mission, the 1st Air Commando Squadron was activated and Farm Gate was subsumed.

The term “Farm Gate,” however, remained in use a while longer for certain logistics pipelines. Eventually, it was replaced by other code names as the war effort continued to expand and diversify. “Things just got bigger,” one crew chief later explained. “It wasn’t Farm Gate anymore. It was war.”

US forces certainly were engaged in combat. However, even after the 1st Air Commando Squadron took over Farm Gate, the public legal status of the operation was ambiguous. According to the then-commander of Pacific Command, Adm. Ulysses S. Grant Sharp, US forces as late as July 1964 were still officially carrying out “an advisory mission, and our personnel were not participating in military

action at [that] point.” That fiction would disappear with the passage of the Gulf of Tonkin Resolution in August 1964.

Between October 1961 and July 1963, 16 Farm Gate air commandos were killed. Also lost were one SC-47, four T-28s, one U-10, and four B-26s.

Within a year of its establishment, 1st Air Commando Squadron had shed its B-26s and SC-47s and grounded some of its T-28s after two more went down due to catastrophic wing failures. According to retired Lt. Col. W. Dean Hunter, a pilot who flew T-28s throughout this period, the T-28 section lost a total of 36 pilots in the war. Some pilots were awarded medals for heroism—from the Air Force Cross to Silver Stars.

The unit was re-equipped with AD-6s, later renamed A-1s. It would continue to fly combat operations until its final mission on Nov. 7, 1972, over northern Laos.

Farm Gate can now be seen for what it really was: the first step in a very long war. One can fix the exact date of its start. In a real sense, however, it had no precise end date. Farm Gate simply was absorbed into the larger US war effort. The parent unit, the 4400th Combat Crew Training Squadron, was deactivated in 1969. During the course of its official life, however, the outfit spawned 11 different squadrons, several wings and groups, and the Special Air Warfare Center, which inherited the original Jungle Jim mission.

Indeed, Air Force Special Operations Command today traces much of its lineage to Farm Gate. It is the heritage of the air commandos. ■

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*Darrell Whitcomb is a career aviator and freelance historical writer. He served three tours in Southeast Asia plus a short tour in Iraq and is the author of *The Rescue of Bat 21* and *Combat Search and Rescue in Desert Storm*. This is his first article for *Air Force Magazine*.*

By Frances McKenney, Assistant Managing Editor

## Convention in the Midwest

Air Force Association Chairman of the Board Stephen P. "Pat" Condon headed to Offutt AFB, Neb., in August for the AFA Midwest Region Convention. He gave an update on *afa21*, the association's reorganization effort, to more than 50 representatives from chapters in Illinois, Iowa, Kansas, Missouri, and Nebraska.

To welcome convention delegates, the **Ak-Sar-Ben Chapter (Neb.)** sponsored a golf tournament on Friday at the Willow Lakes golf course, located in Offutt's Capehart Housing area. The event raised more than \$10,000 for aerospace education, said William Ernst, Nebraska state president.

Judy K. Church, Midwest Region president and a **Harry S. Truman Chapter (Mo.)** member, was moderator for the next day's convention activities.

Then-Brig. Gen. John C. Koziol, at the time commander of Offutt's 55th Wing, spoke during the morning business session. He described the wing's reconnaissance and intelligence missions and its role at the forefront of the Global War on Terrorism. Luncheon keynote speaker was Lt. Gen. C. Robert Kehler, US Strategic Command's deputy commander. His remarks covered STRATCOM's role in national policies and strategy.

Following an afternoon of workshops, the convention-goers held a banquet that evening at the Offutt Club.

## Colorado State Convention

The **Lance P. Sijan Chapter** hosted the Colorado State Convention in Colorado Springs in August, with AFA National President Robert E. "Bob" Largent and Charles P. Zimkas Jr., then Rocky Mountain Region president, as the main speakers.

Gen. Lance W. Lord, head of Air Force Space Command, was among the special guests at the Friday evening awards banquet, where nearly 50 state and chapter members and 36 Air Force and civilian nominees and recipients received honors.

The Operational Excellence Awards went to 1st Lt. Jason T. Waldman, 45th



*Air Force Association Chairman of the Board Pat Condon (far left) and his wife, Judy, golfed with Brig. Gen. John Koziol (second from right), 55th Wing commander, and Michael Cook, Ak-Sar-Ben Chapter president, at a tournament that opened the Midwest Region Convention at Offutt AFB, Neb. See "Convention in the Midwest," this page.*

Operations Support Squadron, Patrick AFB, Fla., and SSgt. Derrick P. Russell, 2nd Range Operations Squadron, Vandenberg AFB, Calif. SSgt. Jaimee Dean, 76th Space Control Squadron, Peterson AFB, Colo., was named AFA Airman of the Year.

The **Mel Harmon Chapter**, which had 159 members as of June 30, took home the Chapter of the Year award. Tom Cavalli of the Sijan Chapter was named Colorado AFA Member of the Year.

During the convention's business session, Joan Sell of the Sijan Chapter was elected Colorado state president.

## Getting It Right

After hearing an update on the Joint Strike Fighter, David R. Cummock of the **Brig. Gen. James R. McCarthy Chapter (Fla.)** commented, "Industry may have gotten it right."

James M. Grant, the F-35 program's senior director of business development at Lockheed Martin, presented information on the JSF at the chapter's September luncheon meeting. Grant told the audience that the first production-

standard F-35, now being assembled at Lockheed Martin Fort Worth, Tex., will fly next year.

More than 80 guests turned out for the briefing on the JSF, including local staffers from the offices of US Reps. John Mica (R-Fla.) and Tom Feeney (R-Fla.).

The meeting also was the annual awards banquet. Robert Perry, chapter secretary, was named Chapter Member of the Year. Martin Ingoldsby, a sixth-grade teacher at Creekside Middle School in Port Orange, Fla., received the Chapter Teacher of the Year honor, and his fellow faculty member, Rebecca Erdelyan, received an AFA Florida Special Citation. The chapter named Dana B. Thompson, Keith E. Phillips, and Robert A. Terry as AEF Doclittle Fellows.

## Trusted Wingman

AFA is the Air Force's most trusted wingman, Lt. Gen. Stephen G. Wood told the audience at the **Donald W. Steele Sr. Memorial Chapter (Va.)** luncheon in August.

More than 100 chapter members

and industry representatives listened to the USAF deputy chief of staff for plans and programs, as he spoke about recapitalization of the force, unmanned aerial systems missions for the Guard and Reserve, the restructuring of the Air Force's warfighting headquarters, and the Quadrennial Defense Review.

Wood joined Chapter President George DeFilippi and Sean Ryan, chairman of the chapter's scholarship committee, in presenting awards at this

quarterly membership meeting. William C. Van Evera, a science teacher at H-B Woodlawn High School in Arlington, Va., received the chapter's Teacher of the Year award. Eight active duty personnel and civilians—selected from more than 80 applicants—were named as chapter scholarship recipients.

Ryan's scholarship committee raised funds primarily through two chapter golf tournaments this year, the latest one attracting 120 golfers to Andrews AFB,

Md., in September. Ryan estimated that the two tournaments raised \$15,000 for next year's scholars.


#### More AFA/AEF News

■ The **Alamo Chapter (Tex.)** joined the 37th Training Wing in hosting the annual Air Force Birthday Ball on Sept. 17 at Lackland AFB, Tex. Gen. William R. Looney III, commander of Air Education and Training Command at Randolph AFB, Tex., was keynote speaker. A sell-out crowd of more than 300 guests and corporate sponsors helped the chapter raise more than \$18,000 for the newly created Alamo AFA Aerospace Education Foundation, said Kaye H. Biggar, the organization's president. The donations fund the chapter's scholarship and educational outreach programs.

■ US Rep. Thelma D. Drake (R-Va.) was guest speaker for the September meeting of the **Tidewater Chapter (Va.)**. A first-termer and member of the House Armed Services Committee, Drake talked about base realignment and closure actions regarding Ft. Monroe—targeted for shutdown—and NAS Oceana, under consideration for realignment. She also told the chapter members about her orientation tour to Langley AFB, Va., and how impressed she was with the F/A-22. During the chapter meeting, the president of the Chesapeake Museum, Raymond L. Harper, presented Chapter President Allan G. Berg with a scale model of a Boeing 747-400. The chapter distributes such models to the six AFJROTC units in the area, said William M. Cuthriell, chapter aerospace education VP.

■ "There will be a test." When the **Central Florida Chapter** aerospace education VP addressed a group of Civil Air Patrol cadets in Orlando in October, he announced that he would test them afterward about his speech. Richard A. Ortega then spoke about AFA and AEF, including the two organizations' missions and benefits of membership. He described the AFA awards the CAP cadets could earn, as well as the AEF CAP Aerospace Educator Grant and the AEF CAP Unit Grant. He distributed handouts and AFA membership applications. Then he conducted a quiz, asking the cadets to state AFA's mission. CAP cadet Michael B. Stone aced the exam, and Ortega rewarded him with a new \$2 bill. The chapter also recently donated \$1,500 to the CAP group.

■ It was the other group's turn. The **Pasadena Area Chapter (Calif.)** regularly holds joint meetings with the local

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The Air Force Association works closely with lawmakers on Capitol Hill, bringing to their attention issues of importance to the Air Force and its people.

### Air Force Caucus Visits Iraq

Rep. Sam **Johnson** (R-Tex.) and Rep. Cliff **Stearns** (R-Fla.), co-founders and co-chairmen of the Air Force Caucus, recently wrote to AFA, describing an information-gathering trip that they made with several members of this Congressional group to Iraq, Kuwait, Qatar, and Britain. "The purpose was to observe ongoing Air Force operations in support of the war on terrorism and to receive briefings," they stated.

At Balad AB, Iraq, they learned that airmen carry out police and training duties, perimeter security, convoy security, and prisoner guard duty.

"The Air Force is conducting tasks outside of its traditional responsibilities—and without reimbursement," the two Congressmen wrote. "We want more people in Washington to know about this."

By talking to troops in theater and through information briefings, they learned that airmen "need more and better equipment," backed by "a good supply" of spare parts. "This is a funding issue that the Air Force Caucus will raise in Congress," said Johnson, a former AFA national director, and Stearns, who is a House Veterans Affairs' Committee member and a current AFA national director.

For background on the Air Force Caucus and a list of its members, see [afa.org/grl/caucus.asp](http://afa.org/grl/caucus.asp).

### Briefing on Capitol Hill

The Air Force Caucus and AFA sponsored a briefing by USAF Deputy Chief of Staff for Personnel Lt. Gen. Roger A. **Brady** on the Interim Guidelines Concerning Free Exercise of Religion in the Air Force. Brady presented information on steps taken by the Air Force, so

far, to evaluate concerns and to develop corrective actions at all levels.

Caucus members at the briefing included co-chairmen Reps. Cliff **Stearns** (R-Fla.) and Sam **Johnson** (R-Tex.). Also attending: Reps. Thelma D. **Drake** (R-Va.), Robin **Hayes** (R-N.C.), Dave **Weldon** (R-Fla.), Randy **Neugebauer** (R-Tex.), Trent **Franks** (R-Ariz.), Walter **Jones Jr.** (R-N.C.), Michael **Turner** (R-Ohio), and John N. **Hostettler** (R-Ind.).

### AFA Backs a Second Chance

AFA Chairman of the Board Pat Condon met with Justin **Kitsch**, communications director for Rep. Peter J. **Visclosky** (D-Ind.), to discuss the introduction of Visclosky's bill, HR 3195, the Montgomery GI Bill Second Chance Act of 2005. It would fix an unfair provision that provides only one opportunity for military personnel to receive educational benefits. AFA has long sought correction of this inequity,

and it is among AFA's Top Issues for 2006.

### Capitol Hill Visits

Following up on a recent trip to Arkansas, AFA National President Bob Largent met with Rep. John **Boozman** (R-Ark.) and Rep. Vic **Snyder** (D-Ark.). Largent discussed the value of joining the Congressional Air Force Caucus. He spoke about the need to fully fund the Department of Veterans Affairs and the impact of potential DOD funding cuts on the lawmakers' districts.

AFA's Government Relations staff met with Jessica **Carter**, chief of staff to Rep. Richard **Pombo** (R-Calif.), and Military Legislative Assistant Aaron **Cutler**. Pombo wants to establish a veterans council in his district and asked military and veterans organizations to identify candidates and issues.



Air Force Caucus members (l-r) Reps. Michael **Bilirakis** (R-Fla.), Cliff **Stearns** (R-Fla.), Sam **Johnson** (R-Tex.), Steve **Pearce** (R-N.M.), and David **Wu** (D-Ore.), pose with airmen at Camp Stryker, at Baghdad Airport, during a visit to Southwest Asia in September. Stearns is an AFA national director; Johnson is a former AFA national director.

Reserve Officers Association group, wrote Martin W. Ledwitz, Pasadena Chapter council member. He noted that this allows the AFAers to "network with our friends from all of the military services." In October, it was the ROA chapter's turn to arrange for a guest speaker. They invited retired Army Col. Alfred M. Diaz, the national treasurer for the Washington, D.C.-based association, who spoke about ROA's state and national activities.

**Billie E. Thompson (1931-2005)**

Former Michigan State President Billie E. Thompson died Sept. 18 in Alpena, Mich. She was 73. Born on Nov. 9, 1931, in Buffalo, Tex., Ms. Thompson graduated from Hagerman (N.M.) High School and later became a volunteer for many organizations in Alpena. She was a member of the **Lloyd R. Leavitt Jr. Chapter (Mich.)** and had been its president before serving as Michigan state president in 2003-04. ■



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<b>Income Tax Savings</b> (Assume 34% rate)	(\$3,400)	(\$3,400)
<b>Cost of Gift to You</b>	\$6,600	\$5,400

**PLEASE NOTE:** These examples are for illustrative purposes only and are not intended as legal or tax advice. Consult your own legal and tax advisors before making any material decisions based on this data.



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I certify that all information furnished on this form is true and complete. I understand that anyone who furnished false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including multiple damages and civil penalties).



At the chapter's annual awards banquet, Ute-Rocky Mountain Chapter President Rick Hartle presents a donation to Command CMSgt. Franklin Smith, 75th Air Base Wing, Hill AFB, Utah, for Operation Warmheart. The project assists enlisted families.

# Reunions

reunions@afa.org

**623rd AC&W Assn**, including the 624th and 851st Sqs, 529th Gp, 305th Fighter Cont. Sq., 313th ADIV, 51st FIW, and 2152nd Comm Sq. March 26-31, 2006, in Biloxi, MS. **Contact:** David Cory, 10408 Wedd, Overland Park, KS 66212 (913-888-4874) (dbcory@earthlink.net).

**Pilot Training Class 55-B**. April 27-29, 2006, in Dayton, OH. **Contact:** Dale Peckman, 1970 Thomas Dr., McKeesport, PA 15131 (412-751-7102) (pherkybird@aol.com).

**World War II bombardiers**. May 3-7, 2006, in Branson, MO. **Contact:** Bob Thompson, 280 Sharon Dr., Pittsburgh, PA 15221 (412-351-0483).

Seeking members of the **108th BS**, ANG (1951-52), for a reunion in Chicago. **Contact:** Richard Terlecki, 1725 35th St., #2228 Mayslake Villa, Oakbrook, IL 60523.

Seeking all who served in the **3595th Combat Crew Training Wg**, Nellis AFB, Nev. (1950s), including the 3592nd, 3593rd, and 3597th Field Maintenance Sqs., for a reunion. **Contact:** Hal Fulton, 2833 Mara Loma Cir., Wooster, OH 44691 (fasu@aol.com).

Seeking those who served at **Galena AFS, Alaska**, for a reunion. **Contact:** Jon Jehl, 5861 3rd Cove #7, Memphis, TN 38134 (901-385-7567).

Seeking members of **Pilot Training Class 43-I** for a reunion in October 2006. **Contact:** Bill Kraham (301-926-8486) (bill.kraham@gmail.com).

Seeking members of **Pilot Training Class 56-S** for a reunion. **Contact:** Allan Tomlinson, 7520 Glen Albens Cir., Dallas, TX 75225 (214-696-4233) (atomconsult@webtv.net).

Seeking members of **Pilot Training Class 57-M** for a reunion in 2007. **Contacts:** Wendell Brumley (801-593-2655) (wbrum93990@aol.com) or Dan Barry (360-698-0602) (danbarry@wavecable.com).

### Have AFA/AEF News?

Contributions to "AFA/AEF National Report" should be sent to *Air Force Magazine*, 1501 Lee Highway, Arlington, VA 22209-1198. Phone: (703) 247-5828. Fax: (703) 247-5855. E-mail: afa-aeef@afa.org. Digital images submitted for consideration should have a minimum pixel count of 900 by 1,500 pixels.

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# Books

Compiled by Chequita Wood, Editorial Associate

**The 3rd Greatest Fighter Pilot.** Col. William T. Creech, USAF (Ret.). AuthorHouse, Bloomington, IN (800-839-8640). 205 pages. \$20.00.



**F-16 Fighting Falcon in Action: Aircraft No. 196.** Lou Drendel. Squadron/Signal Publications, Carrollton, TX (800-527-7427). 49 pages. \$11.95.



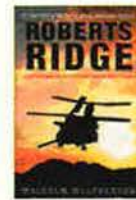
**Prisoners of War: The American Experience.** Vance R. Skarstedt, ed. Imprint Publications, Chicago (800-619-3059). 149 pages. \$22.95.



**A War of Their Own: Bombers Over the Southwest Pacific.** Capt. Mathew K. Rodman, USAF. Air University Press, Maxwell AFB, AL (334-953-6281). 164 pages. \$14.00. (Download at <http://aupress.maxwell.af.mil/Books/Rodman/rodman.pdf>).



**Flying Dragons: The South Vietnamese Air Force.** Robert C. Mikesch. Schiffer Publishing, Ltd., Atglen, PA (610-593-1777). 224 pages. \$49.95.



**Roberts Ridge: A Story of Courage and Sacrifice on Takur Ghar Mountain, Afghanistan.** Malcolm MacPherson. Delacorte Press, New York (800-733-3000). 338 pages. \$25.00.

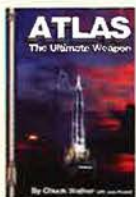
**Aircraft Recognition Guide.** 4th ed. Gunter Endres and Michael J. Gething. Collins Reference, New York (212-207-7000). 528 pages. \$24.95.



**Forever a Soldier: Unforgettable Stories of Wartime Service.** Tom Wiener. National Geographic Society, Washington, D.C. (800-647-5463). 330 pages. \$26.00.



**Sepecat Jaguar In Action: Aircraft No. 197.** Glenn Ashley. Squadron/Signal Publications, Carrollton, TX (800-527-7427). 49 pages. \$11.95.



**Atlas: The Ultimate Weapon.** Chuck Walker with Joel Powell. Apogee Books, Wheaton, IL (630-637-6296). 308 pages. \$29.95.

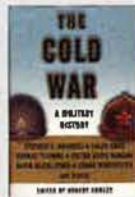


**Forging the Shield: Eisenhower and National Security for the 21st Century.** Dennis E. Showalter, ed. Imprint Publications, Chicago (800-619-3059). 235 pages. \$24.95.



**Shock and Awe: Aircraft, Nose Art, & Mission Marks of Operation Enduring/Iraqi Freedom.** Greg L. Davis. Order from: Two-bobs Aviation Graphics, California City, CA (661-209-9706). 160 pages. \$34.95.

**The Cold War: A Military History.** Robert Cowley, ed. Random House, New York (800-733-3000). 478 Pages. \$27.95.



**Fortress America: On the Front Lines of Homeland Security.** Matthew Brzezinski. Bantam Dell Publishing, New York (800-733-3000). 244 pages. \$14.00.



**Spitfires and Yellow Tail Mustangs: The 52nd Fighter Group in World War Two.** Tom Ivie and Paul Ludwig. Specialty Press Publishers and Wholesalers, North Branch, MN (800-895-4585). 176 pages. \$53.95.



**Duty, Honor, Country.** Col. George E. Day, USAF (Ret.). Order from: American Hero Inc., 32 Beal Parkway S.W., Fort Walton Beach, FL 32548-5391 (850-243-1234). 354 pages. \$40.00.



**New Heavens: My Life as a Fighter Pilot and a Founder of the Israel Air Force.** Boris Senior. Potomac Books, Dulles, VA (800-772-2518). 256 pages. \$25.95.



**Warriors and Scholars: A Modern War Reader.** Peter B. Lane and Ronald E. Marcello, eds. University of North Texas Press, Denton, TX (800-826-8911). 288 pages. \$24.95.

# Pieces of History

Photography by Paul Kennedy

## From the Lithograph



The items in this photo were prepared and printed by USAF's lithographic pressmen, a career field that no longer exists in today's Air Force. These troops printed everything from office materials to propaganda leaflets dropped in the Korean War. The selection here comes from the 1940s, 1950s, and 1960s and includes not only those leaflets but also flight maps, banquet programs, base newspapers, technical

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