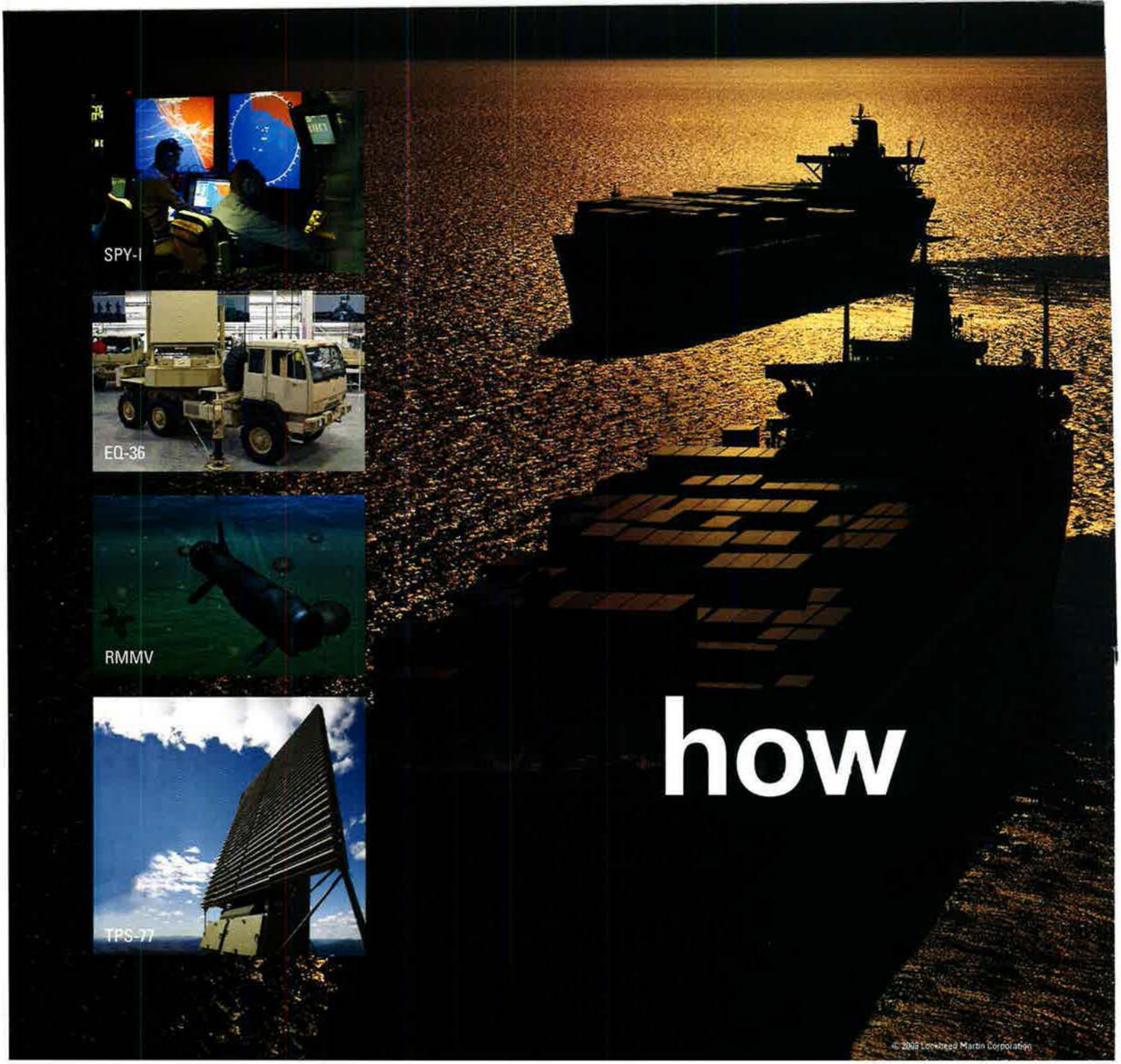
November 2009/$4

AIR FORCE MAGAZINE

JOURNAL OF THE AIR FORCE ASSOCIATION

The "Balanced" Air Force

JSTARS Wars
Combat Search and Rescue
AFA Technology Exposition



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November 2009, Vol. 92, No. 11

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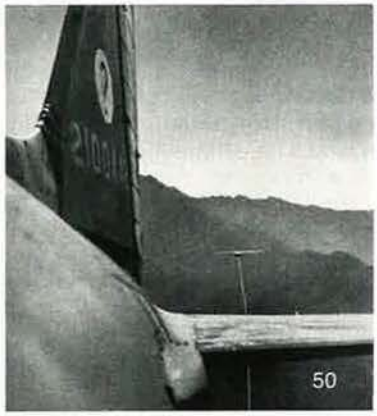

About the cover: A Raptor soars over Andersen AFB, Guam. USAF photo by MSgt. Kevin J. Gruenwald. See "The 'Balanced' Air Force," p. 28.

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Editorial

By Robert S. Dudney, Editor in Chief

The Real B-2 Mistakes

DEFENSE Secretary Robert M. Gates, addressing an Air Force Association audience on Sept. 16, announced he was "committed" to acquiring a new long-range strike system for the nation. However, he admonished the crowd, "we must not ... repeat what happened with our last manned bomber."

Gates was referring, of course, to USAF's B-2 stealth program of the 1980s and 1990s. "By the time the research, development, and requirements processes ran their course," he said, "the aircraft ... turned out to be so expensive—$2 billion each—that less than one-sixth of the planned fleet of 132 was ever built." It makes "little sense," he said, to pursue a prospective B-3 bomber in the same fashion.

With all due respect to Mr. Gates, that is not the way the B-2 saga actually unfolded 20 years ago, and it is not a proper guide for shaping a B-3 program or any other kind of aircraft effort. President George H. W. Bush reluctantly closed down the B-2 under intense Congressional pressure. In that, one can find lots of mistakes not to repeat, but they aren't as Gates describes them.

Now that the Pentagon chief has made an issue of it, it is worth remembering what happened a generation ago. Three main points stand out.

First, Mr. Gates has the cost issue exactly backward. The small production run was not caused mainly by the high cost of each B-2 bomber. Rather, it was the political decision to limit B-2 production to small numbers that led to high per-aircraft costs.

In the original 1981 B-2 plan, USAF proposed to acquire 132 B-2s. Secretary of Defense Dick Cheney, facing Congressional opposition in 1990, cut the number to 75. That step lowered the total B-2 cost from $75.4 billion to $61.1 billion, but it raised the per-aircraft cost from $571 million to $815 million.

"Eight hundred million dollars a copy raises immense problems for me," sniffed Sen. Carl Levin (D-Mich.), even though B-2 spending, on average, fell to about one percent of DOD budgets.

In 1992, the B-2 program was slashed again, this time to 20 aircraft. (One more B-2 was approved later, bringing the total to 21.) The new and lower $44 billion program cost was spread over a mere 21 aircraft. That's how each B-2 wound up "costing" more than $2 billion apiece.

Second, the B-2's cost was not the only, or even the most important, reason for the demise of the program. The B-2 ran into trouble in the late 1980s and early 1990s mainly because the 40-year-old Cold War went into a massive and terminal thaw.

The B-2 made its first flight in July 1989. Four months later, the Berlin Wall fell and the Warsaw Pact collapsed. This development eliminated East European targets from the strategic target set which the B-2 was designed to cover. The lessening of superpower tensions, combined with massive federal deficits, put further downward pressure on Pentagon spending, forcing Bush into the first of the B-2 cuts.

In the B-2 program, one can find lots of mistakes not to repeat, but they aren't as Robert Gates described them.

The failure of the August 1991 hardline coup in the Soviet Union (followed closely by dissolution of the USSR) weakened the remaining rationale for large numbers of B-2s. "Who is t going to bomb?" sneered Sen. Edward Kennedy (D-Mass.). In January 1992, Bush halted the program.

Third, many defense experts continued to call for more B-2 production, even after the program was halted.

In January 1995, seven former Pentagon chiefs wrote to President Clinton, advising him to purchase more B-2s. Signing the letter were Melvin Laird, James Schlesinger, Donald Rumsfeld, Harold Brown, Caspar Weinberger, Frank Carlucci, and even Cheney. The B-2, they said, "remains the most cost-effective means of rapidly projecting force over great distances."

In 1997, former Bush National Security Advisor Brent Scowcroft advised Congress to buy more. He said a fleet of only 21 B-2s wasn't enough to meet US requirements, and that DOD and service opposition to production was "shortsighted and parochial."

Even so, Congress and the Pentagon rebuffed all calls for additional B-2 bombers. No proposal ever gained support from the Air Force, which faced severe budget woes. Political pressure on the service was also great.

For all of these reasons, Air Force officials decided USAF would be better off waiting to deal with the bomber issue. It recommended scheduling the next mission area assessment for 2013, though that assessment has been moved up several years.

Funds for initial work on a "next generation bomber" program are still included in this year's defense authorization bill. The Center for Strategic and Budgetary Assessments, in a recent study, proposed shooting for a B-3 bomber force of 130 aircraft, entailing a development cost of $16 billion and a per-aircraft flyaway cost of $425 million. It would be extremely stealthy, capable of manned and unmanned flight.

As USAF gears up, however, Gates has laid down his marker. "Whatever system is chosen to meet this requirement—be it manned, unmanned, or some combination of the two—it should be one that can realistically be produced and deployed in the numbers originally envisioned," said Gates.

This has produced something of a quandary. On one hand, his twisted history of the B-2 could generate public apprehension that a new program could wind up producing $2 billion bombers. On the other hand, he is setting up what looks to be unrealistic expectations about the low cost of a new long-range strike aircraft.

We agree that the US should stick with the program, whatever it turns out to be. The reality, however, is that high-quality weapons don't come cheap.

Speaking to shareholders in May 1990, Kent Kresa, Northrop president, noted what should have been obvious: "A 350,000-pound aircraft with a 172-foot wingspan that is virtually impossible to detect and identify and track and then defend against, and is also more efficient than anything that has preceded it, is not going to be inexpensive."

This was true of Kresa's B-2. The same will be true of the next bomber. Yet to be seen is whether Washington will stick with the effort when the going gets tough, as it surely will. ■

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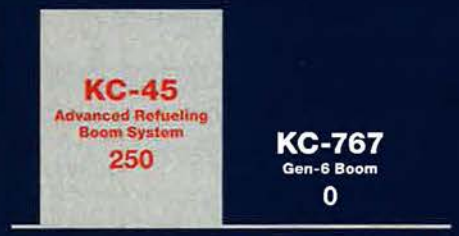

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The Heavyweight Raptor

In his editorial "Requiem for a Heavyweight" (September, p. 2), Editor in Chief Robert S. Dudney borrows his title from the 1956 play, but his theme is from Shakespeare's "Julius Caesar," specifically Mark Antony's speech with the famous line, "I come to bury Caesar, not to praise him." In that same speech, he goes on to call Caesar's assassins "honourable men"—repeated in increasingly sarcastic tones that soon turn the crowd against the conspirators themselves.

"Completion" of the F-22 program in favor of a much larger F-35 program was no sudden decision, as *Air Force* Magazine articles have documented over the past six months. The "honourable men" opposing further F-22 production have included the defense community's highest officials, plus members of our most influential mainstream media. Specifically:

The President called the F-22 "an inexcusable waste of money" while the US was "fighting two wars and facing a serious deficit," and had threatened to veto any defense bill that included more of them. (After some turmoil in both chambers, the Congress' response to the Administration's ultimatum was to yield, as reported in September's editorial.)

The Secretary of Defense deserves a "mention in despatches" for his masterly "preparation of the (political) battlefield." He co-opted the F-22's prime contractor, Lockheed Martin, [with] a "carrot-and-stick" offer: Cease lobbying for more F-22s and its much larger F-35 program may be accelerated; otherwise, [Lockheed Martin] may bear the consequences. He dismissed the F-22's original requirement as obsolete, its capabilities as both irrelevant for our current wars in Iraq and Afghanistan, and excessive for any near-term threat—thus framing the issue as one of "acquisition reform" and politics and price over combat performance and pre-eminence.

Both the *New York Times* and the *Washington Post* published "hair on fire" editorials, but the most egregious article was the *Post's* July 10 "Premier US Fighter Jet Has Major Shortcomings," which combined outdated data and misleading impressions (by mostly anonymous sources) with a few simplified rebuttal quotes—presumably for "balance." An AFA fact sheet, "F-22 Assertions and Facts," updated and corrected the article's (and others') more outrageous claims, but the *Post* printed neither corrections nor any letters from its readership.

Thus, if past is prologue, the US will end up with fewer F-35s than planned, acquired at a slower rate, and costing significantly more apiece—just like the F-22. Also, the F-35's "low end" combat performance envelope (in terms of speed and altitude capabilities) will remain well below that of the (now fewer) "high end" F-22's, even as threats increase over its lifetime.

Col. Jonathan Myer,
USAF (Ret.)
Alexandria, Va.

The purpose of our defense spending since World War II has been to spend enough, smartly, on military equipment, so we don't need to use it in a war. We spend to stay out of war.

The significance of the F-22 is that we have 187 air superiority fighters, which cost us $32 billion and 20 years to produce. Their existence means that before you attack the United States, you'd better have something to keep these 187 planes from shooting down

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To educate the public about the critical role of aerospace power in the defense of our nation.

To advocate aerospace power and a strong national defense.

To support the United States Air Force and the Air Force family and aerospace education.

Letters

your entire air force. Frankly, no nation in the world has the resources and knowledge to do this, so 187 F-22s are enough.

It will take a long time and a lot of money for some nation to develop military assets to enable it to trump these 187 F-22 Raptors, and if some nation decides to do so and to attack us, we will have lots of time to respond to their arms development and leapfrog whatever they build to shoot down Raptors. In this regard, "more" Raptors would be "outdated and unnecessary."

Of course, an F-35 is inferior to an F-22, as is an F-16, an F-18, [and] every other plane on the planet. As long as other nations have equipment similar to the F-35, F-16, and F-18, our 187 F-22s are enough to deter a real war attack on the US.

Rather than mourning the end of F-22 production, I applaud our resolve and completion of such a great game-dictating weapon which will bring us peace from major attacks for decades.

Johnnie Crean
Kamuela, Hawaii

The New Playbook

In your recent article in the September 2009 issue of *Air Force* Magazine titled "The New Playbook" *[p. 40]*, there is an error in paragraph 18 under the section titled "Directing the Flight." The statement in error is "F-15 age-limited of Mach 1.5."

Actually, as a result of an accident board investigation of a high-speed incident (about 2005), F-15C/D models had a temporary Mach 1.5 limit imposed on them until incorporation of a Time Compliance Technical Order, which inspected and repaired (if necessary) the tail structure of the aircraft.

All F-15s are in compliance with this TCTO and cleared for design max Mach number of Mach 2.5. Thank you for your attention to this detail.

Richard T. Banholzer,
St. Charles, Mo.

I enjoyed John Tirpak's article on the playbook for the F-22. I think the analogy to the quarterback is a good one, as the F-22 will be the alpha male in manned air combat for years to come. There is still a missing piece, however, to the puzzle of how to get the most out of our aging and dwindling fighter force. That piece is fully upgrading and modernizing our current airborne C2 and battle management platform, the E-3 Sentry (AWACS).

If the F-22 is the quarterback, the AWACS is the offensive and defensive coordinator. The E-3 is the *sine qua non* of modern air combat, indispensable everywhere we employ airpower. It's in the fight over Afghanistan, Iraq, in the Far East, the Caribbean, and even augments NORAD for homeland defense. But the E-3 fleet gets older and older, stretching 1960s technology to the limit. My son's wristwatch has more computing power, and his PlayStation Portable has better graphics and memory.

By trying to make the F-22 so good that it can make up for what the AWACS cannot do, are we not approaching things the wrong way? We need to make AWACS better, so it can aid all our air assets. Make a fighter better, win the battle; make an AWACS better, make all the fighters better and win the war. An F-22 carries missiles and guns into the fight. The AWACS carries F-22s (and a lot of other aircraft) into the war.

While capable, the F-22 cannot do the job of the AWACS. In fact, it makes no sense for a shooter to try and orchestrate an air war.

We've gotten all the F-22s we're going to get. Now let's fix our C2-battle management. Step 1: Accelerate funding and implementation of the Block 40/45 computer upgrade for the E-3. Step 2: Develop

a ground- or air-based alternative to the 707 for the next generation of C2-battle management that has improvements in airframe (if needed), sensors, and links. This investment will yield dividends that ripple across all the combat air forces for many years, will make the fighters we do have a match—and more—for the enemy's best, and will give our quarterback a winning game plan far into the future.

Lt. Col. Geoffrey F. Weiss,
Tinker AFB, Okla.

Over There

My compliments to John T. Correll on his wonderful article on Gen. Billy Mitchell and the US Air Service in World War I *[September, p. 64].* Correll really captured the struggle Mitchell and the Air Service faced not only from our late start in forming an air arm, but then in the actual fighting once we got "Over There." As a pilot of a restored B-25 Mitchell bomber, my interest was piqued, and I read the story several times.

George A. Hulett
Woodland Hills, Calif.

Washington Watch

Thanks for your excellent article on Gen. John D. W. Corley, [then] commander of Air Combat Command, and his excellent written response to Congress that the end of the F-22 production line at 187 fighters "puts execution of our current national military strategy at high risk in the near- to mid-term" *["Washington Watch: Corley and the Culture Warriors," August, p. 8].* As a rated USAF officer having worked on the F-15 Electronic Warfare (EW) air superiority program at Eglin AFB, Fla., I know and understand that the cutoff of the F-22 fighter at 187 aircraft spells doom for this program from the beginning. It should be obvious to any air advocate that 187 fighters of any type are unsustainable in the out-years and will quickly become a token force due to the inability to project the nation's air superiority mission worldwide.

Lt. Col. Sid Howard,
USAF (Ret.)
Midwest City, Okla.

The Petraeus Joke

Army Gen. David H. Petraeus' joke was a bowdlerization of a bowdlerization of a long-standing joke *["Air Force World: Petraeus' 'Joke' Bombs With Airmen," October, p. 12].*

Give General Petraeus a break. This was humor. Everyone listening knew it. He hasn't the slightest doubt of the importance of the contribution of the Air Force. Neither do those marines on the ground who need some well-placed ordnance. Since separate services existed, they have been making jokes about each other. Most of us recognize that the jokes are an oblique way of expressing or acknowledging appreciation, if only grudgingly. These jokes are also an acknowledgment of the differences between the services. The Air Force is not the Marines (thank heaven). I am proud of the Air Force. And the Army. And the Navy. Even the Marines. We can afford to laugh about our differences because when the chips are down, we put those differences aside, pull together, and get the job done.

Lighten up.

Jon R. Brenneman
Hallstead, Pa.

General Petraeus owes the United States Air Force an apology.

It's inconceivable that a general in charge of a unified command would take a cheap shot at one of his components. General Petraeus owes an apology to the next of kin of all the young airmen killed on the ground in Iraq and Afghanistan. They had their "boots on the ground," and I would wager they didn't have ponytails when they gave their lives for our country. I would hope that he realizes that USAF is a most valued resource and is part of his command.

CMSgt. Karl Hammerdorfer,
USAF (Ret.)
Woodbridge, Va.

Washington Watch

By John A. Tirpak, Executive Editor

Triumph of hope over experience; Easy as X-Y-Z; Reach for your guns ....

Another Try at KC-X

Moribund for nearly a year, the KC-X tanker program has begun moving again, but the Air Force won't be making up for lost time by accelerating the planned buy of new aircraft. In fact, it's now almost certain that some KC-135s will be in service for 80 years or more.

The tanker competion was relaunched in September. Plans call for the contest to produce a winner by early summer 2010, followed by initial deliveries in 2015 and initial operational capability in 2017. That assumes no further delays.

"We have been at this for several years now and we very much need to succeed," Air Force Secretary Michael B. Donley said at a Pentagon press conference.

The project was restarted on Sept. 25, with the release of a new request for proposals. Defense Secretary Robert M. Gates, speaking a week earlier at AFA's Air & Space Conference, announced he was putting the Air Force back in charge of running the program and of choosing the winner, albeit with heavy input from Pentagon overseers and other services.

Gates had withdrawn USAF's authority when contractor protests caused the program to collapse in 2008.

"The KC-135 entered the Air Force in the mid- to late-'50s," Donley noted. "The youngest KC-135 was delivered in 1964." Recapitalizing the fleet will be a "long-term process," he said.

The Air Force selected Northrop Grumman's Airbus A330-derived tanker as the winner of the KC-X contest in February of 2008, but Boeing protested the award, and the Government Accountability Office later upheld the protest. The GAO said the Air Force hadn't followed its own rules in choosing a winner, and had inconsistently or subjectively graded the contractors on various aspects of the program.

The bottom line, the GAO said, was that the contractors couldn't be sure just what capabilities were most important to the Air Force, or how they would be weighed. Gates terminated the program outright in the fall of 2008, saying it had to start fresh to succeed.

Senior Air Force officials said privately that the KC-X has been limited to 179 aircraft—a rate of about 12 per year—because of a desire to change the program as little as possible, to avoid further contractor protests.

Three Tanker Tracks

With the tanker announcement, the Air Force has resurrected its plans to buy replacement tankers in three rounds: a KC-X, KC-Y, and KC-Z.

The first round—KC-X—seeks procurement of 179 aircraft, delivered over a period of about 15 years, Donley said, meaning it will conclude in about 2030. There are 415 KC-135s in service today, so there will still be 236 or so serving when the last KC-X has been delivered.

The second round—KC-Y—would be launched to replace younger KC-135s. The service's 59 middle-aged KC-10s, would be replaced with another larger-size tanker in the third—KC-Z—round.

If the KC-Y takes 15 years to buy out, the last USAF KC-135 will retire in 2045. The KC-Z would be bought over a further 10 to 15 years, meaning the KC-10 would also be past its 75th year when it is replaced. No aircraft engaged in day-to-day operations has ever been kept in service so long.

USAF photo by MSgt. Vincent De Groot

KC-135s: Even the youngest ones are old.

Air Mobility Command has also said that it requires about 471 to 581 tankers right now, and is short by some 52 to 166 aircraft due in part to the sudden retirement—for safety reasons—of all KC-135Es last year.

Asked why the Air Force won't accelerate the tanker buy, Donley said the three-phase strategy "seems prudent," given the time it will take to get the aircraft.

Moreover, "we will want to re-evaluate at the end, about 15 years out or so, how we want to approach a KC-Y. How do we approach the next increment of tanker recapitalization?" Previously, senior Air Force leaders have speculated that by the time the KC-X is concluded, new types of aircraft might be available for consideration as a tanker.

Asked about the likely course of action if Congress directs a dual buy—some from both Boeing and Northrop Grumman, as a way to prevent the political gridlock that strangled the last KC-X attempt—Deputy Defense Secretary William J. Lynn III said that "the legislation gives us a choice between the path that we followed or a dual buy, and we are proposing ... a single award."

Picking a single aircraft would save money on development, logistics, training, and personnel, to the tune of billions of dollars. However, Rep. John P. Murtha (D-Pa.), chairman of the House Appropriations Committee's defense subcommittee, said it is "the sense" of his panel that tankers should be bought at a faster pace, due to the extreme age of the KC-135s.

Lynn said, "The RFP allows us to make a dual buy, and the RFP allows us to make 'no award.' But our plan is to make a single award. And I think Congress has really already spoken on that."

Price "Shoot-out," or Not?

Announcing the KC-X program's relaunch at the Pentagon, Lynn said, "We've taken every step that we can think of to make this a fair and open, transparent competition." The Pentagon wants to avoid the political turmoil that has derailed the project several times in the last eight years.

Lynn and Pentagon acquisition, technology, and logistics chief Ashton B. Carter explained that definitive scoring plans

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have been put in place, with simple rules on how much value is assigned to each capability. When a winner is chosen, "everybody'll know why one side won and the other side lost," Carter asserted.

Requirements have been distilled, Donley said, from 808 to 373, mostly by consolidating and reducing duplication. Offerors meeting those requirements will then be judged against war plan simulations, worst-case and day-to-day cost of ownership, and the cost of military construction attending each entry.

Although price will be an important consideration, he said, "a price shoot-out ... is not what we're proposing here."

If, after all evaluations, there is a low bidder by more than one percent, "end of story," Carter said. But if the bids are within one percent of each other, "then and only then," a group of 93 desirable qualities will be considered as a tiebreaker, Carter explained. Each will be judged on a pass-fail basis with no partial credit on any but one or two criteria, and even then, weighting is clearly spelled out.

Air Mobility Command has decided that it would like to have those 93 capabilities, or some portion thereof, but isn't "willing to pay" more than one percent of the overall program cost to get them, Carter noted.

After the "extras" are weighed, if the bids are still within one percent of each other, the winner will be the one that came in lowest after meeting the basic requirements.

Looking at the requirements and weighting assigned, Carter said, the contractors now "know how to win. No doubt."

Air Force Chief of Staff Gen. Norton A. Schwartz had said a week earlier that he expected the Air Force to release an RFP that was "foolproof." The Air Force was convinced that its previous tanker competition rules were "fair and open," and repeatedly uttered that claim, but it proved not to be the case.

Boeing and Northrop Grumman each said they would study the RFP to see whether they would bid, and how. A Boeing spokesman said the company might offer both a KC-767 tanker variant and one based on the much larger 777, but "clearly understands" that its customer wants to buy only one type of aircraft for the job.

Northrop Grumman, though, said it continues to be "concerned" about what it claims was the release of proprietary information about its tanker offering in the last go-around. Boeing was given cost information as part of the debrief about why Boeing lost, and Northrop Grumman said that disclosure now puts its proposal at a "fundamentally unfair" disadvantage, especially since price has apparently taken on a greater importance in the revamped contest.

Carter addressed the issue at the Pentagon press conference, saying that the Defense Department "has examined this claim and found both that this disclosure was in accordance with regulation and, more importantly, that it created no competitive disadvantage because the data in question are inaccurate, outdated, and not germane to this source-selection strategy."

Sen. Jeff Sessions (R-Ala.), in whose state Northrop Grumman would build the tanker if it wins the contest, introduced legislation shortly thereafter, barring funding for the KC-X unless the Pentagon releases Boeing's cost data from the last tanker competition. The DOD had previously denied Northrop Grumman's requests for the data.

Kaminski's Five Steps

The Pentagon's acquisition system is broken, and more laws aren't necessarily the way to solve the problem. What's needed is a focus on skilled people who are given the authority and money to run programs as they see fit.

That was the prescription offered by Paul G. Kaminski, former Pentagon acquisition, technology, and logistics chief during the Clinton Administration, speaking at AFA's Air & Space Conference in September.

Photo by Guy Aceto

Kaminski: Slash development time, not the workforce.

Kaminski, who was instrumenta in shepherding stealth technology from the drawing board to the flight line, said various efforts over the decades to "streamline" defense procurement have usually ended up as personnel-cutting efforts.

During his own tenure, Congress reduced the acquisition workforce, and "there followed three more years of cuts." This led to a "very serious erosion of the skill and experience base" in the acquisition workforce, and "we're still harvesting some of those problems," Kaminski said.

To fix acquisition, he proposed five steps, centered on personnel.

First, Kaminski said programs need to be staffed with people who know the "domain" in which the end product will function, so they can better schedule and organize new projects. He also said more money should be put into programs up-front to get this all-important phase right. There must be emphasis on recruiting and retaining those skilled at systems engineering.

Second, the Pentagon needs to give program managers "responsibility, authority, and accountability," free from the micromanagement of Pentagon higher-ups and Congress. Kaminski said they should also be given 10 to 20 percent management reserves to cope with inevitable technical problems.

Programs need funding stability, Kaminski said, and his third recommendation would be that both the Pentagon and Congress give up some of their "flexibility" to tinker with projects so that program managers have a predictable funding line to work with. During his tenure as the Pentagon's No. 3 official, he saw "about 10 percent cuts made retroactively to the investment budget," a situation that was "very disruptive."

Up front in a program, there should be "serious attention" to how it will be tested and evaluated later on, Kaminski said, explaining his fourth proposal. The test phase is usually underfunded, and program managers must often expend huge sums meeting test criteria that often don't relate to real-world use of the system.

Finally, Kaminski said program development time must be slashed, from the current 15 years down to five or less. Less-ambitious objectives for an initial system, followed by steady upgrades, will help, as will implementing the rest of his prescription. However, if this doesn't happen, he said that the industrial base will be populated by managers who have only managed one program—or less—during their careers, discouraging people from entering the field and doing deep harm to the talent base. Success in the future will depend on having managers experienced in a number of programs, and ideally, from different domains, Kaminski said. ■

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Air Force World

By **Michael Sirak,** Senior Editor, with **Marc Schanz,** Associate Editor

Airmen Killed in Southwest Asia

First Lt. Joseph D. Helton, 24, of Monroe, Ga., died Sept. 8 near Baghdad, Iraq, of wounds suffered when an improvised explosive device went off near his vehicle. He was assigned to the 6th Security Forces Squadron at MacDill AFB, Fla.

Four days later, SSgt. Bryan D. Berky, 25, of Melrose, Fla., died near Bala Baluk, Afghanistan, of wounds he sustained from enemy fire during combat operations. Berky was an explosive ordnance disposal technician who had deployed to Afghanistan from the 28th Civil Engineer Squadron at Ellsworth AFB, S.D.

Airmen Die on Deployment

SrA. Matthew R. Courtois, 22, of Lucas, Tex., died Sept. 20 in a nonhostile incident on Abdullah Al Mubarak Air Base in Kuwait. TSgt. James R. Hornbarger, 33, of Castle Rock, Wash., died Sept. 12 as a result of a nonhostile incident in the Mediterranean.

Courtois had deployed from the 366th Security Forces Squadron at Mountain Home AFB, Idaho, to support operations in Iraq. Hornbarger had deployed from the 9th Aircraft Maintenance Squadron at Beale AFB, Calif., to support Operation Enduring Freedom. As of Oct. 20, the Air Force had not released information on the causes of death for either airman.

Gates Visits F-35 Plant

Secretary of Defense Robert M. Gates, noting the "huge investment" already made, reaffirmed his strong commitment to the F-35 Lightning II stealth

✪ screenshot

10.04.2009

fighter program during his Aug. 31 visit to Lockheed Martin's F-35 assembly plant in Fort Worth, Tex.

"It is the heart of the future of tactical combat aviation for our services. So the importance of this program can hardly be overstated," he told reporters after his site tour. He continued, "I guess I would say my view is we cannot afford, as a nation, not to have this airplane."

Overall, Gates said he was "very impressed" by what he saw during his visit, in terms of the robotics and automation on the F-35 assembly line and, perhaps most especially, the dedication of its workforce. He added that he is "excited" about the program since it appears to have surmounted the high-risk elements associated with its development.

McChrystal Views Air Strike Site

US Army Gen. Stanley A. McChrystal, commander of US and NATO forces in Afghanistan, on Sept. 5 visited the site of the air strike two days earlier in Kunduz province that Afghan officials claim killed numerous civilians in addition to insurgents.

In a radio broadcast, McChrystal said, "I take this possible loss of life or injury to innocent Afghans very seriously." He promised a "complete investigation" that he would "share with the Afghan people." Shortly after assuming command in June, McChrystal issued a tactical directive intended to restore emphasis on avoiding civilian casualties.

The German commander who authorized the Sept. 3 strike by a USAF F-15E initially denied civilians had been in the area where Taliban insurgents had hijacked two fuel trucks; however, according to a Sept. 7 Associated Press report, German officials now say it is likely some civilians died.

New Vice Chief, ACC Boss

Gen. Carrol H. Chandler on Aug. 27 became the vice chief of staff of the Air Force. He assumed USAF's No. 2

B-1B Crew Wins Mackay Award

The B-1B bomber aircrew Bone 23 is scheduled to receive the prestigious 2008 Mackay Trophy from the National Aeronautic Association on Nov. 2 for its support of ground forces during a July 13, 2008 troops-in-contact situation in Afghanistan.

The crew—Maj. Norman Shelton, Capt. Kaylene Giri, Capt. Louis Heidema, and 1st Lt. Boyd Smith—deployed from the 37th Bomb Squadron at Ellsworth AFB, S.D., was short on fuel but managed to coordinate an aerial refueling that enabled it to make three bomb runs, slowing the attack of a 200-strong enemy force and allowing coalition forces to regroup.

The crew will be presented with the trophy during the NAA fall awards banquet in Arlington, Va. The Mackay Trophy is awarded for the most meritorious flight of the year by an Air Force person, persons, or organization.

USAF photo by SSgt. J. G. Buzanowski

At an unidentified Persian Gulf air base, two USAF airmen prep a U-2S spyplane for imminent takeoff. The aircraft and pilot, Capt. Peter Gryn, were deployed from Beale AFB, Calif., to the 380th Air Expeditionary Wing. U-2s, with a wingspan of 103 feet, can fly above 70,000 feet to provide intelligence-surveillance-reconnaissance data for combatant commanders and individual troops alike. This particular U-2, No. 68-10337, exceeded 25,000 flying hours on a mission flown two weeks after this photo was snapped.

Moseley Disciplined Over TAPS

Gen. T. Michael Moseley, USAF (Ret.), former Air Force Chief of Staff, was given a letter of admonishment by Air Force Secretary Michael B. Donley on Oct. 6. The punishment was administered on the basis of Pentagon inspector general findings that Moseley acted wrongly in the tainted award of the $50 million Thunderbird Airshow Production Services contract canceled in 2006. Moseley disputed the findings and rejected the IG's conclusions that he did anything wrong.

Moseley will continue to be retired at the four-star rank and loses no retirement benefits.

Moseley wrote a Sept. 28 memo to Donley asserting that the second investigation found no new facts and therefore the punishment was unjustified.

He insisted that over the course of the TAPS contract, his actions were vetted by Air Force lawyers.

"The only guidance I gave anyone during the evolution of this endeavor was to 'Do this right,'" Moseley argued to Donley, rejecting "categorically ... the notion of any wrongdoing" on his part. The monetary value of the gifts Moseley received, he said, "fell well within the allowable standard under the existing regulations."

Moseley asserted that the TAPS investigation "appears to have been politicized," and charged that there was "public pressure brought to bear on the DOD/IG" by members of Congress and their staffs "to continue to vilify senior Air Force leadership and to find some type of wrongdoing on my part."

Donley issued a statement that "Moseley's years of dedicated service temper, but do not excuse, his failure in this case to live up to the well-established standards of conduct expected of all airmen. Everyone is accountable for his or her actions. This is especially so for our senior leaders, who must also create an environment where subordinates respect established standards and are willing to engage when things are not right."

The TAPS contract was meant to create a multimedia, jumbotron-style show to accompany demonstrations by the Thunderbirds aerial demonstration team. In 2006, an internal Air Force review raised questions about how the contract was awarded, and a subsequent Defense Criminal Investigative Service probe found that the contract was "tainted with improper influence, irregular contracting practices, and preferential treatment" for the winning contractor, Strategic Message Solutions, according to a USAF statement. (See "Washington Watch: L'affaire Thunderbird," June 2008, p. 8.)

The initial investigations didn't pin any blame on Moseley, although one Air Force general officer and four other officers received punishment. However, Sen. Carl Levin (D-Mich.) and Sen. John McCain (R-Ariz.), the chairman and ranking member, respectively, of the Senate Armed Services Committee, said they wanted closer scrutiny of the role senior serving or retired officers may have played in the affair, and in spring 2008 asked the Pentagon IG to look deeper.

The IG concluded its second probe over the summer, and told Donley that Moseley had "violated well-established standards of conduct in the Joint Ethics Regulation and the Federal Acquisition Regulation. Specifically, he provided preferential treatment" to SMS, "created the appearance of improper disclosure of nonpublic information to Strategic Message Solutions; misused subordinates' time and government property; and solicited a gift and accepted gifts from a prohibited source."

Undecided at the time of the admonishment was whether Moseley can conduct business with the government. At a press conference, Donley said the Navy is conducting an impartial review of the issue. —*John A. Tirpak*

uniformed post after an almost two-year stint as commander of Pacific Air Forces.

Chandler succeeds Gen. William M. Fraser III, who held the vice chief's office since October 2008. Fraser took charge of Air Combat Command, assuming leadership responsibilities on Sept. 10 during a ceremony at Langley AFB, Va.

Fraser replaced Gen. John D. W. Corley, who formally retires Nov. 1. On Aug. 19, Chandler's replacement, Gen. Gary L. North, assumed command at PACAF.

F-35 Basing Criteria Released

The Air Force on Sept. 17 announced the criteria it will use to select the bases that will get the new F-35 Lightning II stealth fighter. The service announced it will factor airspace, flight training ranges, weather, support facilities, runways, taxi ramps, environmental concerns, and cost factors for the more than 200 sites under consideration.

Then it will look at combatant commander requirements, the service's fighter retirement plan, maintenance and logistics support, and integration with the Air National Guard and Air Force Reserve to further refine its lists, producing two candidate lists—one for operational sites and one for training sites.

Then the service will begin environmental impact analyses, at which point communities around the candidate bases will be able to provide their inputs.

In late spring 2010, USAF expects to release its preferred locations. Its record of decision with final basing choices is planned in early 2011.

USAF To Leave RAF Fairford

According to two British news reports in September, the Air Force will draw down its activities at RAF Fairford, Britain, next year, removing all uniformed airmen and some US civilian personnel.

The BBC and the This Is Gloucestershire Web site reported Sept. 15 and Sept. 16, respectively, that the US personnel withdrawal is planned for completion by September 2010. The changes will also cause the loss of jobs for some 100 British citizens employed at the base.

Thereupon, RAF Fairford, which has served as a staging base for B-52 bombers, would be run on a "care and maintenance" basis, but still be available as a NATO standby base and USAF forward operating location capable of reactivation for use within 24 hours to 48 hours, if needed.

New Command Center Running

Air Forces Central has begun operations at the newly constructed combined air and space operations center (CAOC) in Southwest Asia, the command announced Sept. 3. Work to establish the new center started five years ago.

Air Force officials have said this new CAOC, which is located at the same air base in the region as the previous command center, will tremendously enhance the ability of the combined force air component commander to plan and execute the air campaigns in Afghanistan and Iraq and the air activities elsewhere in the theater.

"This new facility will bring new technologies and improved working conditions," said Maj. Gen. Stephen L. Hoog, deputy CFACC. It features 160 miles of fiber-optic cable, 2,325 monitors to display air operations, and more than 1,500 nonsecure and secure telephones.

New Sats Monitor Missiles

The Air Force successfully launched the Missile Defense Agency's two Space Tracking and Surveillance System dem-

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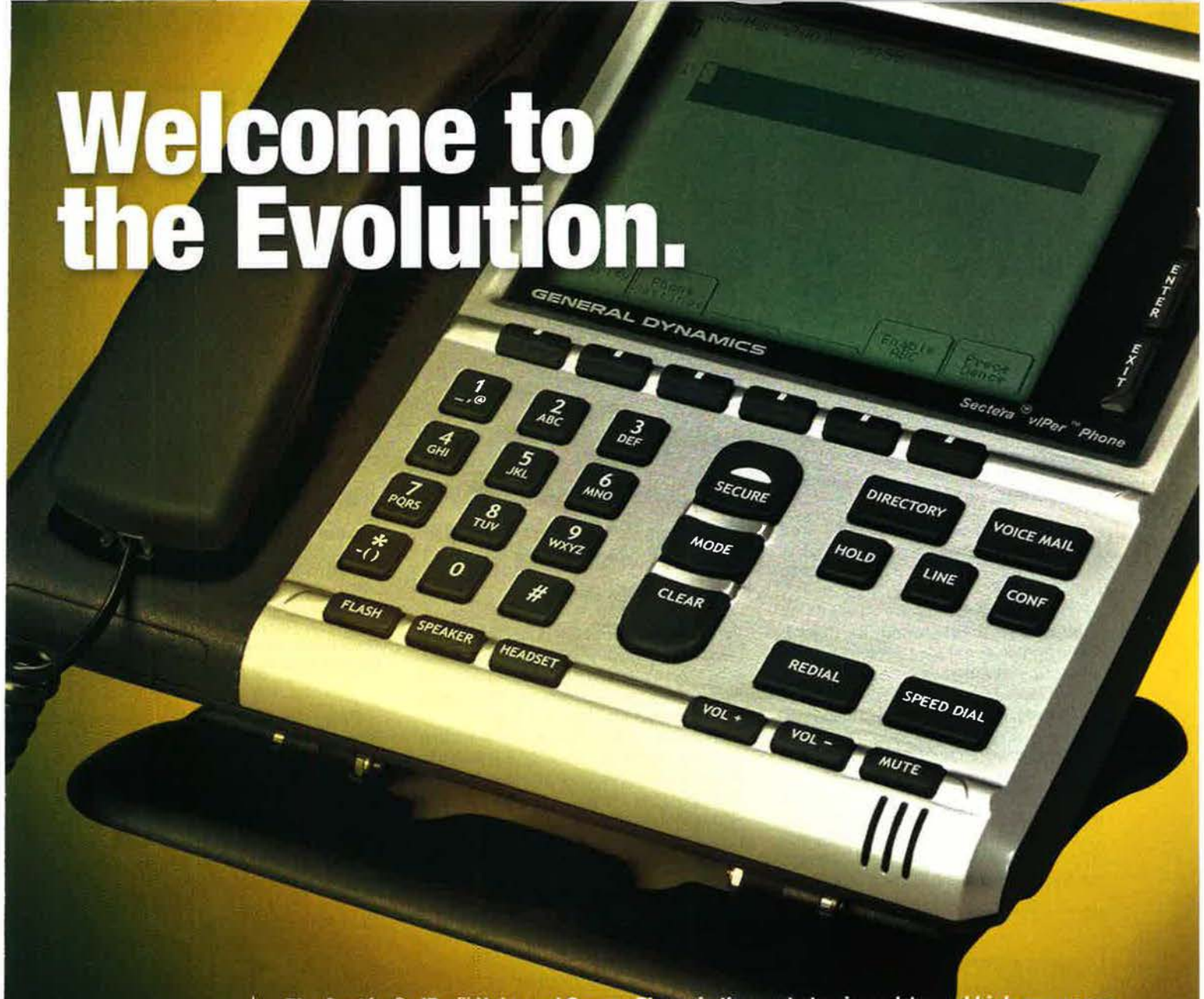

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USAF photo by Al Bright

***Painful Heritage:** An Air Force rescue and safety crew inspect the wreckage of a replica of the 1905 Wright Flyer III, which crashed on Huffman Prairie Flying Field at Wright-Patterson AFB, Ohio, on Oct. 1. The pilot and aircraft builder, Mark Dusenberry, was hospitalized with serious injuries.*

onstrator satellites into low Earth orbit Sept. 25 from Cape Canaveral AFS, Fla., aboard a United Launch Alliance Delta II rocket.

The sensors aboard the STSS demo spacecraft are expected to detect, track, and discriminate ballistic missiles throughout their trajectories as part of MDA's layered ballistic missile defense system. MDA expects the satellites to remain in orbit for two to four years and pave the way for fielding an operational constellation.

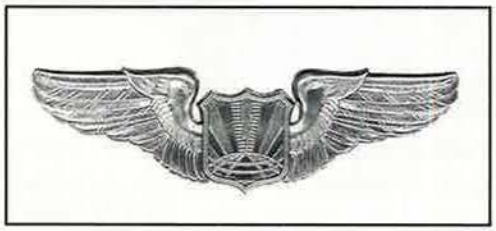
Northrop Grumman built the STSS demo spacecraft. In a Sept. 25 release, Gabe Watson, company vice president and STSS program manager, said he expects the STSS demo to "show the inherent advantages space sensors bring to persistent missile tracking and engagement."

USAF Proposes Major Cuts

To meet spending caps imposed by the Office of the Secretary of Defense for Fiscal 2011 and beyond, the Air Force has proposed canceling or curtailing some of its major modernization efforts, Bloomberg news wire service reported Sept. 2

Included under the service's budget axe are reportedly the C-130 Avionics Modernization Program and new engines on E-8C Joint Surveillance Target Attack Radar System aircraft, along with new radio systems, communications satellites, Small Diameter Bombs, and Global Hawk Block 40 unmanned reconnaissance aircraft.

Citing Air Staff planning documents, Bloomberg said the Air Force's moves were intended to shed $24.2 billion, or about 3.8 percent of its projected five-year budget, while protecting funding for the F-35, CV-22, and its future KC-X tanker aircraft. The Air Force is not alone, as all of the services have been told by OSD to make cuts in future years.



***Bright New Wings:** Air Force Chief of Staff Gen. Norton Schwartz has approved a new set of wings to be given to unmanned aerial vehicle operators. The wings, designed by SSgt. Austin May, were first presented to the graduating Beta class, Creech AFB, Nev., on Sept. 25.*

Final F-15s Depart Eglin

The last three F-15s of the 33rd Fighter Wing at Eglin AFB, Fla., were flown Sept. 8 to their final destination in Tucson, Ariz., as part of the wing's transition from an F-15 operational combat unit to a training wing for the new F-35 stealth fighter.

Col. Todd Harmer, 33rd FW commander, flew the wing's flagship aircraft to Tucson, where it, along with the two others, will be placed in storage with the 309th Aerospace Maintenance and Regeneration Group.

"It's bittersweet knowing that once I'm airborne, it's the end of the Eagle's 30-year association with the 33rd Fighter Wing, and the ramp will sit empty until the F-35s arrive next year," said Harmer before the flight. The wing formally switched over to a training unit Oct. 1.

Senate OKs Spending

On Sept. 9, the Senate Appropriations Committee unanimously passed its version of the Fiscal 2010 defense spending bill proposed by its defense panel, which added $2.5 billion in funds for 10 additional C-17 transport aircraft not requested by the White House but did not fund the F136, the competing engine for the F-35 stealth fighter, per the Pentagon's request.

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Defense Policy Bill Funds Second F-35 Engine

House and Senate defense authorizers agreed in conference in early October to retain a markup in the Fiscal 2010 defense authorization bill that provides $560 million for the General Electric-Rolls Royce F136 engine, the competing power plant to Pratt & Whitney's F135 for the F-35 Lightning II stealth fighter.

The House passed the conference version of the bill on Oct. 8. The Senate had not voted on it as of midmonth.

The F136 funds, originally added by the House to its version of the bill, would keep the F136 program alive over the objections of the Obama Administration, which wants to terminate it. The Department of Defense has said there is not enough money to pursue both engines and favors the F135 because it is comparatively more mature at this point.

The $560 million would not come out of DOD's baseline budget request for the F-35, but would be in addition to it, ostensibly not disrupting the fighter's development in Fiscal 2010. Despite that, the Office of the Secretary of Defense said in mid-October it was evaluating the Congressional move and whether to recommend a White House veto of the defense policy bill when it came before President Obama.

"The action taken thus far by the Congress is clearly troubling, but we need to gain a better understanding of its impact," said Pentagon spokesman Geoff Morrell Oct. 14. He said OSD remained committed to ensuring that the F-35 program "is not adversely impacted by pursuing a second engine."

The White House had said earlier in the year that Presidential advisors would likely recommend a veto to the President if the bill contained F136 funding.

Also in October, House and Senate defense appropriators moved into conference to hash out the final version of the Fiscal 2010 defense spending bill. As was the case with the authorization bill, the House funded the F136 in its version of the legislation, while the Senate did not.

Although the bill contained no funds to continue production of the F-22 fighter—just as the House bill did not—the Senators did include a provision to push forward with an export version, urging the Air Force to "start this effort" from within funds appropriated for continued F-22 research and development.

Sen. Daniel K. Inouye (D-Hawaii), SAC chairman, said Sept. 9 he believed that the Department of Defense "will eventually conclude" that buying more C-17s is "the right solution." The House version of the spending bill included money for three C-17s.

The full Senate approved the measure on Oct. 6. House and Senate conferees then had to work out differences before it would be sent to the President.

Space Monitoring Beefed Up

The Joint Space Operations Center at Vandenberg AFB, Calif., is now capable of monitoring all of the more than 800 active maneuverable satellites on orbit to warn of pending collisions with other satellites and known space debris, the Air Force announced Sept. 1.

The center's capacity rose from being able to track 120 satellites to the current figure on Aug. 23, more than one month ahead of its Oct. 1 goal. The US began to place greater emphasis on satellite tracking for impact avoidance following the collision of a commercial Iridium satellite and inactive Russian military satellite in February.

Since the JSpOC started screening all the satellites, it has warned of six possible collisions. With data provided by the center, the Air Force says satellite operators can safely steer their spacecraft from harm.

Second UAV Training Unit Up

The Air Force's new unmanned aerial vehicle formal training unit at Holloman AFB, N.M., reached initial operational capability with the MQ-1 Predator UAV on Sept. 10.

That moved USAF closer to its goal of shifting all formal training for both the Predator and the MQ-9 Reaper by 2012 from Creech AFB, Nev., to Holloman, where there is room for expansion.

"In the long term, it's going to create a lot more pilots and sensor operators than we would have had at Creech," said Col. Greg Christ, vice commander of the 432nd Wing at Creech, which will continue as the center for UAV combat operations, while Holloman will concentrate on training.

8th Air Force Reorganized

The Air Force's lead organization for nuclear-capable bombers, 8th Air Force at Barksdale AFB, La., shed its nonbomber wings on Oct. 1 as part of its transition to Air Force Global Strike Command by next February and its emerging concentration on the nuclear mission.

The changes left "The Mighty Eighth" with its three bomber wings: Barksdale's 2nd Bomb Wing, a B-52H unit; the 5th Bomb Wing, a B-52H unit, based at Minot AFB, N.D.; and the 509th Bomb Wing, USAF's sole operator of B-2A stealth bombers, at Whiteman AFB, Mo.

The numbered air force's other wings, mostly reconnaissance assets, moved to 12th Air Force and 9th Air Force. They included: the 9th Reconnaissance Wing at Beale AFB, Calif., which flies U-2s; the 55th Wing at Offutt AFB, Neb., an RC-135 Rivet Joint operator; the 116th Air Control Wing at Robins AFB, Ga., USAF's sole E-8C Joint STARS unit; and the 552nd Air Control Wing at Tinker AFB, Okla., an E-3 AWACS organization.

C-5M Claims World Records

A combined flight crew of active duty airmen from the 436th Airlift Wing, Air Force Reservists from the 512th Airlift Wing, and Lockheed Martin personnel likely set 41 world aeronautical records in altitude, payload, and time-to-climb during a one-and-a-half-hour flight of a C-5M Super Galaxy transport aircraft Sept. 13 from Dover AFB, Del.

According to the Air Force and Lockheed Martin, the C-5M climbed to 12,000 meters in less than 28 minutes with a payload of more than 176,000 pounds, breaking seven existing world marks for an aircraft weighing between 250,000 kilograms (551,155 pounds) and 300,000 kilograms (661,386 pounds) held by the C-17 Globemaster III transport and one by the Russian Tupolev Tu-160.

The C-5M also established standards in 33 categories where there had been no previous record attempt. The National Aeronautic Association documented the flight and was expected to certify the records by mid-October.

Reapers Go After Pirates

The US Navy disclosed in late August that it will operate a small contingent of unarmed MQ-9 Reaper unmanned aerial vehicles from the Seychelles islands in the western Indian Ocean to help patrol for pirates threatening sea commerce off the coast of Africa.

This overwater surveillance mission, called Ocean Look, came about at the request of US Africa Command, said Navy spokeswoman Lt. Callie Ferrari. AFRICOM spokesman Vince Crawley said the Reapers deployed for Ocean Look will be "enough to allow one air patrol per day." Unlike Air Force MQ-9s, which carry bombs and missiles, these Reapers will be unarmed.

The Navy will deploy the Reapers from its pool of four MQ-9s that it has been using as flying test-bed platforms for sensor testing and integration out at

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For instance, current flight tests of the next-generation F-35 Lightning II Joint Strike Fighter are carried out with sensors and systems aligned by ABE. The Air Force also has ordered ABE systems for its AC-130 gunships, MC-130 platforms, C-17 Globemaster III transports, and C-130 Avionics Modernization Program.

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Casualties

By Oct. 16, a total of 869 Americans had died in Operation Enduring Freedom. The total includes 868 troops and one Department of Defense civilian. Of these deaths, 620 were killed in action with the enemy while 249 died in noncombat incidents.

There have been 4,302 troops wounded in action during Operation Enduring Freedom. This number includes 1,688 who were wounded and returned to duty within 72 hours and 2,614 who were unable to return to duty quickly.

Fewer Air Munitions Dropped in 2009

Based on statistics issued by Air Forces Central on Sept. 2, the rate of aircraft munitions usage in Afghanistan began to drop before US Army Gen. Stanley A. McChrystal issued his new tactical directive in early July.

McChrystal took over on June 15 as US and NATO International Security Assistance Force commander, replacing US Army Gen. David D. McKiernan to provide a fresh perspective per Secretary of Defense Robert M. Gates.

The rate of munitions usage dropped by about 30 percent in a comparison of the first eight months of 2009 to the same time period in 2008, but, comparing the month of June alone, the rate was about half what it was last year.

Thus, it seems reasonable to say that US-NATO forces had already begun reducing their calls for air strikes under McKiernan's watch and are continuing to do so under McChrystal.

Predator Takes Out IED

Operators of an MQ-1 Predator remotely piloted vehicle spotted a team of insurgents emplacing an improvised explosive device Sept. 21 in the Sheykhabad area of Afghanistan, according to Air Forces Central.

They then fired a Hellfire missile, "eliminating the IED and the emplacement team," AFCENT said.

Operation Iraqi Freedom—Iraq

Casualties

By Oct. 16, a total of 4,352 Americans had died in Operation Iraqi Freedom. The total includes 4,339 troops and 13 Department of Defense civilians. Of these deaths, 3,474 were killed in action with the enemy while 878 died in noncombat incidents.

There have been 31,529 troops wounded in action during Operation Iraqi Freedom. This number includes 17,652 who were wounded and returned to duty within 72 hours and 13,877 who were unable to return to duty quickly.

US, Iraqi Officials Discuss Ali Base's Future

US Air Force Maj. Gen. Robert C. Kane, director of the Iraqi Training and Advisory Mission-Air Force, and Lt. Gen. Anwar Hamad Amen Ahmed, Iraqi Air Force commander, visited Ali Base, Iraq, on Sept. 24 to conduct a site survey of the airfield and facilities there, and to speak with members of the local media.

According to Air Forces Central, this was the first joint visit by these officials and marked a significant step in providing Iraqi Air Force officials with a better understanding of what assets will be available to support them at Ali Base during the drawdown of US forces there and transition to Iraqi control. Currently, USAF's 407th Air Expeditionary Group runs the base.

"We are working together to ensure the base is transferred smoothly to the Iraqi Air Force according to the security agreement," said Anwar. He added, "We have tremendous support from the Prime Minister, the Minister of Defense, and the US Air Force."

The two generals saw firsthand the ongoing construction projects across the base, including a new air traffic control tower slated for completion next January.

NAS China Lake, Calif. Ferrari said the sea service has no plans at this time to procure additional MQ-9s.

Bronze Star Medals Awarded

Lt. Col. Marc L. Cherry, assigned to 12th Air Force, received a Bronze Star Medal on Sept. 14 for his meritorious service from July 2008 to July 2009 as deputy director of the combat operations division of the 609th Air and Space Operations Center in Southwest Asia.

Also receiving Bronze Star Medals for service in Iraq were: Capt. Richard S. Glade, 12th Air Force, Sept. 14; CMSgt. Dominick Tallarida, a Reservist assigned to Seymour Johnson AFB, N.C., Aug. 31; MSgt. Joseph Houlihan of Buckley AFB, Colo., Aug. 26; MSgt. Matthew Strube, Buckley, Aug. 26; TSgt. Benjamin Aylward of Malmstrom AFB, Mont., Sept. 10; TSgt. Mark Brady of Andersen AFB, Guam, Aug. 27; and TSgt. David Romanowsky, Buckley, Aug. 26.

Roy Bowden, a civilian mechanic at Robins AFB, Ga., was presented with a Bronze Star Medal on Aug. 21 for his service in Iraq as a Georgia Army National Guard sergeant. And MSgt. Shawn Williams, a senior joint terminal attack controller assigned to Ft. Hood, Tex., received a Bronze Star Medal on Aug. 31 for his actions last year in Afghanistan.

Landing Damages AWACS

An E-3 Airborne Warning and Control System aircraft from the 552nd Air Control Wing at Tinker AFB, Okla., was damaged while landing Aug. 28 at Nellis AFB, Nev., while participating in the Red Flag 09-5 air combat training exercise.

The 32-person crew safely evacuated the aircraft, and a subsequent fire was quickly extinguished by emergency response forces, Nellis officials said. The AWACS was returning from a mission when the mishap occurred.

The Air Force said it would convene a board to investigate the incident.

Laser Zaps Ground Target

Boeing said its Advanced Tactical Laser aircraft on Aug. 30 "defeated" a ground vehicle from the air with its high-power chemical laser weapon during a test with the Air Force at White Sands Missile Range, N.M.

The company said this was ATL's first air-to-ground laser engagement of a tactically representative target. "This milestone demonstrates that directed energy weapon systems will transform the battlespace and save lives by giving warfighters a speed-of-light, ultra-precision engagement capability that will dramatically reduce collateral damage," said Greg Hyslop, Boeing Missile Defense Systems general manager.

ATL is a modified C-130H aircraft that fires a powerful laser beam out of a belly turret. Boeing and the Air Force are in the midst of an extended user evaluation of ATL.

Iraqi F-16 Options Weighed

The Air Force is mulling options to provide Iraq with F-16 fighters to protect its airspace by the time of the planned US pullout in 2011.

Reuters news wire service reported Sept. 2 that scenarios, including new-build aircraft and excess-inventory USAF assets, are being explored in an air sovereignty study led by Air Forces Central that

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Senior Staff Changes

RETIREMENTS: Gen. John D. W. **Corley,** Lt. Gen. Loyd S. **Utterback,** Brig. Gen. Jimmie C. **Jackson Jr.,** Brig. Gen. Janet Anthea **Therianos,** Brig. Gen. Paula G. **Thornhill. AFRC:** Maj. Gen. Clay T. **McCutchan,** Brig. Gen. Michael C. **Dudzik.**

CHANGES: Maj. Gen. Eric E. **Fiel,** from Dir., Ctr. for Force Structure, Rqmts., Resources, & Strat. Assessments, SOCOM, MacDill AFB, Fla., to C/S, SOCOM, MacDill AFB, Fla. ... Brig. Gen. Morris E. **Haase,** from C/S, SOCOM, MacDill AFB, Fla., to Dir., Ctr. for Force Structure, Rqmts., Resources, & Strat. Assessments, SOCOM, MacDill AFB, Fla. ... Lt. Gen. (sel.) Ralph J. **Jodice II,** from Cmdr., AF District of Washington, Andrews AFB, Md., to Cmdr., Allied Air Component Command Headquarters Izmir, USAFE, Izmir, Turkey ... Lt. Gen. (sel.) Christopher D. **Miller,** from Spec. Asst. to the Vice C/S, USAF, Pentagon, to the DCS, Strat. P&P, USAF, Pentagon ... Lt. Gen. (sel.) William J. **Rew,** from Dir., Operational Planning, Policy, & Strategy, DCS, Ops., P&R, USAF, Pentagon, to Vice Cmdr., ACC, Langley AFB, Va.

SENIOR EXECUTIVE SERVICE CHANGES: Douglas M. **Bennett,** to Assoc. Dep. Asst. Secy., Financial Ops., Office of the Asst. SECAF, Financial Mgmt. & Comptroller, Pentagon ... William H. **Booth Sr.,** to Dep. Dir., Manpower, Orgn., & Resources, DCS. Manpower, Personnel, & Svcs., USAF, Pentagon ... Robert H. **Chase Jr.,** to Dep. Dir., Ops., Interagency Action Group, CENTCOM, MacDill AFB, Fla. ... Sheila M. **Earle,** to Principal Dep. Asst. SECAF for Manpower & Reserve Affairs, OSAF, Pentagon ... Todd A. **Fore,** to Exec. Dir., AFPC, Randolph AFB, Tex. ... Mark H. **Johnson,** to Dir., Jt. Info. Ops. Ctr., STRATCOM, Lackland AFB, Tex. ... Anthony P. **Reardon,** to Dir. of Staff, LL, OSAF, Washington, D.C. ... Rancall G. **Walden,** to Dir., Info. Dominance Prgms., Office of the Asst. SECAF (Acq.), Pentagon ... John A. **Wilcox,** to Chief Info. Officer, SOCOM, MacDill AFB, Fla.

COMMAND CHIEF MASTER SERGEANT CHANGES: Brooke P. **McLean,** to Command Chief Master Sergeant, PACAF, Hickam AFB, Hawaii ... David E. **Spector,** to Command Chief Master Sergeant, AMC, Scott AFB, Ill. ▪

is due for submittal to Defense Secretary Robert M. Gates before year's end. US and Iraqi officials reportedly discussed the fighter issue during Gates' visit to Baghdad in July.

In a related development, the *New York Times* reported Aug. 30 that Iraqi officials have discovered that Iraq owns 19 MiG-21 and MiG-23 fighters that are in storage in Serbia and in need of restoration. They could potentially serve as an interim solution until F-16s are available.

Cyber Building Expands

Air Force officials broke ground Sept. 1 at Hurlburt Field, Fla., on the building expansion project for the 39th Information Operations Squadron, currently USAF's only cyber and IO formal training unit.

The project will add 4,500 square feet to the unit's existing 17,000-square-foot structure. The new facilities will accommodate four additional classrooms, an observation room, and a simulation room.

The 39th IOS is a detached component of the 688th Information Operations Wing at Lackland AFB, Tex. The wing was recently integrated into 24th Air Force, also at Lackland. The new numbered air force under Air Force Space Command that will lead the service's cyber operations.

McGuire Cleanup Agreed

The Air Force and Environmental Protection Agency reached an agreement on the cleanup of the McGuire AFB, N.J., superfund site, EPA announced Sept. 18.

George Pavlou, acting EPA regional administrator, called the agreement "a significant milestone" since the base's inclusion in 1999 on the EPA's National Priorities List of most hazardous waste sites.

Although McGuire, as of Oct. 1, is now part of Joint Base McGuire-Dix-Lakehurst under the terms of BRAC 2005, the EPA said the agreement has established "a framework and detailed schedule for developing, implementing, and monitoring appropriate response actions" for McGuire proper. Public comment on the agreement was due to EPA by Nov. 2.

Retired Officer Spy Convicted

A jury on Sept. 25 convicted James W. Fondren Jr., a retired USAF lieutenant colonel and former Pentagon civilian employee, of passing classified information to the Chinese government. He faces up to 20 years in prison when he is sentenced in January.

Fondren, 62, provided the classified information from November 2004 to February 2008 to Tai Shen Kuo, a naturalized US citizen from Taiwan who was a Chinese spy, while Fondren was deputy director of the Washington, D.C., liaison office of US Pacific Command. The trial began Sept. 21 in US District Court in Alexandria, Va.

The Examiner of Washington, D.C., reported Sept. 21 that Kuo was convicted of espionage in 2008, and is serving a 15-year sentence. He was a chief witness against Fondren at the latter's trial, in the hopes of reducing his own prison term, according to the newspaper.

Squadron Deactivation Completed

After nearly two years and more than 29,000 man hours, members of the 341st Maintenance Group at Malmstrom AFB, Mont., on Aug. 23 completed the maintenance tasks associated with the deactivation of the 564th Missile Squadron.

With the US decision, courtesy of the 2006 Quadrennial Defense Review, to re-

Final KC-135E Tanker Retired

The Air Force sent the last of its Eisenhower-era KC-135E tanker aircraft into retirement on Sept. 23 when a Maine Air National Guard team flew aircraft No. 56-3630 from the 101st Air Refueling Wing at Bangor to the "Boneyard" at Davis-Monthan AFB, Ariz.

There, the 50-p us-year-old aircraft will serve as a parts supplier for the hundreds of slightly younger KC-135R/T models still serving in the fleet. While No. 3630 will not fly again, it could serve "another 15 to 20 years as we harvest parts off it," explained Col. Tom Schneider, 309th AMARG commander.

Aircraft No. 56-3630 spent the past 20 years with the Maine Air Guard, and, in its heyday it set a speed record, flying from New York to London and back in 12 hours.

"We are proud of the heritage of this aircraft," said Col. John Thomas, commander of ANG's 101st Maintenance Group. He added, "This aircraft was delivered to the active duty in 1958 and has served through the Cold War, went to Vietnam a couple of times, and served in the current contingencies."

The Air Force began retiring the E models, which were built from 1956 to 1961, in 2004. A total of 74 KC-135Es will be in storage. They could be restored to service, if necessary. Other KC-135Es will be stripped of parts, as needed; 10 will serve as static displays; and three will be ground instructional trainers.

The Air Force aims to field before the end of next decade the KC-X tanker, followed by two more increments, eventually replacing all the KC-135s by around 2050 at a rate of 15 to 18 aircraft per year.

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Photo by Jonathan Chuck

Aloha Means Goodbye: *The last two F-15A aircraft (this is one of them) left Hickam AFB, Hawaii, on Sept. 22. The 199th Fighter Squadron has operated the F-15A from Hickam for 22 years. The 199th will operate F-15Cs until the transition to the F-22 Raptor is complete. The first F-22 is due to arrive in the summer of 2010.*

duce the nation's Minuteman III ICBM force by 50 missiles to 450, the unit was picked for deactivation. Although Malmstrom officials held the squadron's official inactivation ceremony in August 2008, these maintainers actually began the deactivation process in October 2007, which involved pulling the squadron's 50 missiles and all major equipment from its 50 launch facilities and five missile alert facilities, which are entering caretaker status.

Fighter Wing Nears New Mission

New Mexico Gov. Bill Richardson announced Sept. 17 that the New Mexico Air National Guard's 150th Fighter Wing would have a new mission after it sheds its F-16s next year by becoming an associate of the active duty 58th Special Operations Wing at Kirtland Air Force Base.

However, on the following day, KRQE-TV in Albuquerque, N.M., reported that the details of the agreement were "predecisional" and still had to be worked out. Richardson, too, per KRQE, acknowledged that the new mission rested on a "handshake" understanding at that point, but that such handshake agreements are "usually honored."

State officials have been working to find a mission for the unit since the Air Force issued its 2010 fighter cut list in May that would strip the wing of its 18 F-16s.

Langley Wind Tunnel Closes

The full-scale wind tunnel at Langley AFB, Va., the nation's third largest, closed its doors on Sept. 4 after 78 years of operations. Built in 1930, the 30-by-60-foot tunnel served a vital role in aerodynamic testing and research, from biplanes to experimental aircraft. From 1931 to 1944, it was the largest wind tunnel in the world.

Nearly every fighter aircraft that came along after 1930 up to the Navy F/A-18 was tested there—as were NASA's Mercury re-entry capsule, NASCAR vehicles, and submarines. Most recently Boeing's X-48 experimental Blended Wing Body aircraft was analyzed in the tunnel.

"It's not possible to walk into this wind tunnel and not feel like you're walking amongst some of the pioneers in aviation," said Bob Ash, professor of aerospace engineering at Old Dominion University, which ran the facility. ■

First F-16s Deploy to Afghanistan

A combined force of active duty and Reserve airmen from Hill AFB, Utah, in July deployed with their F-16 fighters to Bagram Air Base to support operations in Afghanistan. According to a Bagram release from Sept. 20, this was the first F-16 complement to operate in that nation.

Members of the active duty 388th Fighter Wing and Air Force Reserve Command 419th Fighter Wing—as a newly formed associate unit—deployed together for the first time in 2007, but to Iraq.

The Utah F-16s can provide close air support among other missions. For example, they supported the Afghan Presidential election on Aug. 20.

News Notes

■ The Air Force announced Aug. 29 that the F-15E fleet had eclipsed 8,000 combat flight hours during a mission of the 336th Expeditionary Fighter Squadron from Bagram AB, Afghanistan. The milestone was passed when an F-15E provided overhead security during a helicopter resupply mission.

■ Air Force Reserve Command reached its 2009 annual enlisted accession goal on Aug. 3, bringing in 8,800 recruits nearly two full months ahead of the end of the fiscal year—the earliest on record. It was the ninth straight year that AFRC's recruiting force reached this goal.

■ The Air Force announced Sept. 15 that it had ushered in the first five former enlisted tactical air control party airmen—fresh from Officer Training School—to the new air liaison officer career field, designated 13L.

■ DOD's Space Test Program, administered by Space and Missile Systems Center's Space Development and Test Wing, Kirtland AFB, N.M., completed its 200th mission on Sept. 10, 2009 (US date), launching two payloads aboard a Japanese rocket.

■ Air Mobility Command's 724th Air Mobility Squadron at Aviano AB, Italy, officially opened its new 34,000-plus-square-foot, $10 million passenger and air freight terminal on Sept. 10. The new terminal replaced a 54-year-old facility.

■ Air Combat Command said Sept. 22 its investigators could not determine the exact reason why an MQ-1 Predator unmanned aerial vehicle lost contact with its ground control station and crashed May 13 in Afghanistan. Factors such as weather and aircrew performance were ruled out.

■ Officials at Langley AFB, Va., announced Sept. 2 that the base has joined with the city of Hampton to conduct a joint land use study. Hampton reportedly prompted the study as a means to avoid potential conflicts between the base and new development in the area.

■ After a three-year hiatus, the hard-copy version of the Air Force's "Afterburner" retiree newsletter is returning, the service announced Sept. 1. Three annual hard-copy issues are envisioned since not every retiree has computer access to view the electronic version.

■ SSgt. Chris Harlan, with the 965th Airborne Air Control Squadron at Tinker AFB, Okla., received the Airman's Medal in September for his part in helping save four college exchange students from drowning at Turner Falls in Oklahoma in 2007. ■

USAF photo by MSgt. Andy Dunaway

Above: An F-22A is poised in front of a hardened shelter on the ramp at Kadena AB, Japan. Below: An E-3 AWACS takes off.

Predators to Iraq, said Gen. Gary L. North, the former AFCENT commander who assumed command of Pacific Air Forces in August.

As airpower adapted with the war, the job of supplying and sustaining forward deployed troops has become ever more critical, said Gen. Duncan J. McNabb, head of US Transportation Command.

"The movement of our forces and the resupply of those forces [are] obviously foremost on my mind," he said. "That becomes harder [in] a place like Afghanistan."

Blistering Rates

McNabb praised the work of Air Mobility Command and the Civil Reserve Air Fleet for helping to find new logistical solutions to what is one of the most rugged regions on the planet. The use of the Joint Precision Airdrop System, the steerable, GPS guided parachute, has given coalition forces "tremendous leverage" when performing resupply, McNabb added—helping to free up valuable ground convoys and helicopters to perform other missions in country.

Combat air forces are also rising to the challenge of today's wars, but some leaders raised concerns about long-term effects of the demands. At Air Force Special Operations Command, Lt. Gen. Donald C. Wurster praised the tireless work of the AC-130 gunship crews, noting that they are flying at blistering rates and that the average gunship crew can claim credit for the destruction of "hundreds of our enemies." But the oldest of the fleet, the AC-130Hs, have been flying since the early 1970s.

"We've got the nose up on that and we're in a climb, but it's a long way to level off," Wurster said of his Vietnam-era C-130 fleet, which includes many of the gunships and other special operations transport aircraft.

The hole in the force structure that troubles him most, however, is the lack of forward based special operations rotorcraft. The CV-22 is coming online slowly and in limited numbers, and the MH-53 Pave Low fleet is now retired. "We do not have permanently based assets" in the Pacific, Europe, or Africa, Wurster said, adding that this was a topic he'd bring up in 2012 budget discussions.

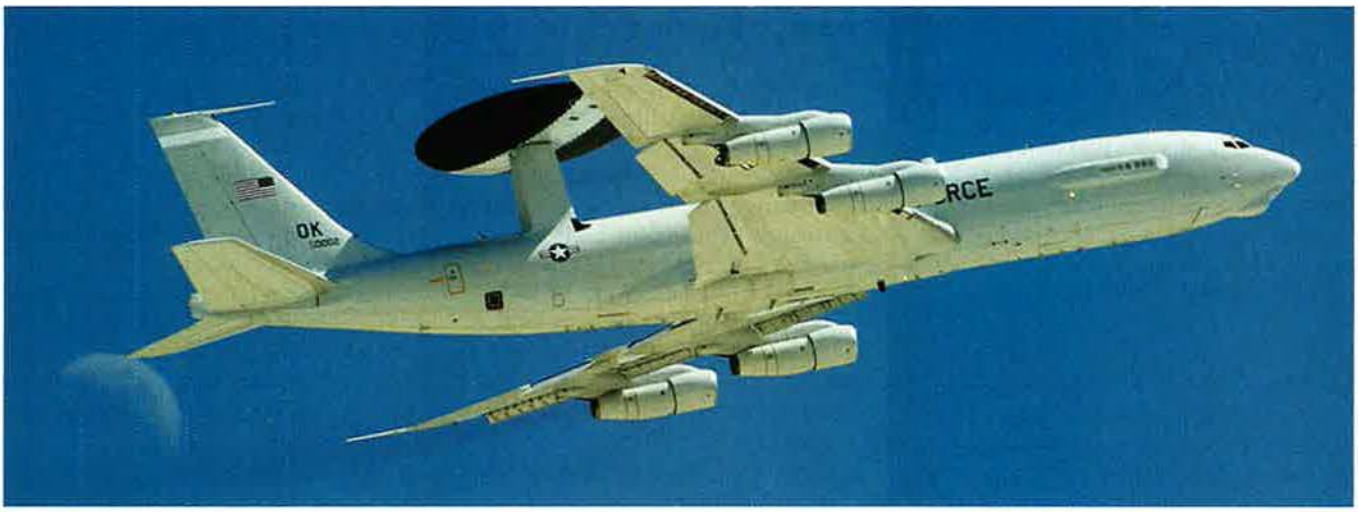
ACC's Fraser, having taken over the command just days before, raised concerns about how the explosion of airmen needed in the UAV field would affect professional development. "We've got to get to some sort of normalization," he said, because the relentless push to add more CAPs is putting large demands on airmen.

"Basically, what we have going on in this career field ... is the inability then to allow those who are operating these systems to move on to continue their careers and be developed," Fraser said. If the Air Force is not careful, it will mortgage its future by burning out the UAV cadre, and the service runs the risk of the UAV operator being perceived as part of a "Stop-Loss" career field, Fraser warned. The demands placed on unmanned vehicle operators could preclude them from attending Air University in preparation for higher leadership positions, for example.

"If we don't normalize it, before too long, we may have some real problems out there," Fraser said.

For the mobility force, the rise and fall of optempo has given way to a "steady state" of missions across the globe, the head of Air Mobility Command said.

Air mobility forces have had a "banner year" since last September, Gen. Arthur J. Lichte said, noting that the fleet continues to break records on a regular basis—more than 13.1 million passengers have been



USAF photo by SMSgt. Robert J. Sabonis

USAF photo by SrA. Steele C. G. Britton

Left: Members of USAF's 376th Expeditionary Aircraft Maintenance Squadron and Kyrgyzstan Ministry of Defense representatives examine the refueling boom of a KC-135 Stratotanker at Manas AB, Kyrgyzstan. Below: Two F-15s form up with a Lithuanian Air Force L-39 Albatross on a training exercise over Siauliai, Lithuania.

USAF photo

flown on AMC airlift since September 2008.

Missions have ranged from humanitarian relief efforts in Guatemala to transport of heavy equipment for United Nations and African Union peacekeepers operating in Sudan's Darfur region.

AMC also moved assets to aid the Afghan buildup this year, establishing a shuttle route using C-17s from Manas AB, Kyrgyzstan, and deploying an Army Stryker brigade to Afghanistan by flying it up from Diego Garcia.

Despite the high operations tempo, the Air Force has to make room on its ramps and intends to retire some of its oldest C-5As, as new C-17s come online. With Congress now appropriating funds for 213 C-17s (up from 205), USAF needs space to operate those aircraft, Lichte said.

AMC has drawn up a list of the poorest performers of the fleet, and for every C-17 over 205, the Air Force plans to make a "one-for-one exchange" by retiring an underperforming C-5A.

However, "if we're not allowed to manage our fleet, it creates lots of problems," he said—and relief from Congress may finally be on its way. Senate appropriators approved language for the Fiscal 2010 defense appropriations bill that would lift the C-5's Congressional retirement restriction, but Lichte said he will not proceed until he has signed legislation on his desk.

And while the health of the mobility fleet is fairly solid, Lichte gave a D to his tanker fleet, cautioning "if we don't get [a replacement] on contract pretty soon, we'll be giving it an F."

The KC-135 and KC-10 fleets are performing admirably, but in the next 10 years, the cost to keep them flying is going to explode, as the Air Force will have to look at reskinning and rewiring some of the remaining KC-135s. This could swell sustainment costs for the fleet into the neighborhood of $6 billion a year.

F-35 Basing Questions

AMC maintainers are working hard to find new efficiencies, such as improvements to extend the life of the fleet's braking system. KC-135 trim stabilizers have been modified as well. Seven to 10 hours on the ground are required for every hour a tanker flies in the air, Lichte said, a ratio which will rise every year the KC-X replacement is delayed. Soon, he added, the Air Force will even have to look at modernizing the avionics of the "new" tanker—the 25-year-old KC-10.

"We need to keep the KC-10s flying until about the year 2045," Lichte said. "It's important that we continue to take care of modifications."

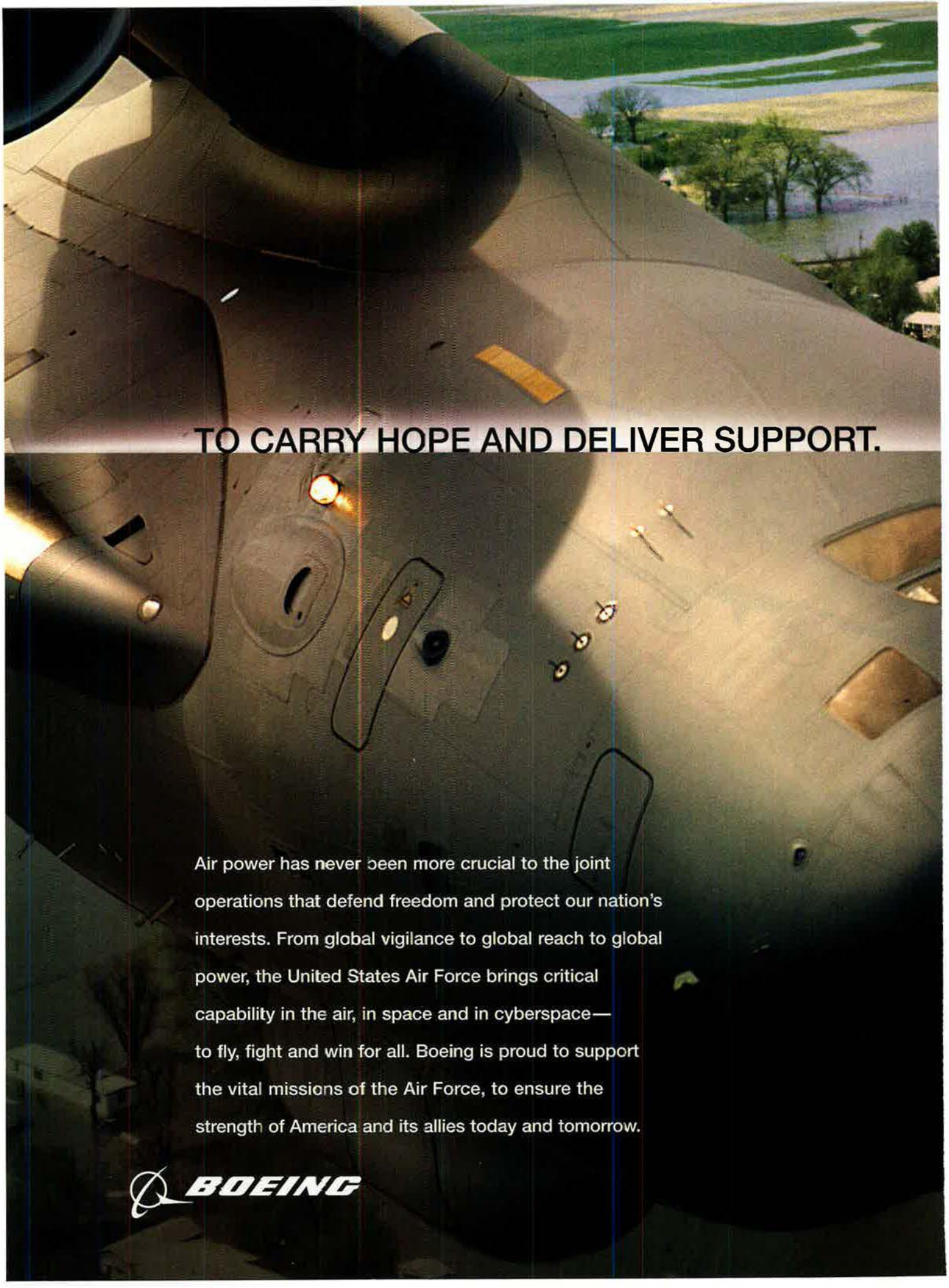
Unlike the uncertain future for mobility aircraft, the future course for fighters is now reasonably well-understood, and Air Force leaders feel the service will benefit from the new arrangements—as long as the integration process for aircraft such as the F-35 is well-managed.

An unresolved issue relating to the stand-up of the Air Force's F-35 fleet is how to base the fighters for the air sovereignty alert mission—traditionally the task of the Air National Guard. Combat air force fighter reductions and scheduled retirements will soon lead to a capability shortfall for the ANG.

Lt. Gen. Harry M. Wyatt III, ANG director, noted the Guard fighter fleet's age is a bit higher on average than the active duty force, and most F-16s performing the ASA mission today will be retired by 2018. Most Air Guard units won't receive F-35s until the early 2020s, creating a fighter shortfall. Wyatt made the case that USAF should consider splitting off 30 percent of the F-35 production line once it's running full tilt by 2015 (at about 24 aircraft a year) and send them to the Guard, helping to plug the gap. By the time the Air Force has fielded around 400 of the new fighters, a large portion would then reside with the ANG, creating a more rounded force, better able to address both homeland defense missions and support deployments.

USAF and the Air Guard are studying the situation, said Gen. Craig R. McKinley, National Guard Bureau chief. McKinley agreed that sustaining the ASA mission will be difficult—and cautioned any solution will be "complicated."

The Air Reserve Components are critical to the deployment of the F-35 and success in other Air Force missions, said Lt. Gen. Charles E. Stenner Jr., head of Air Force Reserve Command. The key in these missions is to ensure a "continuity of service" for separating active duty airmen who wish to continue serving. Smooth transitions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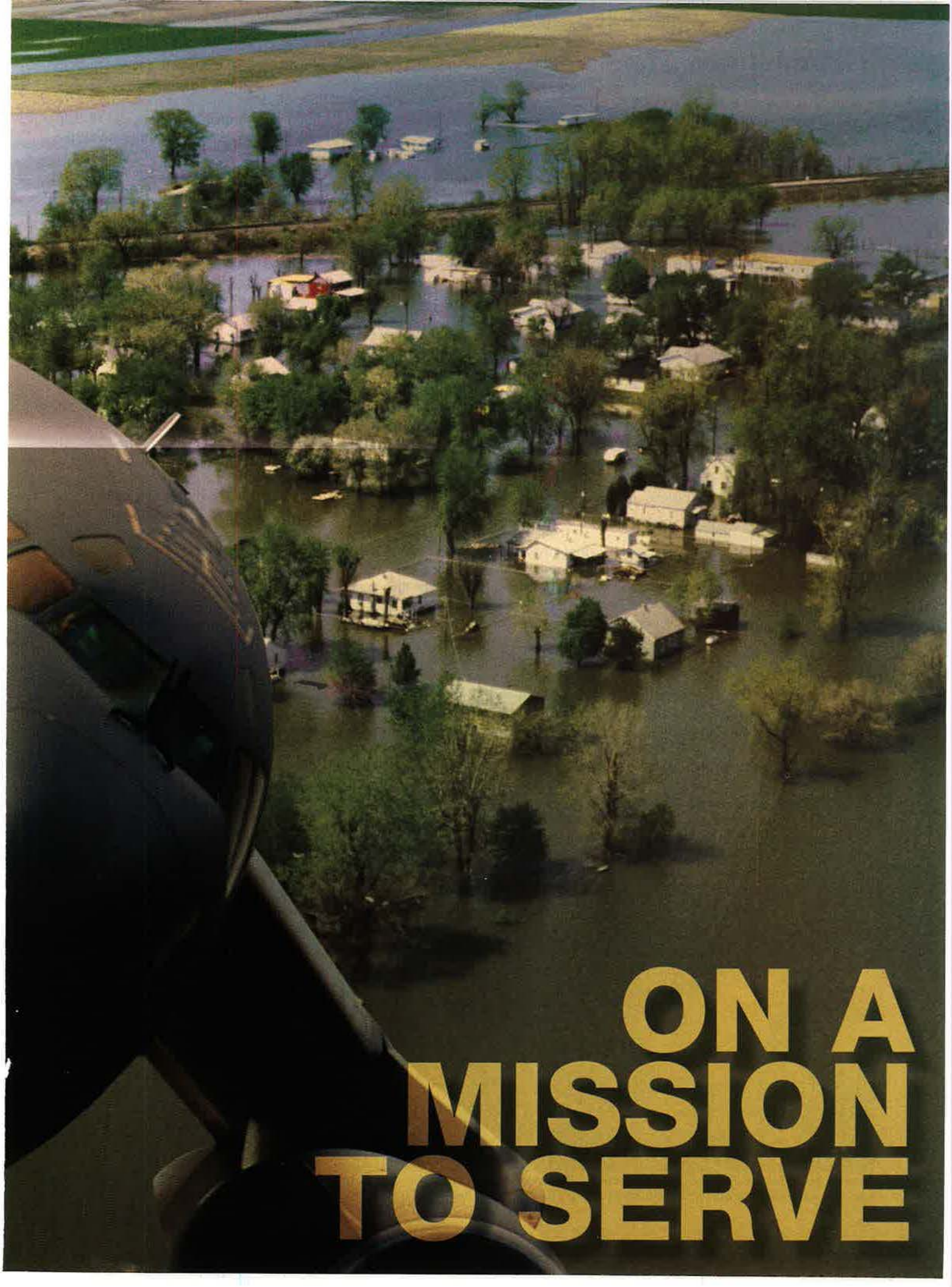

ON A MISSION TO SERVE

will allow AFRC to help "fix" stressed active duty career fields.

New missions such as UAV operations and intelligence analysis in some cases allow Reservists to volunteer for deployments, without separation from their families or employers, by joining Reserve intelligence or cyber warfare units.

Loss of "dwell time" spent at home station is a huge concern for the Reserve, Stenner said. For every drop in the deployment ratio (from a one-to-five ratio to a one-to-four, for example), the Air Force loses 10 percent of its Reserve airmen. The Fiscal 2012 budget, Stenner added, will work to lower the operations tempo on airmen working in security forces, engineering, and unmanned aerial vehicle operations.

The unique capabilities and assets of the Air Guard have already proved invaluable to the expansion of UAV missions, Wyatt noted. Units are operating or standing up flight operations for MQ-1 Predators and MQ-9 Reapers in California, Arizona, Texas, New York, and other locations. Many of these units are filled with veterans of fighter operations who have moved on, are highly skilled, and are volunteering for the growth-mission area as the Pentagon pushes UAV expansion.

USAF's newest domain of operations has great opportunities for active and reserve component airmen as well. Gen. C. Robert Kehler, head of Air Force Space Command, said that today's airmen are better than ever at exploiting the connectivity between air, space, and cyberspace. Since 2001, airmen have utilized "cross domain integration" unlike in any other conflict.

"I think our airmen have broken the code on how you integrate air and space," Kehler said.

Airmen have recognized how space fits into all aspects of the fight, from GPS satellites to secure communications. Kehler noted the inside of a ground control element is completely separated from its geographical location—thanks to space-based capabilities. "If you close the door, you don't know where you are. ... You're in everybody's [area of responsibility]. That's a huge change."

A Growth Industry

The Air Force's cyber warfare arm, 24th Air Force is now building capability and consolidating mission areas, he said. The 67th Network Warfare Wing and the 688th Information Operations Wing, both at Lackland AFB, Tex., are up and running. Approval took place Oct. 5 for the stand-up of the third cyber wing, the 689th Combat Communications Wing. The three wings will help stabilize the service's networks and focus on mission assurance, Kehler said, and help standardize the many computer networks spanning the Air Force.

"It isn't about trying to protect everything, everywhere, all the time," Kehler said of mission assurance efforts. "It's about making sure we can do the mission under duress." The goal of Air Force cyber warfare airmen is to make it difficult for adversaries to operate in cyberspace.

Outside of the war zone, USAF's commanders are increasingly concerned with partnership-building activities. Capable and interoperable allies are critical to the success of military missions worldwide, from humanitarian efforts to ensuring interoperable communications in war.

Gen. Stephen R. Lorenz, head of Air Education and Training Command, said partnership building has received attention at the highest levels of the service.

"I think it's a growth industry," Lorenz said, noting the service's air advisor program has expanded and a strategic campaign plan has been assembled to integrate all aspects of development for both US airmen and allies and to help commanders reach out to allies around the world. A growing share of joint engagement tasks is falling on general-purpose forces, USAFE's Brady pointed out, which makes proper resourcing and balancing even more critical.

North, the new PACAF commander, echoed this sentiment. Soon after arriving on the job, he began making plans to visit with key Pacific allies such as Japan in late September, he told reporters. Japan's government is studying its future aircraft requirements and may still pursue an export F-22 variant, although time is running out on that option.

Despite their geographic distance, the expeditionary nature of the modern Air Force means both USAFE and PACAF contribute heavily to the war effort in Asia. Brady said that of his eight fighter squadrons, anywhere from one to three of them are in Iraq or Afghanistan at any one time. By next year, USAFE will have only 150 permanently based fighters on the European continent—at a time when the demands of engagement and capacity-building efforts with new European allies are expanding.

In Europe, engagement with allies is vital to long-term US strategy. The NATO alliance has expanded from 16 nations to 28 in just over a decade. But with that expansion, serious capability gaps have emerged with allies. "I think it's getting a little worse," Brady said, because only five nations meet the NATO goal of spending at least two percent of GDP on defense (including the United States).

There are three tiers of air capability in NATO, Brady said. Thirteen nations are highly effective, interoperable, and deployable—the top tier.

Six more allies have top-notch aviators but field mostly Warsaw Pact-era equipment and are therefore not generally deployable.

The rest are "nascent" and support barely functional air elements that need additional investment.

Many of these allies with developing air arms have deployed forces to Iraq and Afghanistan, but lack modernized equipment and training. This is a gap USAFE and US European Command must help close, Brady said.

"Our policies and actions as nations and air forces can affect both the will and the capabilities of these nations today and going forward," he said. ■

USAF photo by SSgt. Patrick Dixon

Airmen from the 1st Combat Communications Squadron at Ramstein AB, Germany, set up a satellite dish during a training exercise at Aviano AB, Italy.

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Toward a "Community" of Airmen

Some of USAF's top command chief master sergeants explained the need to treat airmen like family.

By Peter Grier

In a rare opportunity to sit down as a group at AFA's Air & Space Conference, command chief master sergeants of four Air Force major commands and NORAD emphasized the urgent need to build strong communities of airmen throughout the Total Force.

This is the Year of the Air Force Family, and each of the chiefs agreed on the importance of helping service members cohere into mutually reinforcing groups.

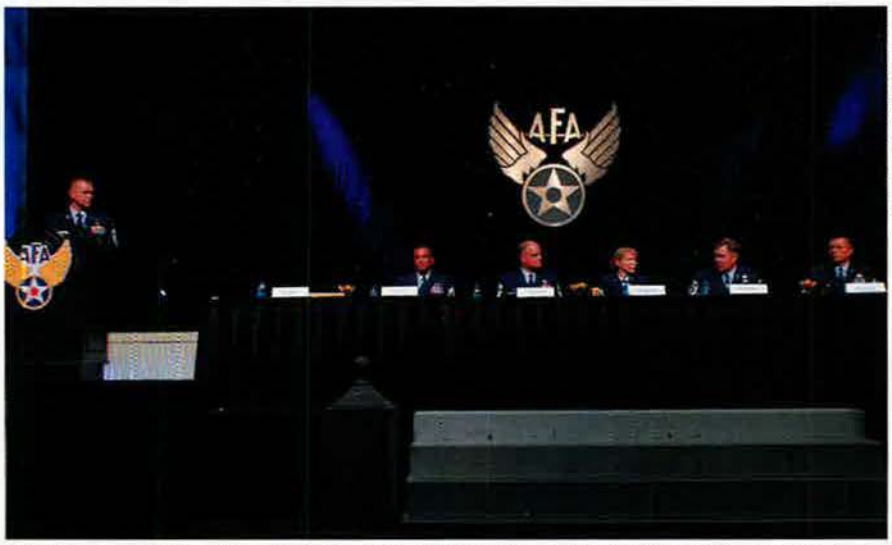
Guard and Reserve forces face a special set of challenges, the chiefs observed at the Sept. 15 event. They have always had roots within their civilian communities, said CMSgt. Dwight D. Badgett, command chief for Air Force Reserve Command, but ties to the Air Force community are sometimes not as strong.

"We, as a reserve force, need to do a little better job on taking care of our families," said Badgett.

When active duty airmen return from deployments, they go right back into their units, where there are supervisors to watch them and monitor how their reintegration is going, Badgett noted. When members of the Guard and Reserve return from deployments, they have no such safety net. They just go home.

"So we have to do a better job of addressing that. ...We have a ways to go," said Badgett.

In Air Force Special Operations Command, senior enlisted members will be emphasizing personal contact with airmen, said AFSOC Command CMSgt. Michael P. Gilbert.



USAF photo by MSgt. Stan Parker

CMSAF James Roy (left) moderated the command chiefs' discussion panel: Seated l-r: CMSgt. Joseph Barron Jr., CMSgt. Dwight Badgett, CMSgt. Pamela Derrow, CMSgt. Michael Gilbert, and CMSgt. Allen Usry.

Gilbert noted that when he was a young airman, if he had shown up on base with a flashy new Mustang, there "would have been a fistfight among the NCOs over who could come over and counsel me first on where did you buy it? How can you afford it?"

Today the service is missing some of that personal concern, he said.

Ability To Go Deep

"I look at our NCO corps—we are phenomenal in so many things, but this piece we're letting slip," he said.

At a recent forum of 16 senior NCOs, all of whom are supervisors, Gilbert asked how many had been to the homes of their airmen, and four raised their hands. The same four were the only meeting participants who had had airmen over to their own homes.

"When you see failure among our airmen, invariably you see they're not getting the leadership inputs that they should get," said Gilbert.

"Eyes-on every day is extremely important," said CMSgt. W. Allen Usry, command chief for NORAD and US Northern Command.

Command CMSgt. Joseph E. Barron Jr. of Air Mobility Command seconded that point, and added that senior NCOs need to hold airmen to the same high standards they would expect of themselves.

"None of us should ever settle for mediocrity," said Barron.

CMSgt. Pamela A. Derrow, command chief for US Air Forces in

Europe, said that there is an ongoing "headquarters level" look at how the Air Force trains its people for war.

Whether airmen on such a deployment are going to be serving within the perimeter of a base, or traveling outside the perimeter, the service is going to tailor training to make sure personnel get what they need to be successful, said Derrow.

"Trust me, [Air Force leaders] want to make sure that our airmen are trained and protected as much as possible," she said.

Gilbert noted that the record of the service speaks for itself, in that airmen are "kicking butt" doing tasks in war zones that they were not originally assessed to do.

"Transporters" are an excellent example, said Gilbert. One day, someone taps them on the shoulder and says they are going to be sent somewhere for two months of training, and soon they are driving along some of the most dangerous roads in the world.

"The Air Force has responded correctly" and has given these airmen the training they needed to do the job, and to do it right, said Gilbert.

Long-term changes are also needed to bolster expeditionary capabilities. The Air Force needs to take care of the airmen they ask so much of, and build the force the US is going to need over the next decade or so.

Right now, "our ability to go deep into some country some night" and put in a 60-man special operations force is "questionable," said Gilbert.

Asked about the state of Air Force morale, the chiefs noted that the current pace of deployments is hard on airmen—but that the job is something they all signed up to do.

"Anybody at this point, post-9/11, that is still in our Air Force, ... gets it," said Gilbert.

The chiefs agreed that the question they get asked most about deployments is not, "When do I have to go?" but "When do I get to go?"

That is true for the Reserve and Guard as well as active duty units. "We have yet to not fill a tasking," Badgett said.

Service recruiting and retention numbers remain strong, added AMC's Barron.

The weak economy has helped out a bit in this area, but private-sector job prospects are only a small part of the equation. The majority of the Air Force entered military service since the terrorist attacks of 9/11, and the current pace of action is all they know.

USAF photo by James M. Bowman

A1C Daniel Anderson (l), A1C Marvin Richardson (r), and Amn. Rodrigo Maranon (back) load pallets onto a C-17. All are transportation specialists, a field that has stood up to unusual challenges in the wars in Southwest Asia.

"What I begin to wonder about, if things start slowing down, how are they going to feel?" asked Barron.

Back at home station, enlisted professional military education is under review; a number of changes have been made, or are about to be made. For instance, there have been many complaints that PME does not occur at the right times in careers, and that is being addressed, said Derrow.

Education Is Key

"Same thing" on the curriculum, she said. "There's a lot of work being done on the curriculum to make sure that it's the right training, the right time, and at the right level."

Usry said there are efforts to make sure airmen can benefit from sister service PME or similar training offered by partner nations.

His own command, NORAD, would be a perfect place to take some American airmen and put them through the Canadian PME system, said Usry, and that is "one of the things we're looking at right now."

Badgett of AFRC said there is a wide range of opportunities in the civilian educational system, and the service needs to continue to encourage young airmen to pursue those options and not just military PME. "I think we need to look at the entire educational experience," he said.

The chiefs expressed skepticism about the idea of privatizing the dorms used by unaccompanied junior airmen. Such a move might make it more difficult to lead that community, said Gilbert, if the airmen were placed in privatized housing where senior NCOs had limited access.

Badgett added that the Air Force sometimes looks at programs with an eye toward saving money, but in this case, that approach might not be appropriate. There is a lot of strain on 19- and 20-year-old airmen who are given enormous responsibilities and are trusted with pieces of equipment worth hundreds of millions of dollars.

"We need to make [it] feel more like a community, not like we're trying to push [them] away," said Badgett.

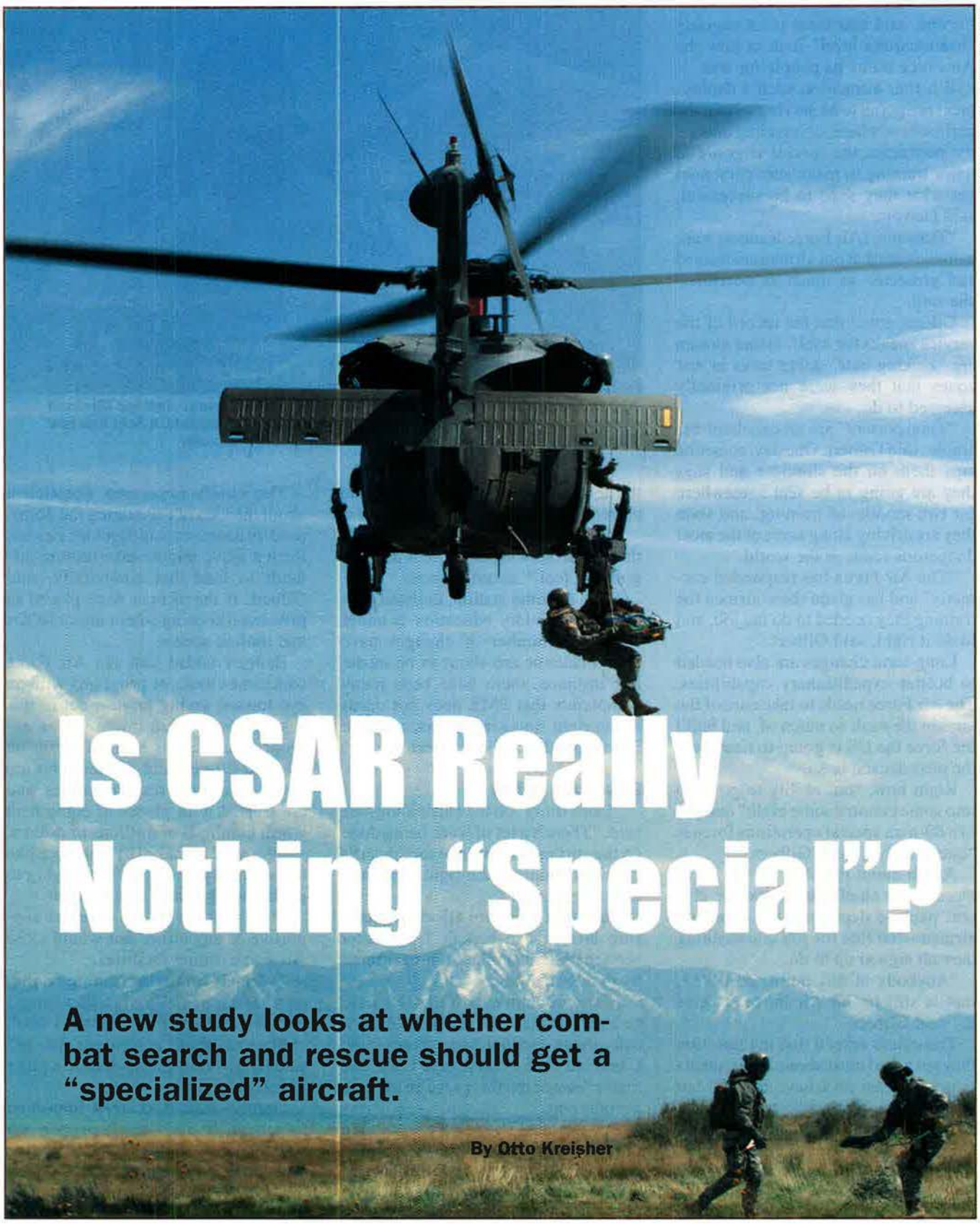
Similarly, the chiefs were not supportive of any effort that would close Air Force dining facilities.

"When it comes to a dining facility on a base, especially when there aren't a lot of other options around, I don't really care what the business case is," said Usry. "Young airmen need a place to eat."

Derrow said it is very important to remember that single airmen are also members of the Air Force family, whether they live in a dorm or off base.

USAFE is trying to spruce up dorms to make them seem more homelike for airmen, she said, because sometimes "you go in there and there is not that sense of home." ■

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 College Park Century," appeared in the September issue.*



USAF photo by MSgt. Kevin J. Gruenwald

Is CSAR Really Nothing "Special"?

A new study looks at whether combat search and rescue should get a "specialized" aircraft.

By Otto Kreisher

For nearly 60 years, American fliers have taken off for combat missions with the knowledge that, if they went down in enemy territory, other US airmen would risk their lives in an effort to rescue them.

Most of those hazardous missions, commonly known as combat search and rescue, have been flown by Air Force units specifically trained and equipped for CSAR operations. Their history is marked with countless acts of courage and sacrifice, and the recovery of thousands of pilots and crewmen.

Now, the future of those units is in doubt—along with the Air Force's decade-long effort to obtain newer and better combat rescue helicopters.

Facing page: Soldiers are hoisted aboard a USAF HH-60 Pave Hawk over the Utah Test and Training Range during a CSAR integration exercise.

USAF photo by MSgt. Robert R. Hargreaves Jr.

USAF photo by TSgt. Parker Gyokeres

Left: A pararescueman descends on a rope attached to an HH-60G Pave Hawk during a CSAR team exercise supporting Operation Iraqi Freedom. Right: Two Pave Hawks maneuver into landing position during an exercise at Moody AFB, Ga.

Defense Secretary Robert M. Gates threw the future of CSAR into question on April 6 when he canceled the controversial CSAR-X helicopter replacement program.

Gates eliminated CSAR-X funding from the Fiscal 2010 budget just as the Air Force was preparing its second attempt to award a contract for new helicopters to replace its fleet of old and generally underperforming HH-60 Pave Hawks.

In addition to terminating the CSAR modernization effort, Gates said there was a "fundamental question of whether this important mission can only be accomplished by yet another single-service solution, with a single-purpose aircraft." He said the Defense Department would "take a fresh look" at the requirements for the mission and develop "a more sustainable approach."

The study would determine whether there is a requirement for a "specialized" CSAR aircraft or whether it should be a "joint capability," provided by multiple services with existing assets.

That re-examination not only threatens the Air Force's long-standing role as the CSAR specialists, but also complicates the already challenging task of maintaining the dedicated USAF rescue forces.

As Gen. Norton A. Schwartz, Air Force Chief of Staff, noted, "We canceled a platform. We didn't cancel the mission."

Personnel Recovery

Military leaders have been concerned for more than a decade that their current dedicated CSAR helicopter, the HH-60G, does not have all of capabilities needed for the mission. It had deficiencies in speed, range, cabin space, survivability, battlespace awareness, and all-weather operability.

USAF photo by SSgt. Aaron Allmon

SSgt. Ben Vorheis, a flight engineer with the 66th Expeditionary Rescue Squadron, runs a preflight inspection on an HH-60G Pave Hawk at Joint Base Balad, Iraq.

Air Force leaders had been expected to announce the winner of the second CSAR-X competition in the summer of 2009. Now they must wait to see what the study ordered by Gates determines about the future of the vital mission, now officially called "personnel recovery."

DOD "will reassess this important mission in the context of joint force capabilities," a statement from the Defense Secretary's office said. "The assessment will provide the basis to affirm or adjust current DOD policy with regard to personnel recovery; will inform the department regarding what capabilities are essential to a follow-on program for Air Force combat search and rescue aircraft; and will provide a basis from which to ensure that the national combat search and rescue capability provides for recovery of any downed, injured, or isolated service member, including [in] combat environments. We expect a reply to the Secretary's tasking in the fall time frame."

Pentagon officials said the review was being conducted by the Cost Assessment and Program Evaluation office, the Joint Staff, and Joint Forces Command. The results would be reported to the Deputy's Advisory Working Group in Gates' office.

Current military doctrine dictates that "all the services are responsible for train-

USAF photo by A1C Christina D. Pontle

USAF pararescuemen from the 48th Rescue Squadron and members of the Royal Netherlands Army practice a CSAR mission during a joint training exercise.

ing and equipping personnel recovery forces," said Lt. Col. Paul Fiorenza, branch head for special operations forces and CSAR in the assistant Air Force secretary for acquisition office.

"The Air Force is unique in that it doesn't have a geographical mission, it has a global mission. ... That drives a high level of training and equipping for that challenging mission, a high risk mission," Fiorenza added.

The Air Force also differs from the other services in that it fields squadrons of HC-130 refueling aircraft and units of highly trained pararescue jumpers (PJs) in its dedicated CSAR force, and can apply "the entire network of Air Force assets," including tactical air for close air support, intelligence, and other capabilities to support the mission, he said.

Among the other services, only the Navy has anything approaching a dedicated CSAR capability. It fields helicopters to rescue aviators who go into the water near the carriers and aviators downed by enemy action ashore.

The Navy now is deploying new multimission MH-60S Knighthawk helicopters, some of which are equipped to perform CSAR and special warfare support missions as a secondary duty. Those Knighthawks have most of the survivability and defensive systems of the HH-60Gs. The crewmen assigned that mission are specially trained and qualified, using CSAR tactics and procedures adopted from the Air Force, the Navy said.

Also, every marine expeditionary unit that deploys aboard Navy amphibious ships has a team trained to conduct the tactical recovery of aircraft and personnel (TRAP) mission.

A Marine Corps spokesman emphasized that "TRAP is not CSAR," and is not intended to be conducted against enemy resistance.

This is an important distinction: Experience has demonstrated the value of units trained and equipped to rescue other fliers in the midst of combat. Starting in the Korean War in 1950, two Air Force units—the 2nd and 3rd Air Rescue Squadrons—used SA-16 amphibious aircraft and relatively primitive H-5A helicopters to rescue downed Air Force and Navy pilots.

An official Air Force history credits the 3rd with recovering 997 US or allied personnel who had gone down behind enemy lines.

During the long air war in Vietnam, dedicated Air Force CSAR units, using specially configured HH-3 or HH-53 "Jolly Green Giant" helicopters, and frequently supported by A-1 or other attack airplanes, saved a total of 4,120 personnel, including 2,780 in combat situations.

Individual heroism and dedication brought CSAR practitioners two Medals of Honor, 38 Air Force Crosses, and numerous Silver Stars.

In Iraq and Afghanistan, Air Force CSAR forces have rescued more than 470 US or allied personnel since Sept. 11, 2001.

Official statistics reveal the danger of the mission, even when conducted by well-trained and -equipped crews. Air Force CSAR units in Vietnam lost one crewman and two aircraft for every 9.2 recoveries.

The limited number of CSAR assets means combat search and rescue has sometimes been a pickup game. For example, because no Air Force CSAR units were available, marines used CH-53E transports launched from the amphibious assault ship *Kearsarge* to rescue Air Force Capt. Scott O'Grady from the midst of Serbian troops after his F-16 was shot down in Bosnia in June 1995.

Similarly, special operations forces covered the CSAR mission during the

USAF photo

HH-3 Jolly Green Giants performed hundreds of rescues during the Vietnam War. Here, an HH-3 lands to pick up a "survivor" during a training mission in 1981.

early days of Operation Enduring Freedom in 2001 in Afghanistan. Because of shortages such as these, the Air Force had planned to expand the size of the dedicated combat rescue fleet to relieve the operational pressure on the HH-60s, which have the highest committed rate, measured by dwell-to-deployed ratio, of all US military rotary wing assets, Fiorenza said.

Active Air Force Pave Hawk units have a one-to-one deploy-to-dwell ratio, which means they are home just 180 days between each 180-day deployment. Air Guard and Air Force Reserve HH-60s, which make up 33 percent of the force, have a one-to-four deploy-to-dwell rate.

That hectic pace is required because USAF retains only 100 Pave Hawks—and four of those are not flyable due to combat damage, Fiorenza said.

The 141 new CSAR-X helicopters were to get combat rescue forces out of the low-density, high-demand bind, he said, and that long-term effort to replace the HH-60Gs was just one of three Air Force initiatives for the CSAR force.

The Army considers combat rescue to be part of the overall personnel recovery mission, usually performed by its dedicated medevac units. These units fly unarmed HH-60 Black Hawks emblazoned with large red cross emblems. Army doctrine also calls for ground units to carry out personnel recovery if the situation warrants.

If Gates decides to make CSAR truly a multiservice requirement, some of the other services would have to invest heavily in the additional capabilities required for that mission. Whatever the decision, the Air Force will still have the same problems with the HH-60s that led to the CSAR-X program in the first place.

Initially, the Air Force wanted a larger, faster, more survivable, and more reliable fleet of helicopters to replace the HH-60s. The CSAR-X program requested a readily available aircraft that could fly 316 miles, loiter for five minutes during an extraction, and return to base. The new helicopter also had to carry three PJs, in addition to the flight crew, and hold four litters for wounded.

The HH-60s have a mission radius of only 213 miles, and can carry only two PJs and two litters.

The CSAR-X program intended later to add enhancements such as terrain-clearance radar and air-to-air missiles as a defense against hostile aircraft.

CSAR-X's Decade of Difficulty

First acquired in the 1980s, the Pave Hawks were experiencing declining readiness rates a decade ago.

The Joint Requirements Oversight Council therefore approved a mission-needs statement for a replacement helicopter in 1999, initiating the CSAR-X program.

After an extensive process to draft requirements and solicit bids for new rescue helicopters, the Air Force announced on Nov. 9, 2006 it had chosen the HH-47, a modified version of Boeing's widely used twin-rotor Chinook. The HH-47 was a surprise winner, beating out proposals from Sikorsky and a Lockheed Martin-AgustaWestland team.

Even then-Air Force Chief of Staff Gen. T. Michael Moseley was surprised by the selection of the heavy-lift Chinook over Sikorsky's HH-92, an updated and larger H-60, and the US101 (the Lockheed Martin-led offer of a modified AgustaWestland EH101). Both of the rivals were medium-lift helicopters, which the Air Force had previously said was its desired size for the mission.

With a potentially $15 billion contract at stake, the losers immediately filed protests with the Government Accountability Office, citing a long list of perceived errors in the Air Force's criteria, standards, and evaluation of the bids.

Lockheed, for example, said the US101's projected life-cycle cost was about $3 billion less than the HH-47.

Air Force acquisition officials said they had determined that the HH-47 met mission requirements, could be fielded sooner and with the lower technical risk than the rivals, and that cost was not a primary criterion.

In February 2007, however, GAO ruled for the protestors on one of their many complaints, finding that the Air Force's evaluation of the life-cycle operations and support costs "was inconsistent" with the approach described in the bid solicitation.

The Air Force accepted GAO's findings and issued a revised solicitation. Although Sikorsky and Lockheed protested the new proposal, GAO rejected their complaints, which put the CSAR-X program back on the books—until Defense Secretary Robert M. Gates killed it this spring.

With CSAR-X dead, the stopgap combat search and rescue plan calls for sustaining the current fleet by correcting problems caused by the Pave Hawks' average age of 19 years. That effort received $99 million in Fiscal 2008 for safety and survivability fixes, primarily repairing structural cracks in eight aircraft with more than 7,000 hours.

The 80 percent solution

Replacing the cracked beams takes six to nine months in depot. This further degrades availability, which had dropped into the mid-60 percent and is projected to drop to 40 percent, Fiorenza noted.

There also is a short-term effort to replace the 12 lost aircraft by buying new HH-60s and the required CSAR modifications, planned for FY10 to FY12.

And while DOD is re-examining the CSAR mission, "the Air Force will be doing an assessment of requirements for sustaining the current aircraft" for the long term, Fiorenza said.

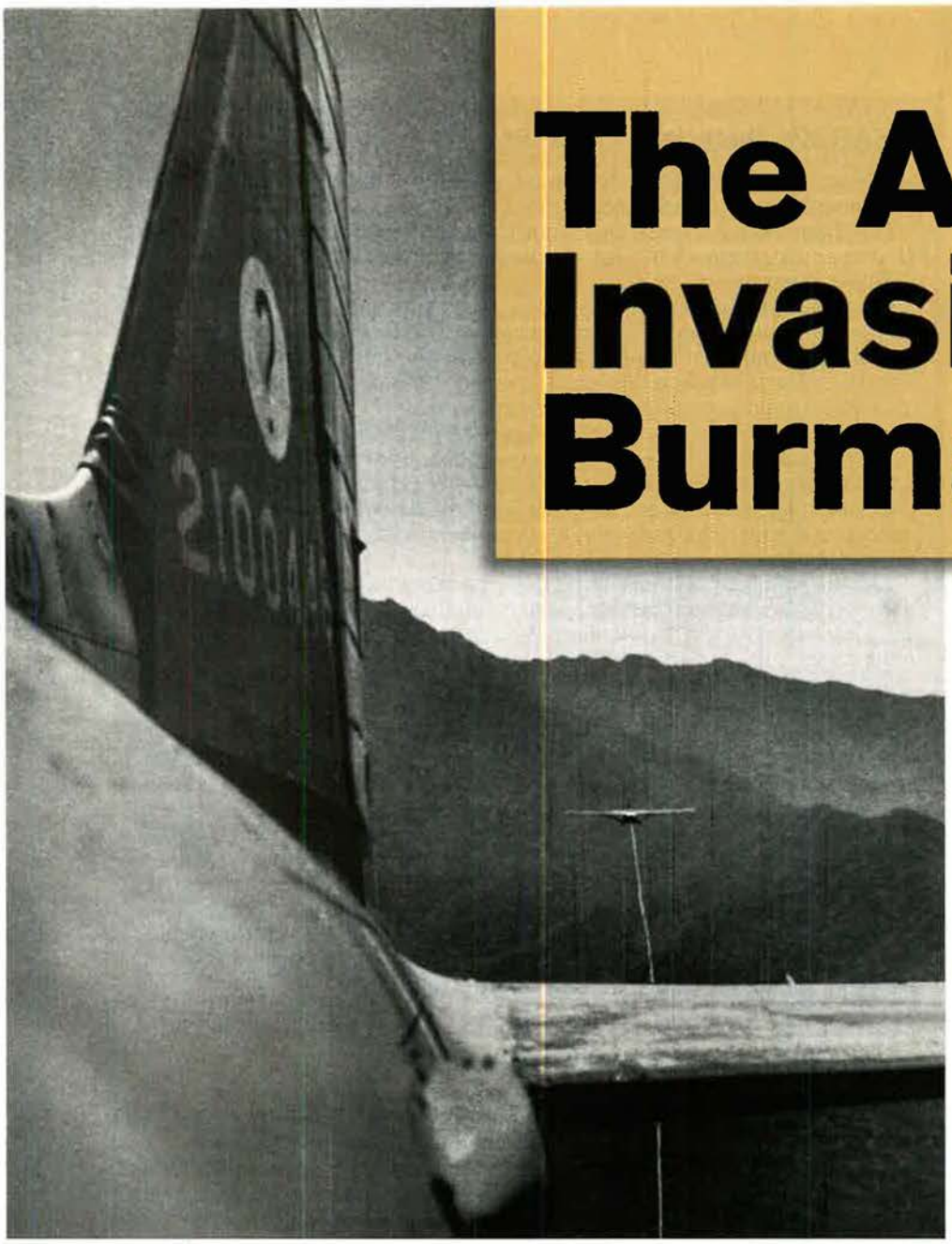
That poses an economic question of whether it would cost more to extend the life of the current fleet for some time or to buy new aircraft, he said. They also must assess the impact on availability of taking 10 percent of the fleet out of service for a life extension.

"The Air Force is in a position it didn't expect," because planners had anticipated the first CSAR-X aircraft would be on the flight line in 2009, Fiorenza said.

"CSAR-X was intended to do two things: shore up the capabilities gap and increase the number of aircraft," he said.

Now, due to OSD guidance "to focus on the 80 percent solution using current fielded assets, the Air Force will probably have to accept less," Fiorenza said. "We now expect an aircraft that will not have the range and payload of the past CSAR-X requirements."■

Otto Kreisher is a Washington, D.C.-based military affairs reporter and longtime contributer to Air Force *Magazine. His most recent article, "Gunship Worries," appeared in the July issue.*



The Air Invasion of Burma

By John T. Correll

The task for the US air commandos was to insert Orde Wingate and his Chindits far behind enemy lines and support them against Japanese forces.

The British military establishment was not fond of Orde C. Wingate. He was eccentric in personal habits and unconventional in his tactics, a practitioner of irregular warfare in the mold of T. E. Lawrence—the famed "Lawrence of Arabia"—who was in fact a distant cousin.

Wingate wore an old pith helmet that he had gotten in Africa. When on campaign, he let his beard grow to save the five minutes of shaving time in the morning. He quoted Aristotle, Plato, and the Old Testament. He ate quantities of raw onions between meals and carried a small alarm clock instead of a wristwatch. Some thought Wingate a genius; others regarded him as strange and counterproductive.

In February 1943, Wingate, then a brigadier general, introduced a "long-range penetration" strategy to break Japan's hold on Burma. He called his soldiers "Chindits," after the lion-like statues that guarded Burmese pagodas. Wingate took 3,000 men—Gurkhas and Burmese troops—and 1,000 mules deep into the jungle where they operated inside enemy territory for three months.

He faced huge logistics problems. Supplies ran short, casualties were severe because of inability to evacuate wounded, and there was difficulty extracting the force at the end of the mission. Support from the Royal Air Force was neither prompt nor sufficient.

British military leaders regarded the operation as a costly failure, but Prime Minister Winston Churchill was deeply impressed with Wingate and his determination to take the offensive. Churchill took Wingate along to the Quadrant Conference of Allied leaders in August 1943. Wingate impressed the President, Franklin D. Roosevelt; the US Army Chief of Staff, Gen. George C. Marshall; and the Commanding General of US Army Air Forces, Gen. Henry H. "Hap" Arnold. All promised to help him.

Wingate hoped to return to Burma in 1944 with a larger force and asked the AAF to resupply him by air and get his wounded out. Arnold agreed, but he had more—much more—than that in mind. "We visualized an air commando force, the first in military history," Arnold said. "Large numbers of Allied ground troops would be conveyed by aircraft deep into Burma, and once there, they would be wholly supplied by air."

To lead the effort, Arnold sent for the two most capable lieutenant colonels he could find. Philip G. Cochran was famous not only for his own achievements but also because he was the model for Flip Corkin in Milton Caniff's "Terry and the Pirates" comic strip. John R. Alison had been a fighter ace with the Fourteenth Air Force Flying Tigers in China; he was widely regarded as one of the AAF's best pilots.

Both of them balked. Cochran said he did not want to go to some "offshoot side-alley fight over in some jungle in Burma that doesn't mean a damn thing." Alison, who had been selected to command a fighter group in England, said, "I don't think you need me, and I don't want to go."

Arnold said this was not to be just a light-airplane operation. He intended to give Wingate and his troops more than

they had asked for, and to have the AAF play a larger part in the operation than the British expected. Cochran and Alison were going to Southeast Asia to develop and demonstrate a new capability for airpower, he said.

Both Alison and Cochran were promoted to the grade of colonel. They agreed that Cochran would command and Alison was to serve as deputy. The organization, dubbed the "Project 9 Task Force," operated out of a room in the Hay-Adams Hotel in downtown Washington and from an office in the Pentagon. Alison concentrated on recruiting people and obtaining equipment. Cochran went to London to confer with Wingate and Adm. Louis Mountbatten, who would shortly become Supreme Allied Commander Southeast Asia.

The project had top priority on everything, backed up as necessary by Arnold's chief of staff. Cochran and Alison were also freed from the usual burdens of administration. Arnold told them, "To hell with the paperwork. Go out and fight." They took full advantage of the dispensation.

They considered various ways to insert Wingate's force. Parachute drop would require training for the soldiers and would not work for the mules the Chindits used for transport in the jungle. Furthermore, Arnold's scheme included building airfields, and the construction equipment could not be parachuted in. Thus Cochran and Alison built their insertion force around gliders.

The key to the operation would be the Waco CG-4A Hadrian medium glider, which carried 13 passengers and their equipment or a jeep, a quarter-ton truck, or a 75 mm howitzer. The aircraft inventory that Alison pulled together included 150 of these gliders, which would be towed behind C-47 transports with a 350-foot nylon line.

Facing page: A glider trails behind a C-47 headed to a landing strip in Burma. Right: This landing site, dubbed "Piccadilly," proved unusable for landing at the last minute, forcing the entire group of gliders to land on "Broadway."

There were 348 aircraft in all, including transports, gliders, P-51A fighters, B-25H medium bombers, light "grasshopper" utility airplanes, and six experimental helicopters. The force consisted of 523 men, all of them volunteers except for Cochran and Alison.

Cochran went ahead to India, arriving Nov. 13 with a small party. He found big trouble brewing when he got to Delhi. Wingate, who did not know the extent of Arnold's intentions, told Cochran that the campaign had been canceled for lack of transport aircraft.

Seen It, Done It

Mountbatten's staff doubted Cochran could deliver all that he promised, but Mountbatten was convinced and ordered Wingate's campaign to proceed.

Alison finished up his work in the US and reached India on Christmas Eve. The task force had been renamed the 5318th Provisional Air Unit, and by Jan. 1, all of the men and equipment were in the theater. They settled in at two sod airstrips in the Imphal Valley about 100 miles west of the India-Burma border, the transports and gliders at Lalaghat, and the fighters and light aircraft at Hailakandi. Wingate's headquarters was close by at Sylhet.

The air commandos practiced glider tow with men, equipment, and mules aboard. The mules were stubborn about getting on the airplanes at first but they adjusted, and according to their handlers, they even learned to bank in the turns.

For the main insertion operation, the tow planes and the gliders would take off in tandem from the airstrip, but the air commandos were also proficient in a dramatic "snatch" variation in which low-flying aircraft could grab a glider off the ground. The glider was hooked to a towline, which was strung to a loop held 12 feet high between two poles.

A C-47 transport swept by at treetop level, trailing a catch line with a hook on the end. The hook snagged the loop, the C-47 accelerated, and the glider was yanked into the air. Inside the airplane, the line was attached to a steel cable wound around a drum, which absorbed some of the shock.

In January, the air commandos and the Chindits performed 16 practice snatches. In one instance, 300 soldiers and their mules were inserted by glider into a demonstration site and grabbed out again. Wingate, who was aboard the first glider snatched, had a message for the doubters: "Tell the RAF that I have not only seen it but I have done it."

In late February, the force practiced two covert insertions with glider extraction. In one of them, a C-47 snatched two gliders off a sandbar in the Chindwin River.

Command arrangements were loose. The task force was assigned for administration and supply to Tenth Air Force in India and was under the control of Mountbatten as Allied commander in Southeast Asia. However, Cochran reported directly to Arnold by cable and the chain of command did not strictly apply.

Cochran (l) and Alison split command duties for Project 9 Task Force. Alison concentrated on recruiting people and obtaining equipment; Cochran conferred with Wingate and Mountbatten back in London.

Cochran had two letters in his pocket. One was personal from Arnold to Mountbatten, saying the task force was exclusively for support of Wingate's force. The other was from Marshall, backing up Arnold on the task force's autonomy. Local commanders and in-theater organizations did not like this arrangement, but they bowed, some more cheerfully than others, to orders from Arnold and Marshall.

Wingate, now a major general, had three Chindit brigades. One of them would march into Burma. The other two would go in by air. Thirteen C-47s from Troop Carrier Command supplemented the 13 the air commandos had. Troop Carrier Command also provided pilots, but all of the aircraft commanders were from the 5318th PAU because of their glider towing experience.

The aerial invasion of Burma was named Operation Thursday. It was set for March 5. The gliders would go in first, land assault teams at two airfields, and suppress any enemy forces found at sites. They would also carry engineers and equipment to build airstrips for C-47s and British Dakotas to land.

Two main landing sites, essentially large clearings, in northern Burma were chosen. "Broadway" and "Piccadilly" were named for streets in New York and London. A third backup site, "Chowringhee," was named for the main street in Calcutta.

Since only 26 C-47 tow planes were available, some of the gliders would have to wait until the transports returned from the first wave of landings. Each C-47 was to pull two gliders. Forty gliders would go to Piccadilly, another 40 to Broadway. American and British air forces would provide transports to fly in troops after the initial glider landings.

On Wingate's orders, Cochran would remain at home base. Alison, however, would fly one of the gliders and command the field at Piccadilly. Lt. Col. Arvid E. Olson Jr., the executive officer, would be in command at Broadway. Alison had never flown a glider before, but he made three practice landings the day before the invasion and figured he was ready.

Piccadilly Is Out

Wingate had forbidden flights over the landing sites for fear of alerting the Japanese. On the day of the mission, the air commando photo officer, Capt. Charles L. Russhon, prevailed on Cochran to approve a photoreconnaissance mission by a B-25. Cochran did not tell Wingate. The aerial photos, rush processed, were delivered to the flight line at Lalaghat where the gliders were getting ready to go and where Cochran, Alison, and Wingate saw the pictures at about 5 p.m.

There was no problem at Broadway, but hundreds of large tree trunks littered the clearing at Piccadilly from one end to the other. The gliders could not possibly land, and Wingate almost canceled the mission out of concern that the Japanese had discovered the plan and blocked the landing site. (It turned out that the trees had been left by Burmese loggers who used the clearing to dry out their fresh-cut teak logs.)

After conferring with Cochran and Alison, Wingate decided to go ahead with the mission with all of the gliders going into Broadway.

The takeoff was delayed by less than an hour. The first C-47, towing two gliders, lifted at 6:12 p.m. The transports and gliders climbed out in wide circles to gain enough altitude to cross the mountains, taking 45 minutes to reach 8,500 feet.

Broadway was 165 miles behind Japanese lines, located in a river valley within striking distance of the rail line that ran north from Mandalay. The first few takeoffs from Lalaghat were without incident, but then problems developed. Towlines broke. Some gliders had difficulty in takeoff. Some were lost. It was later determined that the Chindits, who had been caught short of supplies in the previous year's operation, had stowed unauthorized crates of rations and ammunition aboard the gliders, which were already overloaded. Some of the gliders were carrying 2,000 pounds of extra weight. Partway through the first wave, Cochran ordered that each C-47 pull one glider instead of two.

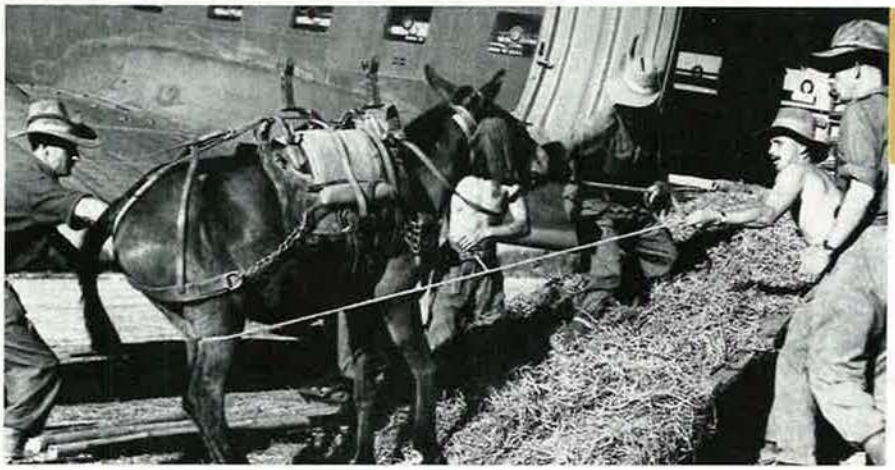
The first two gliders cut loose of the tow plane and descended to Broadway, landing safely. The assault teams bounded out on the dead run for the most logical places around the clearing for the Japanese to have placed machine guns. They soon determined that the site was unoccupied and fired a green flare to indicate that they had not been fired upon. It was about 9 p.m.

The lead glider towed by the second C-47 was flown by John Alison. His command job at Piccadilly gone, he had joined the formation as backup site commander to Olson, and it was good that he had done so. Olson's glider was among those that had gone down, and Alison would command the field at Broadway. Alison cut loose of the tow plane and his glider touched down smoothly at 70 miles an hour.

By luck, Alison had found one of the few unobstructed paths into Broadway. The gliders behind him were not so fortunate. The site was not nearly as clear as it had looked in the photos. "From the air it was impossible for us to see large trenches overgrown with grass which crossed the entire field," Alison said. "The natives logged teak in this area and in the wet season skidded the logs across the ground and down to the river. Many years of this operation had completely rutted this area and the ruts were covered with elephant grass and were not visible from the air. They formed perfect glider traps, and there was no way of avoiding them.

"The gliders began immediately to arrive overhead in large numbers, and when a glider starts down there is no way to stop it. As each glider would hit the trenches, the landing gears would come off, and down the gliders would go in a heap. We tried to arrange the lights to spread the gliders all over the field to avoid collisions, but this was impossible. The gliders were coming in

Wingate (l) was an eccentric, but British leaders were impressed with his determination to take the offensive. Here, he confers with Cochran.



During the six days of Operation Thursday, troops, supplies, and 1,283 mules were flown into Burma by the air commandos. Most deliveries were made by C-47s.

too fast to change their directions, and glider after glider piled into each other in the landing area." The only available radio set was damaged in landing, but the operator got it working long enough to dispatch a short message to Cochran to hold the rest of the gliders.

Alison took charge of the chaos and, incredibly, managed to get most of the men and equipment down with limited casualties. That night, the gliders delivered 539 men, three animals, and 65,972 pounds of stores, including bulldozers and lighting apparatus. Of the 67 gliders that departed for Broadway, 32 got there, 20 were lost en route, and 15 turned back.

Alison asked his engineer how long it would take to make an airfield. "If I have it done by this afternoon, will that be too late?" the young officer asked.

Within 24 hours, the engineers had cleared and prepared an airstrip 300 feet by 5,000, and C-47s were coming in. Wingate was aboard the first one. Alison, still acting as ringmaster, increased the rate of transports into Broadway to 16 an hour. Impressed, Air Vice Marshal John E. A. Baldwin, commander of the Third Tactical Air Force, said, "Nobody has seen a transport operation until he has stood at Broadway under the light of a Burma moon and watched Dakotas coming in and taking off in opposite directions on a single strip at the rate of one takeoff or one landing every three minutes."

The Chindits spread out, tearing up Japanese lines of communication and railroad tracks, destroying supplies, and engaging the enemy in pitched battles. On the second night, 12 gliders landed at the Chowringhee backup site, about 50 miles south of Broadway. The first glider into Chowringhee was flown by Flight Officer John L. Coogan—known to the American public as former child star Jackie Coogan and ex-husband of actress Betty Grable.

Operation Thursday ran for six days and six nights. During that time, 9,052 troops, 175 horses, 1,283 mules, and half a million pounds of supplies were flown in by Troop Carrier Command, the RAF, and the 5318th—renamed the 1st Air Commando Group by Arnold. Most of the deliveries were by the C-47s. The gliders made 74 flights in all. The AAF generally regarded the gliders as expendable, which was just as well. Their loss rate was 85 percent, mostly from the first night at Broadway. The only C-47 loss was an aircraft that pranged into a water buffalo while landing at Broadway at night.

Word From Arnold and Ike

The air commandos continued to support Wingate with fighters and bombers pounding the Japanese, light airplanes lifting Chindit casualties from openings in the jungle, and other aircraft delivering and dropping supplies and providing battlefield intelligence.

Where the Chindits went, the air commandos went. Wingate made the rounds of the battle area and jungle sites regularly, and it was nearly always Alison who flew him. However, Alison was otherwise occupied on March 24 and a different pilot was at the controls of Wingate's airplane. A B-25H left Broadway, made an intermediate stop at Imphal, and took off for Wingate's headquarters in India. It never got there. The airplane crashed into the side of a mountain and exploded, killing all aboard.

Four days later, Alison departed the theater in response to two radio messages. The first said, "Report to me without delay," and was signed Arnold; the second said the same thing and was signed by Eisenhower.

With approval from Arnold, Alison stopped briefly en route to confer with Eisenhower, who was planning to use gliders in the D-Day invasion in June and wanted to hear about the experience in Burma. Arnold assigned Alison to organize more air commando groups, which he did, deploying with one of them to the Southwest Pacific where he finished the war as operations officer for Fifth Air Force.

The Chindit brigades fought their last engagements in May 1944 and pulled out of Burma, mining the Broadway site as they left. Monsoon rains made the sod landing fields in the Imphal Valley unusable and Cochran pulled the air commando group back to Central India. Cochran himself departed on May 20, 1944. He went first to Washington, where he conferred with Arnold, and then on to Europe, where he served on Eisenhower's staff.

Without Wingate, enthusiasm for long-range penetration dwindled. US and British armies in the Burma-India Theater returned to more traditional strategies. The air commandos continued to provide support in Burma, but there were no more big missions in the style of Operation Thursday. Opinion was divided about the effectiveness of the Chindit campaign. In death as in life, Wingate inspired both admirers and detractors.

However, Operation Thursday had proved that a large force could be inserted and sustained completely by air. Cochran and Alison are recognized as founders of the air commandos, and appeared together at a program at Hurlburt Field, Fla., in 1963, where they were honored as the originators of Air Force special operations.

Cochran, in poor health, retired from the Air Force in 1945. He died in 1979. Alison had several careers: assistant secretary of commerce for aeronautics, major general in the Air Force Reserve, and industry executive as well as president, chairman of the board, and long-time national director of the Air Force Association. Alison, who will be 97 this month, is still active as a member of the AFA Senior Leader Advisory Group, and tells a spellbinding story of that moonlit night in Burma in 1944. ■

John T. Correll was editor in chief of Air Force *Magazine for 18 years and is now a contributing editor. His most recent article, "Over the Hump to China," appeared in the October issue.*

USAF photo by SSgt. Aaron Allmon

JSTARS Wars

The Air Force's E-8 Joint STARS is proving to be a powerful force in the Afghanistan war.

By Rebecca Grant

Afghanistan's remote valleys and hills can cut off communication and make it hard for forces to see Taliban and insurgents on the move. Enter the E-8C Joint STARS, the Joint Surveillance Target Attack Radar System.

Nightly Joint STARS orbits support forces in Afghanistan and Iraq with a combination of radar surveillance and communications links, including 22 radios, eight data links, and a secure telephone, putting it in the thick of irregular warfare tasks such as providing ground moving target indicator (GMTI) sensors.

"There's an insatiable demand for ground moving target indicator [data] right now," said Lt. Col. Thomas Grabowski, chief of plans and programs at the 116th Air Control Wing at Robins AFB, Ga. More than half the combat coded aircraft "are assigned to CENTCOM," he said in September.

An airborne crew of 20 or more spends their night performing tasks such as relaying communications and building "pattern analysis" of insurgent movements across hundreds of miles.

Army personnel fly onboard for direct links with ground forces. Because it performs so many tasks simultaneously, Joint STARS is at the heart of the surge in Afghanistan and ongoing operations in Iraq.

"If you talk to the Army guy, we're kind of like OnStar and 911 all rolled up in one," said Brig. Gen. Thomas Moore, commander of the 116th ACW. "If he's lost, you can tell him where he is and where he needs to go. If he's really got a problem, then you can call in help."

It's a far cry from the early vision of Joint STARS as an airplane to monitor Warsaw Pact ground forces. "JSTARS was designed for the Fulda Gap" to counter a Warsaw Pact invasion, said Col. Brian Searcy, vice commander of the 116th.

The Joint STARS fleet has been operational since December 1997, and the 17th and final aircraft was delivered just four years ago in 2005.

But the E-8 first made its name years earlier while still a prototype. Two test aircraft, rushed to the theater, flew 49 missions during Operation Desert Storm in 1991. "JSTARS (with external

sensor cuing) was able to detect, locate, and track high-value targets, such as Scud missile launchers, convoys, river crossing sites, logistics sites, assembly areas, and retreat routes," found the Pentagon's postwar report.

In that war, the new platform was credited with spotting an Iraqi attack at Khafji and verifying that Iraqi forces did not react to the great westward swing of coalition ground forces prior to the start of the ground war. When Iraq's III Corps retreated from Kuwait in late February 1991, Joint STARS saw them. The Pentagon's official report found that air strikes called in on the basis of E-8 information destroyed 58 of 61 vehicles in one convoy alone.

New Challenges

Joint STARS gained more accolades for its work over the Balkans in the 1990s and in the 78-day NATO air campaign to liberate Kosovo in 1999.

When Operation Iraqi Freedom began in 2003, seven aircraft deployed. It was first typecast as an intelligence platform for watching Iraqi heavy forces, with the same duties it had performed so well in the first Gulf War. Crews played the role to perfection.

When a sandstorm all but blinded optical sensors, Joint STARS' wide area surveillance and moving target indicator pinpointed Iraqi forces on the move.

"We were watching these guys, with the Joint STARS and the ground moving target indicator radars, coming out of Baghdad trying to reinforce the Medina Division, and the B-1s and the B-52s were up there pounding the heck out of them," recounted then-Chief of Staff Gen. John P. Jumper.

USAF photo

An E-8C Joint STARS aircraft from the 116th Air Control Wing lands at a Southwest Asia base on a mission for Operation Iraqi Freedom.

Facing page: SrA. Bounder Bruener, left, and SrA. Trenton Franklin, both of the 7th Expeditionary Air Combat and Control Squadron, coordinate requests from ground units during an E-8 Joint STARS mission over Iraq. Above, an E-8 test aircraft at a contractor facility in Melbourne, Fla., sports a newly installed propulsion pod system, part of a major engine upgrade.

For Joint STARS, the new challenges in Iraq and Afghanistan were just beginning.

Convoy overwatch was the first new duty. As the situation in Iraq darkened in 2004 and 2005, land forces tasked Joint STARS to sweep ahead of road convoys to watch for suspicious activity and provide communications links.

"For a couple of years after OIF, the responsibility of JSTARS was basically convoy duty," said Searcy. "That was out of necessity." E-8s filled the gap until the coalition established a mature communications and route structure.

"Over time, folks started realizing we were able to do much more than strictly being airborne radio overhead," said Lt. Col. Bill Gould, commander of the 12th Airborne Command and Control Squadron at Robins. Gradually, the fact that Joint STARS was airborne and covering a large swath of Iraq led to a patchwork of emergency taskings far beyond the original missions.

Combat search and rescue participation was one. Capt. James Lopez recalled flying a routine mission over Iraq when suddenly a call went out from an aircraft in mechanical trouble. "They had to eject, and their aircraft went down, and we were able to provide support for them, point out any

Northrop Grumman photo

An E-8 Joint STARS maneuvers into position beneath an aerial refueling tanker during a recent training mission.

[enemies], ... and call it out to other fighters and actually steer them that way," Lopez said.

Quick work on radios and in chat rooms pointed out the value of Joint STARS in managing communications between forces. Soon the platform was carrying out heavy taskings from both intelligence and operations commanders.

Crews referred to the multiple roles as something of an identity crisis—in a good way. "JSTARS for quite some time has had an identity crisis," said Grabowski. "We're an ISR [intelligence-surveillance-reconnaissance] platform and a command and control platform. That brings a lot of synergistic capability to the warfighter, but it also confuses folks as to who owns the aircraft and how the aircraft should be employed."

The wide area coverage spanning 19,000 square miles and onboard crew turned Joint STARS into a weapon that does both intelligence and operations all on the same mission.

"We have continually been educating CENTCOM as to the fact that you give us a collection deck, we can do dual-sided ops now, we can give you the GMTI you want, but while we're doing that, we can still do support to named operations, we can provide [intelligence preparation of the battlespace] to forces that are on the ground, we can provide screening—there's a lot of things that our operators onboard the airplane can do," said Searcy.

As a result, Joint STARS data permeates today's fight in Afghanistan and Iraq. Missions generally begin with a tasking for a collection deck to survey specific areas and targets. Crews routinely check in with joint terminal attack controllers (JTACs) in the area and link to other strike and ISR aircraft, including other command and control aircraft such as AWACS and Navy P-3s.

Movements in the Battlespace

A typical mission will fill databases with moving target information, while assisting ground forces with real-time communications needs.

Information flows to air and ground command centers. The combined air operations center plans and tasks E-8 sorties and receives direct data in real time. Operators call it "JSTARS in a box." Army intelligence analysts receive similar information real-time at a brigade tactical operations center. Brigade intelligence staff incorporate the picture into planning.

The Joint STARS wide area view is a highly desirable commodity for ground forces. "In most cases, we preplan to be in the area and provide them with updates to enhance the situation awareness of the commander," said Army Lt. Col. Darryl Verrett, a military intelligence officer in command of the Army Joint STARS detachment at Robins. "We can't tell him exactly what he may have to deal with, but we can tell him we've got some suspicious activity and let him deal with it on his level," he said of the Army commanders receiving Joint STARS data.

Typical data includes distance and heading, plus a depiction of the size of a column. Analysts on the aircraft can also give a strong characterization of what they believe the vehicles may be. It's not positive identification, but over time, analysts grow skilled in judging whether a trail of dots are people or different types of vehicles.

"On that screen capture, we will interpret what we see because we're trained as to what the dots potentially mean," said Verrett.

As good as Joint STARS is at immediate support, it also is developing a way to turn back the clock and glean more intelligence on insurgent operations.

Buried in the billions of pixels of data are complete information sets on movement in the battlespace. With its unique wide area coverage, the Joint STARS radar archives weeks of enemy activity.

Jewels of data jump out from the wide area scans. Properly refined, the data creates a revealing picture of enemy movement around known locations and uncovers new sites through monitoring unexpected volume of traffic. Dots that pop up out of nowhere can tip off analysts to new insurgent routes, tactics, and hideouts. It is battlespace preparation—in reverse.

Pattern analysis was first used like crime-scene forensics. Analysts can call up old moving target indicator data and focus on the site of an improvised explosive device attack or the compound of a suspected terrorist. If analysts know where to look, Joint STARS can fill them in on the patterns of movement over the time preceding an attack. By comparing tracks day after day, enemy routines come into focus.

Joint STARS coverage is so wide that as long as the aircraft's orbit was in the right country, the old logs would reveal practically all the movement to and from a site.

In early 2007, analysts started experimenting with pulling data from a night's mission and analyzing it in time to assist ground forces planning the next day's operations.

Inherent in the radar scans was information that provided raw material for learning more about types and patterns of moving forces. "You get information out of dots that's normally thrown away," said Maj. Toby Edison with the Joint STARS program office at Hanscom AFB, Mass.

The forensics process grew from investigation after the fact to a new way to watch and control the battlespace. Instead of after-action analysis spanning days or weeks, analysts began to use the Joint STARS nightly mission tapes for both ongoing intelligence and for immediate operational planning. Analysts soon found that the trail of dots formed by the moving target indicator might

provide intelligence and warnings on new areas where ground forces had not patrolled before. Rapid, advanced exploitation of the Joint STARS tapes was key.

Recent tests conducted on dismounted targets—people—suggest that Joint STARS moving target indicator may be reaching a new level of refinement. It may be possible in the future to characterize the moving target indicator "dots" as sheep, people, cars, trucks, or other types of targets. With upgrades, "I think they can get it down to actually being able to track a relatively heavily laden human," said Grabowski.

For the time being, the E-8 "won't tell you what model of Toyota 4Runner the insurgents are driving, but it will tell you that there's unusual movement in specific places," said Loren B. Thompson of the Lexington Institute. Joint STARS can then "hand off that information for closer inspection by Predator surveillance drones or manned aircraft."

Other customers include smaller units on the ground directly at the battle's edge. They may be JTACs, special operations forces, or teams at firebases. Other aircraft can also receive Joint STARS data via chat or secure data links such as Link 16. Cross-cuing with Predator is common.

During a mission, the scan area and crew size enable Joint STARS to help out several of these units at once while still piping data to higher command centers. "If I'm working with a task force in one area of the country and a [brigade combat team] somewhere else, I've got 18 folks and all those radios and chat rooms, so I can do multiple things at once," said Grabowski.

"That's the beauty of wide area surveillance in a radar—the ability to cover a lot of real estate," he added.

"The difference with us is the fact we have all those radios, we can reposition the airplane at very short notice," said Gould. Joint STARS is also talking to far more players than originally envisioned and a lot of it is through chat, not voice.

"Right now, on any given sortie over Afghanistan and Iraq, we're in 20 to 30 separate chat rooms," said Grabowski. Gone are the days of depending solely on "crackly SATCOM radio or an intermittent UHF radio."

While voice and secure radio are still important, crews praise the ability of chat to let them work with players from Predators to ground task forces to command centers and other aircraft all at once.

The Engine Dilemma

Over the years, Joint STARS upgrade prospects have waxed and waned. E-8 aircraft are actually secondhand 707s, bought at a time when the Army funded most of the program and didn't want to pay for new aircraft. One typical E-8 at Robins AFB, Ga., has more than 71,000 hours of flying time.

Recent studies concluded that the airframe itself is not the problem. A fleet viability board has certified Joint STARS for another 25 years of operations.

The problem is old engines. The Pratt & Whitney JT3D-3B engines produce 18,000 pounds of thrust apiece, but have been outclassed by newer engine types.

This is an issue for aircraft deployed overseas. "We pull an engine off that airplane every 3,000 to 4,000 hours, with the JT3D," said Brig. Gen. Thomas Moore, the commander of the 116th Air Control Wing. With newer JT8D engines, that goes to 30,000 to 40,000 hours. "You think about the workload changing for the maintenance guys swapping motors out, especially over there in the desert, with the sand, the grit, the heat," said Moore. "It's a big deal."

The operational payoff of new engines for Joint STARS includes faster climb rates, longer loiter time in the target area, orbit at higher altitudes, and greater fuel efficiency.

"Extra altitude gives me extra height, so I can look over valleys, ridge lines, mountain areas," said Lt. Col. Thomas Grabowski, chief of plans and programs at the 116th. "Iraq's a relatively flat country, Afghanistan not so much. ... I've got to be high enough to look down into some of those areas where we know the bad guys are, and that's what those engines are going to do for me."

Chat has actually become the first-choice method for communication. "When we first get on station, we check in via mIRC [internet relay chat]," said SrA. Sara Ryan of the procedures for linking with JTACs.

"It's so quick and easy," said Lopez of the chat relay. "I can talk to all three jets within a matter of seconds."

New Missions

The near future will add new capabilities. One test aircraft will have a new pod to act as a second sensor. The electro-optical picture will permit the crew to confirm target identification. Right now, Joint STARS has to pass symbology to a fighter or unmanned aircraft to get crisp visual identification.

Also in the works are radar enhancements for overwater and littoral missions. Imagine Joint STARS positioned to track dots over water—be they pirates or small boats. Brushing up the moving target indicator exploitation could also position the E-8 for theaterwide combat identification tasks.

Grabowski told of one vivid night in late 2008 when the airborne crew picked up a "danger close" call from a JTAC in southern Afghanistan. He knew, from his experience, that "Taliban fighters are a militarily proficient force. They're going to do a movement to contact."

On this night, Joint STARS was in its refueling track when the call came. "The one thing you never want to hear from the JTAC is, 'Danger close.' We knew there was a problem," said Grabowski.

Friendly troops were battling roughly 70 Taliban in a tree line—a date palm grove about 219 yards from their firebase. A British JTAC had sent out the alarm picked up by Joint STARS over the radio. Communications were so limited that the JTAC was having trouble contacting the CAOC to call in strike aircraft.

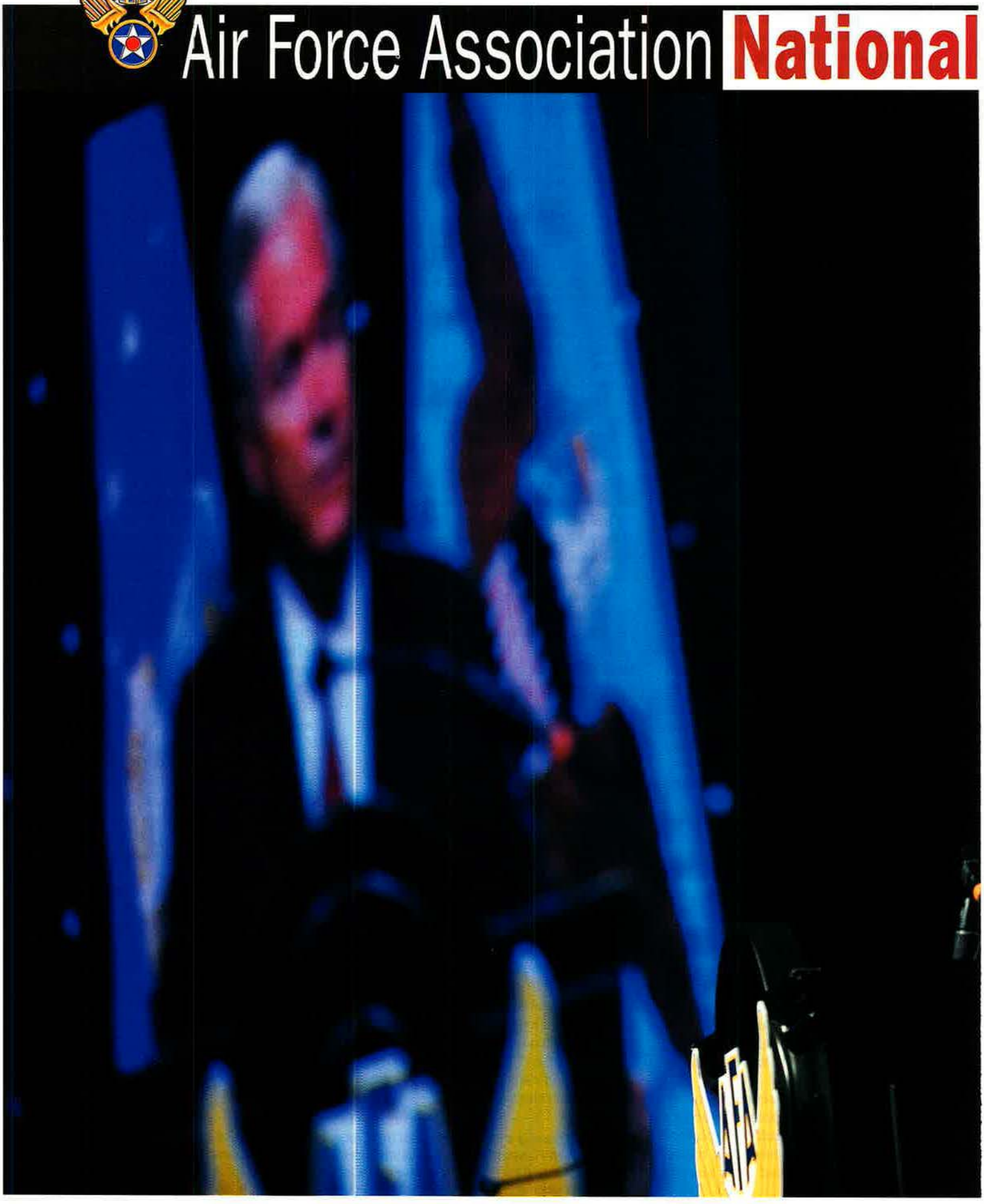
Onboard the aircraft, "we used our mIRC to alert the CAOC, launch alert aircraft, and get folks to [Regional Command] South where this firefight was happening," recalled Grabowski. The aircraft gave up the gas for its next refueling to thirsty fighters in the area, and throttled back engines to stay on scene as long as possible.

"We had two A-10s come in first and Winchester out," Grabowski said. "They basically mowed down the date palm grove."

Other platforms, from EP-3s to the Block 40 Global Hawk, will join in the moving target indicator mission. But no current or future platform will come close to the wide area surveillance of Joint STARS—or carry the airmen and soldiers to talk the last tactical mile to troops in contact. ■

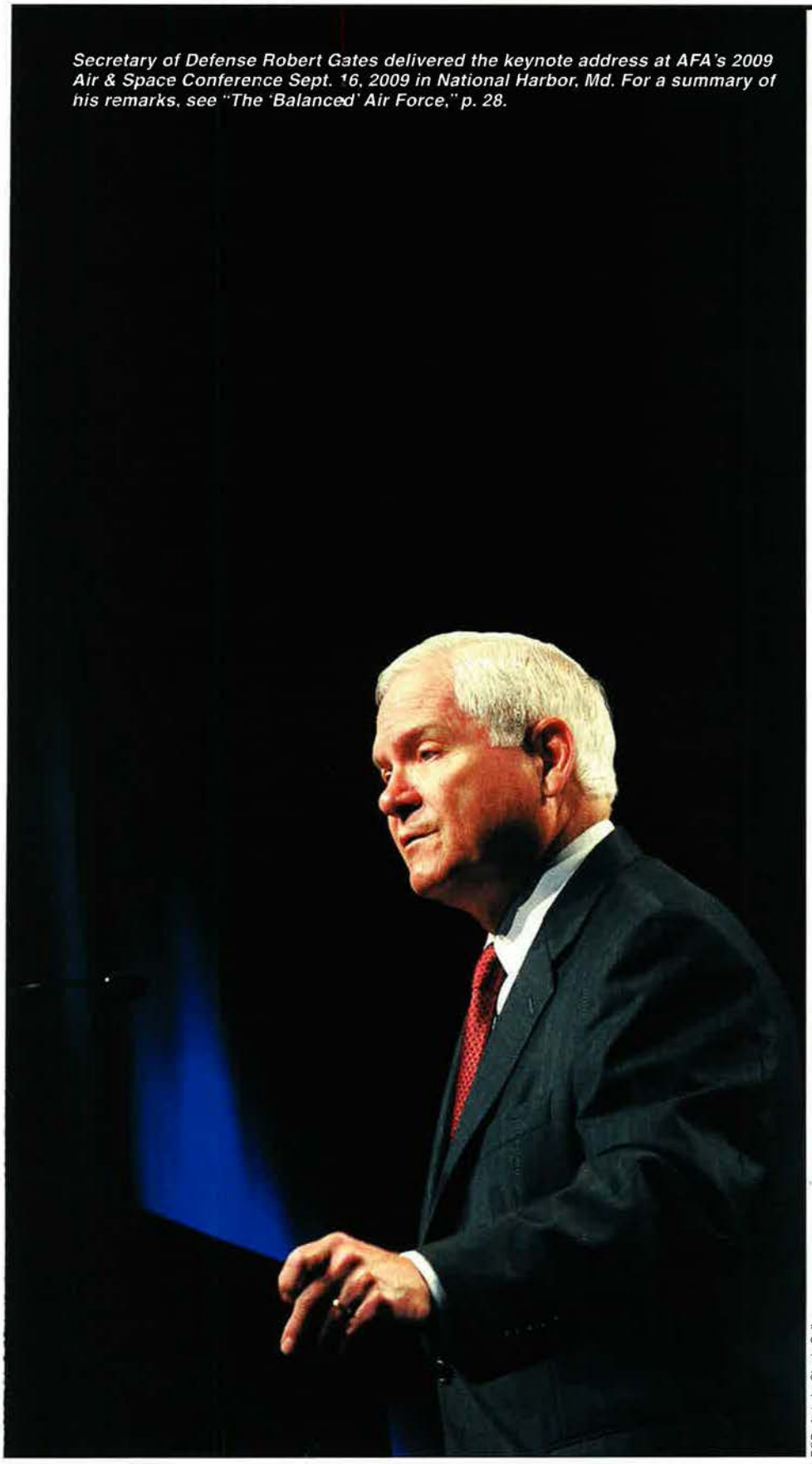
Rebecca Grant is a senior fellow of the Lexington Institute and president of IRIS Independent Research. She has written extensively on airpower and serves as director, Mitchell Institute, for AFA. Her most recent article for Air Force *Magazine was "Insecurity in Space," which appeared in the October issue.*

Air Force Association National



Convention 2009

By Tamar A. Mehuron, Associate Editor



Secretary of Defense Robert Gates delivered the keynote address at AFA's 2009 Air & Space Conference Sept. 16, 2009 in National Harbor, Md. For a summary of his remarks, see "The 'Balanced' Air Force," p. 28.

DOD photo by Cherie Cullen

Some 6,000 attendees listened to Pentagon chief Robert M. Gates and USAF leaders, viewed scores of exhibits, and honored heroic World War II Doolittle Raiders and Tuskegee Airmen at the Air Force Association's Sept. 14-16 Air & Space Conference and Technology Exposition just outside Washington, D.C.

AFA's premier national event was held, for the first time, in the spacious setting of the Gaylord National Hotel and Convention Center, located on the banks of the Potomac River in National Harbor, Md.

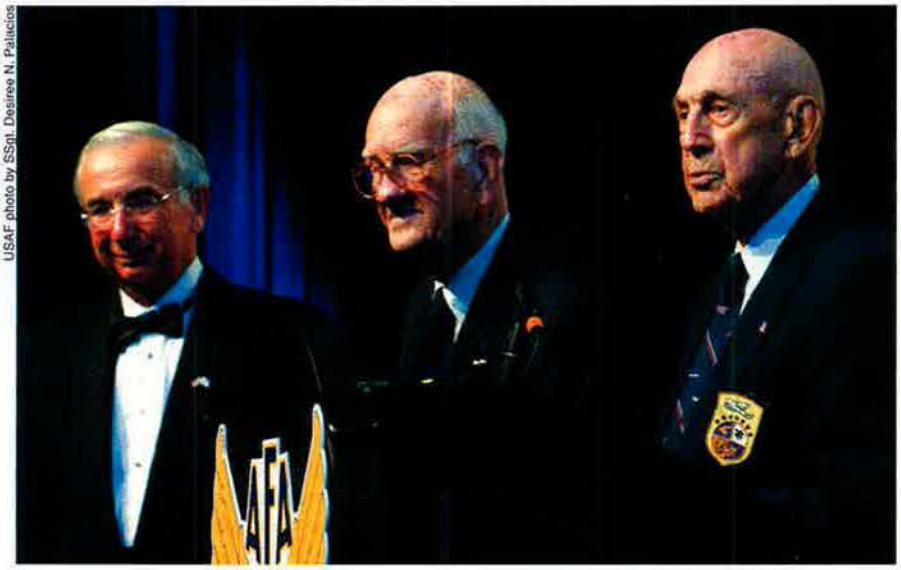
The conference was preceded by AFA's National Convention, which spanned Sept. 11-13. AFA delegates throughout the next week mingled with conference attendees.

Joining the crowd, for the fifth consecutive year, were students from USAF's Air Command and Staff College, Maxwell AFB, Ala. AFA hosted the nearly 350 students from the Class of 2010 who attended the conference's presentations, speeches, and briefings and viewed 137 exhibits at the exposition. Their participation was made possible in part by a grant from Boeing.

The event drew 105 news media representatives.

On Sunday morning, Sept. 13, AFA delegates and members and airmen gathered at the Air Force Memorial to honor the memory of fallen compatriots. Donald J. Harlin, AFA National Chaplain, officiated. Brig. Gen. David H. Cyr, USAF deputy chief of chaplains, delivered the benediction. The official party—Michael B. Donley, Secretary of the Air Force, Gen. Norton A. Schwartz, Chief of Staff of the Air Force, CMSAF James A. Roy, and Joseph E. Sutter, AFA Chairman of the Board, laid a memorial wreath. The 2009 Memorial Tribute List was read by Sutter, James R. Lauducci, Vice Chairman of the Board for Field Operations, and S. Sanford Schlitt, Vice Chairman of the Board for Aerospace Education.

Schwartz delivered the conference welcome on Monday, Sept. 14. In the evening, AFA feted the 12 Outstanding Airmen of the Year at a reception underwritten by Northrop Grumman.



USAF photo by SSgt. Desiree N. Palacios

Gen. Carrol H. Chandler, Vice Chief of Staff, delivered the address, and Roy served as master of ceremonies.

On Tuesday, Sept. 15, the Outstanding Airmen, along with AFA and USAF leaders, met with their Congressional representatives on Capitol Hill. The weeklong activities of the Outstanding Airmen were underwritten by ATK.

On Sept. 16, a reception sponsored by Lockheed Martin led off an evening capped by AFA's Air Force Anniversary Dinner. Pat Coulter served as master of ceremonies. Singer Juanita Williams provided musical entertainment. At this dinner, AFA honored:

- Gen. John D. W. Corley, former commander of Air Combat Command, with the H. H. Arnold Award, recognizing the year's most significant contribution by a military member to national security.
- Sen. Orrin G. Hatch (R-Utah), with the W. Stuart Symington Award, recognizing the year's top contribution by a civilian in the field of national security.
- General Atomics Aeronautical Systems Inc., provider of the MQ-9 Reaper remotely piloted aircraft, with the John R. Alison Award for top industrial leadership in national security.
- ExxonMobil Foundation, with the AFA Chairman's Aerospace Education Award, for its long-term commitment to aerospace education.
- The Doolittle Tokyo Raiders, the Tuskegee Airmen, and James R. Schlesinger, former Secretary of Defense and former Secretary of Energy, with AFA Lifetime Achievement Awards.

USAF photo by Scott M. Ash

USAF photo by Scott M. Ash

AFA Education Award

William L. Austin, a teacher at Pocalla Springs Elementary School, Sumter, S.C., won the AFA National Aerospace Teacher of the Year Award, as the year's outstanding science, technology, engineering, or mathematics teacher.

Top: Joseph Sutter (l), AFA Chairman of the Board, presents a Lifetime Achievement Award to Doolittle Raiders retired Maj. Thomas Griffin (center) and retired Lt. Col. Richard Cole. Above: SrA. Danny Williams receives a standing ovation from conference attendees as Chief of Staff Gen. Norton Schwartz praises him for heroism in Afghanistan. Left: Schwartz congratulates former 1st Lt. Dolphin Overton III after presenting him with a long-delayed Distinguished Service Cross received for his actions while serving in Korea in 1952.

Photos by Guy Aceto

Left: The USAF Honor Guard renders honors during AFA's wreath laying ceremony at the Air Force Memorial. Below: Three Tuskegee Airmen, representing the group that received a Lifetime Achievement Award, share a laugh with Sen. Orrin Hatch (second from left). They are, l-r, retired Lt. Col. Walter McCreary, retired Col. Charles McGee, and retired Col. Elmer Jones. Bottom: John Alison (l), World War II ace, huddles with Robert Largent, former Air Force Association Chairman of the Board.

Congressional Activity

AFA delegates from 22 states gathered at the Capitol Visitors Center for a reception Tuesday morning with members of Congress, senior professional staff members, and USAF leadership. Attendees included Sen. James Inhofe (R-Okla.) and Sen. James Webb (D-Va.), members of the Armed Services Committee; and Sen. Robert F. Bennett (R-Utah) and Sen. Patty Murray (D-Wash.), members of the Senate Appropriations Committee.

Also present at the AFA reception were Reps. Rob Bishop (R-Utah), Doug Lamborn (R-Colo.), Jim Marshall (D-Ga.), and Robert J. Wittman (R-Va.), members of the House Armed Services Committee; and Rep. John R. Carter (R-Tex.), member of the House Appropriations Committee.

USAF photo by SSgt. Desiree N. Palacios

Other Senators attending the reception included: Hatch, Sen. Michael B. Enzi (R-Wyo.), and Sen. John Barrasso (R-Wyo.).

Air Force leaders at the event were: Donley, Schwartz, Gen. Roger A. Brady, commander, US Air Forces in Europe, Gen. C. Robert Kehler, commander, Air Force Space Command, Gen. Arthur J. Lichte, commander, Air Mobility Command, Gen. Stephen R. Lorenz, commander, Air Education and Training Command, Gen. Gary L. North, commander, Pacific Air Forces, Lt. Gen. David A. Deptula, deputy chief of staff for intelligence, surveillance, and reconnaissance, Lt. Gen. Raymond E. Johns Jr., deputy chief of staff for strategic plans and programs, Lt. Gen. Jack L. Rives, judge advocate general, Lt. Gen. Marc E. Rogers, inspector general, Lt. Gen. Charles E. Stenner Jr., chief of Air Force Reserve, Lt. Gen. Harry M. Wyatt III, director, Air National Guard, Maj. Gen. C. Donald Alston, assistant chief of staff for strategic deterrence and nuclear integration, Maj. Gen. Roger W. Burg, commander,

Photos by Guy Acelo

Left: A glass-walled atrium at the Gaylord National Hotel and Convention Center offered dramatic views of the Potomac River. Bottom: A sea of airmen, members of the press, and conference attendees flood into the Air & Space Technology Exposition.

20th Air Force, Maj. Gen. Garry C. Dean, deputy inspector general, and Maj. Gen. Larry O. Spencer, deputy assistant secretary for budget.

Election of Officers

Joseph E. Sutter, of Knoxville, Tenn., was re-elected Chairman of the Board for a second term. James R. Lauducci, of Alexandria, Va., was re-elected Vice Chairman of the Board, Field Operations, for a second term. S. Sanford Schlitt, Sarasota, Fla., was re-elected Vice Chairman of the Board, Aerospace Education, for a third term. Joan Sell, Colorado Springs, Colo., was elected AFA National Secretary for a first term, and Steven R. Lundgren, Fairbanks, Alaska, was re-elected AFA National Treasurer for a fifth term.

Other Elections

Elected to the Board of Directors for three-year terms were Larry Lawson, Atlanta, Ga.; William R. Looney III, Garden Ridge, Tex.; and Wayne R. Kauffmann, Agoura, Calif.

Nine new Region Presidents were elected. Newly elected are Jeffrey Platte (Central East Region), Richard Taubinger (Far West Region), James Connors (Florida Region), John McCance (Great Lakes Region), John Hasson (New England Region), James Simons (North Central Region), Grant Hicinbothem (Rocky Mountain Region), John Toohey (Southwest Region), and David Dietsch (Texoma Region).

Other AFA Business

Holding meetings were the Air Force's Air National Guard Council, Company Grade Officers Council, Enlisted Council, and Reserve Advisory Council. The Civilian Advisory Council was also represented. At the National Convention, there were 207 registered delegates, representing 39 states and the District of Columbia.

The convention delegates reviewed the 2010 Statement of Policy and Top Issues and were also briefed on the AFA Strategic Plan for 2010-11, all of which were approved by the Board of Directors on Sept. 12.

The delegates also considered and acted on one Field Resolution. They supported the recommendation to nonconcur by both the Executive Committee and the Board of Directors. They also approved a number of changes to the AFA Constitution that enhanced governance and removed provisions included to govern the afa21 transition process that are no longer necessary.

Finally, the delegates ratified an action by the Board of Directors to raise the association's dues, not to exceed 25 percent (specifically, one year, $36 to $45; three years, $90 to $110; life, $500 to $600). Exact implementation dates and phasing of categories are to be determined by the staff, but in no case earlier than June 2010. Additionally, the Field Council was directed to study appropriate adjustment in rates of payments to field organizations, and the association was further directed to form a Dues Committee every three years, beginning in 2012, to review the dues structure and report their findings and recommendations to the Board of Directors.

Acknowledgments

Parliamentarian for the AFA National Convention was Joan Blankenship. Inspectors of Elections were Ron Mielke (Chairman), John McCance, and Ron Adams. Bonnie Callahan chaired the Credentials Committee, serving with Mary Mayer and Fran Shaw.

The association is particularly grateful to a corps of volunteers who assisted the staff in convention support: Michael Arth, Dan Hixon, Justin Mastrangelo, Debbie Snyder, and Leola Wall. ■

Air Force Association Top Issues for 2010

The following recommendations for the federal government are drawn from the Air Force Association's 2010 Statement of Policy, "A Balanced Air Force," adopted by the delegates to the AFA National Convention on Sept. 12, 2009, in National Harbor, Md. The full text is available at www.afa.org/AboutUs/PolicyIssues.asp.

1 SUPPORTING OUR AIRMEN

- The Air Force Association salutes all of our troops for their service.
- The Air Force Association will strongly oppose any effort to change Tricare.

2 RECAPITALIZING THE AGING FLEET

- Begin the production of new tankers.
- Continue acquisition of the C-17, modification of the C-5B/Cs, and gain the flexibility to retire the older C-5As.
- Increase the production rate of the F-35.
- Retain CSAR as a core Air Force mission and replace the CSAR helicopter.
- Take the necessary steps to ensure long-range strike capability is sustainable.

3 STRENGTHENING THE NUCLEAR ENTERPRISE

- Provide a life extension program that ensures safe, reliable, and secure nuclear weapons to deter, assure, and provide stability.
- Caution the Administration and Congress against large nuclear weapon reductions that will undermine our security.

4 SECURING SPACE AND CYBERSPACE

- Place an increased emphasis on space capabilities and robustly fund this critical mission area.
- Focus on developing the next generation of cyber security experts and capabilities now.

5 DEVELOPING AIR FORCE PEOPLE; EDUCATING AIRPOWER PROFESSIONALS

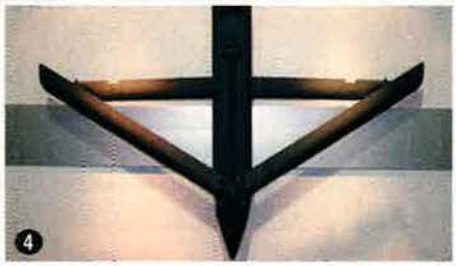
- Invest in technical education to build the support foundation the nation needs.
- Continue and expand national programs encouraging the study of science, technology, engineering, and mathematics.

6 INVESTING IN AIRPOWER

- Support a minimum defense spending base of four percent of the national gross domestic product.
- Urge DOD to establish a strategic plan to define the elements of a robust defense industrial base and the steps needed to maintain that robustness.

Air Force Association Technology

Aerospace technology of a high order went on display at AFA's annual showcase.



AFA's annual Technology Exposition, held this year in a new venue, was bigger and better than ever. More space allowed many exhibitors to bring full-size equipment for display. ***I1I*** *Italian Air Attaché Col. Giorgio Russo (r) talks with an Alenia representative displaying a model of a potential T-38 trainer replacement, the M-346.* ***I2I*** *A cutaway of Northrop Grumman's E-8 Joint STARS highlighted the company's intelligence-surveillance-reconnaissance theme.* ***I3I*** *Air Force Research Laboratory displayed a cutaway version of the Small Diameter Bomb with a range-extension kit attached.* ***I4I*** *MBDA's Diamond Back is a strap-on wingset to extend the range of the SDB.* ***I5I*** *Retired Joint Chiefs of Staff Chairman Gen. Richard Myers (l) signed copies of his new book. Here, he greets Vinton Cerf, vice president of Google, another speaker at the conference.* ***I6I*** *Maj. Rob Butkovich and Maj. Andy Riggs, students at Air Command and Staff College, Maxwell AFB, Ala., talk with a Lockheed Martin rep about the AT-6, a counterinsurgency version of the Hawker Beechcraft T-6 Texan II trainer.*

Exposition 2009

Photos by Guy Aceto

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I1I Boeing offered models of the CV-22 (foreground) and a notional high-altitude reconnaissance UAV. I2I SSgt. Josefina Sullivan studies the F135 engine on a touchscreen at the Pratt & Whitney booth. Looking on are SMSgt. James Irwin (l) and TSgt. Thomas Speranzi, from Scott AFB, Ill. I3I Northrop Grumman models chronicle the company's work on the B-2, F-22, F-35, and F/A-18, as well as a notional next generation bomber. I4I The EADS booth showed off models of proposed aircraft, including an airframe, already in use by the Army. I5I General Electric featured its F136 engine, a potential alternative power plant for the F-35 fighter. I6I An F-35 model equipped with all-European munitions: MBDA Storm Shadow, Meteor, and ASRAAM.

|1| A full-size Mobius unmanned combat aircraft dominated L-3's booth. |2| This large cutaway model showed the new capability of Hawker Beechcraft's MC-12 Liberty Project Aircraft, rushed to combat in Afghanistan. |3| The "chin" of the F-35 will house its electro-optical targeting system, shown by Lockheed Martin in full scale. The stealthy system replicates the capabilities of today's strap-on Sniper targeting pod.

|4| Lockheed Martin F-35 test pilot Jon Beesley, in one of many video presentations at the company's display. |5| Northrop Grumman's booth featured its B-2 "stealth bike," a fully functional motorcycle seen on The Learning Channel's "American Chopper" TV series. The larger venue allowed Northrop Grumman to add a "second story" level to its booth. |6| A futuristic fast attack counterinsurgency helicopter model, courtesy of Sikorsky. |7| Those blades are really moving: A Pratt & Whitney engine mock-up, in cutaway.

I1I Maj. Isaac Moreetsi from South Africa (center) and Maj. Hayk Karapetyan of Albania—students at the Air Command and Staff College—visit with Air National Guard representative MSgt. Annette Brown. The students were able to take advantage of programs on a wide variety of Air Force-related topics. I2I Boeing's expansive booth featured an information system activated by an electronic wristband. Push a button, and more info would be sent directly to your e-mail address. I3I Air Force ROTC students from Georgetown and Howard Universities in Washington, D.C., took part in a CyberPatriot *exercise, sponsored by Science Applications International Corp., which supplied the cyber "enemy" at right. I4I Lockheed Martin's booth featured prominently its status as USAF's primary fighter-maker, with large-scale models of the F-22 and F-35. I5I Deputy Defense Secretary William Lynn speaks at the exposition ribbon-cutting ceremony. I6I AFRL's booth was, as usual, a cornucopia of interesting projects and budding technologies likely to make their way into future USAF systems. I7I Full-size unmanned aircraft "flew" over much of the exhibit hall. This reconnaissance drone is made by BAE Systems.* ■

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Air Force Association National Awards 2009

National Aerospace Awards

Award	Recipients
H. H. Arnold Award *AFA's highest honor in national security to a member of the armed forces*	**Gen. John D. W. Corley,** Commander, Air Combat Command, Langley AFB, Va.
W. Stuart Symington Award *AFA's highest honor in national security to a civilian*	**Sen. Orrin G. Hatch,** Utah
John R. Alison Award *AFA's highest honor for industrial leadership*	**General Atomics Aeronautical Systems Inc.,** MQ-9 Reaper
AFA Chairman's Aerospace Education Award *For long-term commitment to aerospace education*	**ExxonMobil Foundation**
Lt. Gen. Claire L. Chennault Award *Outstanding performance in aerial warfare tactics*	**Maj. David C. Lyons,** 57th Wing, Nellis AFB, Nev.
David C. Schilling Award *Outstanding contribution in flight*	**US Air Forces Central,** headquartered in Southwest Asia, Lt. Gen. Gilmary M. Hostage III, commander
Theodore von Karman Award *Outstanding contribution in science and engineering*	**Laser Joint Direct Attack Munition Team,** Eglin AFB, Fla.
Gill Robb Wilson Award *Outstanding contribution in arts and letters*	**The United States Air Force Band,** Bolling AFB, D.C.
Hoyt S. Vandenberg Award *Outstanding contribution in aerospace education*	**Robert F. Collings,** founder of The Collings Foundation, Stow, Mass.
Thomas P. Gerrity Award *Outstanding contribution in systems and logistics*	**Maj. Chad A. Holt,** commander, 355th Aircraft Maintenance Squadron, Davis-Monthan AFB, Ariz.
Department of Veterans Affairs Employee of the Year *Outstanding performance by VA employee*	**Kendra Betz,** physical therapist, VA Rocky Mountain Network, Glendale, Colo.

Gen. John Corley (third from left), H. H. Arnold Award recipient and former commander, Air Combat Command, is joined by (l-r) AFA Board Chairman Joseph Sutter, USAF Chief of Staff Gen. Norton Schwartz, and Secretary of the Air Force Michael Donley.

Professional, Management, Civilian, Environmental, and Safety Awards

Gen. Billy Mitchell Award for C4 Excellence; Capt. Scott A. Weed, 3rd Combat Communications Gp., Tinker AFB, Okla.

Gen. George C. Kenney Award; Hq., Air Force Special Operations Command, Lessons Learned Team, Hurlburt Field, Fla.

CMSAF Thomas N. Barnes Award; SSgt. Jonathan W. Scheets, 4th Aircraft Maintenance Sq., Seymour Johnson AFB, N.C.

Paul W. Myers Award for Physicians; Maj. William Hannah, Keesler Medical Center, Keesler AFB, Miss.

Verne Orr Award for Human Resources; 33rd Rescue Sq., Kadena AB, Japan

Juanita Redmond Award for Nursing; Capt. April J. Dunlevy, Elmendorf AFB, Alaska

Stuart R. Reichart Award for Lawyers; David W. Chappell, Air Force Legal Operations Agency, Arlington, Va.

Civilian Wage Employee of the Year; Brigido G. Serrano, 355th Logistics Readiness Sq., Davis-Monthan AFB, Ariz.

Civilian Program Specialist of the Year; Gary J. Parker, 45th Space Wing, Patrick AFB, Fla.

Civilian Program Manager of the Year; Kenneth E. Bandy, 308th Armament Systems Wing, Eglin AFB, Fla.

Civilian Senior Manager of the Year; Jeffrey J. Braun, 77th Aeronautical Systems Wing, Wright-Patterson AFB, Ohio

AFROTC Cadet of the Year; Wesley W. Carr, University of Arkansas

CAP Aerospace Education Cadet of the Year; Victor R. Traven, Maryland Wing, Civil Air Patrol

Joan Orr Award for Air Force Spouse of the Year; Michelle L. Storch, Hill AFB, Utah

Air Force Chaplain Service Award; Capt. Andrew L. Thornley, Andrews AFB, Md.

Management Award—Executive Division; Gary Williams, 308th Armament Systems Wing, Eglin AFB, Fla.

Management Award—Middle Division; Michael W. Campbell, 308th ASW, Eglin AFB, Fla.

Management Award—Junior Division; Capt. Waldine W. Messmore, 308th ASW, Eglin AFB, Fla.

Gen. E. W. Rawlings Environmental Award—Mgmt.; Douglas Owen, 4th Civil Engineer Sq., Seymour Johnson AFB, N.C.

Gen. E. W. Rawlings Environmental Award—Tech.; TSgt. Mark T. Burns, 99th LRS, Nellis AFB, Nev.

SECAF Safety Award—Category I; US Air Forces in Europe, headquartered at Ramstein AB, Germany

SECAF Safety Award—Category II; Air Force Operational Test & Evaluation Center, Kirtland AFB, N.M.

W. Stuart Symington Award recipient Sen. Orrin Hatch (R-Utah) (left) and Lifetime Achievement Award recipient James Schlesinger, former Secretary of Defense.

Thomas Cassidy Jr. (l) accepted the John R. Alison Award on behalf of General Atomics Aeronautical Systems Inc. Here, he speaks with Sen. Orrin Hatch.

Crew and Team Awards

Airborne Battle Management Crew; Crew Two, 16th Airborne Command & Control Sq., 116th Air Control Wing, Robins AFB, Ga. Best airborne battle management crew.

Brig. Gen. Ross G. Hoyt Award; Crew of Rescue 5828, 67th Special Operations Sq., RAF Mildenhall, England. Best air refueling crew.

Gen. Curtis E. LeMay Award; Crew of Bone 11, 37th Bomb Sq., 28th Bomb Wing, Ellsworth AFB, S.D. Best bomber aircrew.

Gen. Jerome F. O'Malley Award; Crew of Python 75, 38th Reconnaissance Sq., 97th Intelligence Sq., 55th Operations Support Sq., Offutt AFB, Neb., and 390th IS, Kadena AB, Japan. Best reconnaissance crew.

Gen. Thomas S. Power Award; Crew 201, Capt. Stephen M. Gringage and Capt. Benji L. Johnson, 91st OSS, 91st Missile Wing, Minot AFB, N.D. Best missile combat crew.

Best Space Operations Crew; Alpha Crew, 4th Space Control Sq., 21st Space Wing, Holloman AFB, N.M. Best space operations crew.

Lt. Gen. William H. Tunner Award; Crew of Torqe 05, 40th Airlift Sq., Dyess AFB, Tex. Best airlift aircrew.

Lt. Gen. Howard W. Leaf Award; A-10C Precision Engagement Operational Test Team, Nellis AFB, Nev. Best test team.

Gerald McElvy, ExxonMobil Foundation president, accepts the AFA Chairman's Aerospace Education Award on behalf of the foundation.

Citations of Honor

For the outstanding contribution of an individual or organization to the development of aerospace power.

Recipients	Achievement
4th Air Support Operations Gp./Campbell Barracks, Germany	Supported operations in both Iraq and Afghanistan through 12 months of continuous deployment; directed, through its tactical air control party airmen, 7,100 close air support sorties, supporting US soldiers and marines and coalition forces.
11th Intelligence Sq., Hurlburt Field, Fla.	Processed, exploited, and disseminated full-motion video from the MQ-1 Predator unmanned aerial vehicle, handling 60 percent of MQ-1 missions and breaking new ground with its unique pattern-of-life analysis.
703rd Aeronautical Systems Gp., Wright-Patterson AFB, Ohio	Provided fast development, fielding, and sustainment of the MQ-1 Predator, enabling USAF to more than double combat sorties, and enabled combat fielding of the new larger MQ-9 Reaper hunter-killer at the same time.
Enterprise Operations Sq., Office of Space Technology, Secretary of the Air Force/National Reconnaissance Office, Chantilly, Va.	Achieved 99.998 percent availablity rate in managing NRO's global communications infrastructure, including 19,000 circuits across more than 775 sites, employed by 53,000 users supporting DOD, the Intelligence Community, and allies.
563rd Rescue Gp., Davis-Monthan AFB, Ariz.	Sustained continuous deployment for Southwest Asia and Horn of Africa operations during 2008; supported disaster relief efforts during hurricanes Gustav and Ike; orchestrated the Angel Thunder personnel recovery exercise, helping train nearly 900 US and foreign personnel.

Air National Guard and Air Force Reserve Command Awards

Award	Recipient	Achievement/Employer
CMSgt. Dick Red Award	SMSgt. Kerry A. James, 176th Aircraft Maintenance Sq., Kulis ANGB, Alaska	Best ANG maintainer
Maj. Gen. Earl T. Ricks Award	Aircrew of Torque 95, deployed to Bagram AB, Afghanistan	Best ANG unit airmanship
Outstanding ANG Unit	148th Fighter Wing, Duluth Arpt., Minn.	Top ANG unit of the year
George W. Bush Award, Officer	Capt. Jonathan D. Ness, Washington ANG	Microsoft Corp., Redmond, Wash.
President's Award for AFRC	Team McChord, 446th Airlift Wing, McChord AFB, Wash.	Best AFRC aircrew of the year
AFRC Unit Award	336th Air Refueling Sq., March ARB, Calif.	Best AFRC unit of the year
AFRC Citizen Airman Award, Officer	Maj. Michael V. Bautista, 728th Airlift Sq., McChord AFB, Wash.	Southwest Airlines, headquartered in Dallas
AFRC Citizen Airman Award, Enlisted	MSgt. Daniel A. Schultz, 911th Aircraft Maintenance Sq., Pittsburgh Arpt./ARS, Pa.	Reed & Witting Co., Pittsburgh

2009 AFA Membership and Activity Awards

AFA Member of the Year

David Cummock (l), AFA's 2009 Member of the Year, chats with AFA National Director Jerry White.

Arthur C. Storz Sr. Membership Award

Presented to the AFA chapter or individual member producing the highest number of new members during the 12-month period ending June 30, 2009, as a percentage of total chapter membership as of July 1, 2008.

Chapter Award
Fairbanks Midnight Sun, Alaska
President Harry Cook

Gold Card Recipient

Donald J. Harlin
Georgia

AFA National Aerospace Teacher of the Year

William L. Austin
Sumter, S.C.

Distinguished Sustained Aerospace Education Award

Mary Anne Thompson
Massachusetts

D. W. Steele Sr. Memorial Award

(AFA Unit of the Year: Paul Revere, Mass.)

Angela Dupont, president of the Paul Revere Chapter, and Donald Harlin, AFA chaplain and 2009 Gold Card Recipient, play around with Harlin's service dog, Goldie.

President Harry Cook (r) received this year's Storz Membership Award on behalf of the Fairbanks Midnight Sun Chapter (Alaska). Also shown: AFA Treasurer Steven Lundgren.

Jack Gross Awards

Presented to the chapter in each size category with the highest number of new members as a percentage of chapter size at the beginning of the membership year. A minimum of 10 is required.

Small Chapter
Charlemagne, Germany
President Nick Popp

Medium Chapter
Fairbanks Midnight Sun, Alaska
President Harry Cook

Large Chapter
Gen. B. A. Schriever Los Angeles, Calif.
President Chris Kalivas

Extra Large Chapter
Montgomery, Ala.
President James Dotherow

Chapter Larger Than 1,500
Lance P. Sijan, Colo.
President George T. Cavalli

Outstanding State Organization

Florida
President John T. Brock

Outstanding Chapters by Size

Small Chapter
(20-200 members)
Gen. David C. Jones, N.D.
President Ronald L. Garcia

Medium Chapter
(201-400 members)
Roanoke, Va.
President James H. McGuire

Extra Large Chapter
(901+ members)
Lance P. Sijan, Colo.
President George T. Cavalli

Unit Exceptional Service Awards

Best Single Program
Alamo, Tex.
President Gary L. Copsey

Communications
Hurlburt, Fla.
President Dann D. Mattiza

Community Partners
McChord, Wash.
President Robert Branscomb

Community Relations
Eglin, Fla.
President Jeffrey L. Fanto

Overall Programming
Wright Memorial, Ohio
President Kent D. Owsley

Veterans' Affairs
Central Florida, Fla.
President James E. Callahan

EDUCATION AWARDS

Aerospace Education Excellence Award

Presented to one chapter in each of the AFA size categories annually for excellence in aerospace education programming. To qualify, a chapter must have received the Aerospace Education Achievement Award this year.

Small Chapter
Northern Shenandoah Valley, Va.

Large Chapter
Hurlburt, Fla.

Extra Large Chapter
Gen. E. W. Rawlings, Minn.

Aerospace Education Achievement Award

Presented to chapters for outstanding achievement in aerospace education programming.

Albuquerque, N.M.
Brig. Gen. James R. McCarthy, Fla.
Blue Ridge, N.C.
C. Farinha Gold Rush, Calif.
Cape Canaveral, Fla.
Central Florida, Fla.
Cheyenne Cowboy, Wyo.
Chicagoland-O'Hare, Ill.
Cochise, Ariz.
Col. H. M. "Bud" West, Fla.
Col. Loren D. Evenson, Fla.
Donald W. Steele Sr. Memorial, Va.
Danville, Va.
Gen. David C. Jones, N.D.
Eglin, Fla.
Falcon, Fla.
Gen. E. W. Rawlings, Minn.
Central Oklahoma (Gerrity), Okla.
Gold Coast, Fla.
Hurlburt, Fla.
Jerry Waterman, Fla.
Lance P. Sijan, Colo.
Langley, Va.
McChord, Wash.
Miami, Fla.
Montgomery, Ala.
Gen. Nathan F. Twining, Fla.
Northern Shenandoah Valley, Va.
Red Tail Memorial, Fla.
Roanoke, Va.
Swamp Fox, S.C.
Thomas W. Anthony, Md.
Wright Memorial, Ohio

Special Recognition—Sustained New Member Recruitment

Sixty-two chapters have attained the quarterly new member recruitment goal for three consecutive quarters, extending from October 2008 to June 2009. The full listing can be found online at www.afa.org/members/mawds.asp

Special Recognition—Chapter Growth

Sixty-eight chapters have realized a growth in total membership from June 2008 to June 2009. The full listing can be found online at www.afa.org/members/mawds.asp

Special Recognition—State Growth

These states have realized a growth in total membership from June 2008 to June 2009.

Alabama
Alaska
Arizona
Arkansas
Florida
Indiana
Louisiana
Mississippi
New Mexico
North Dakota
Rhode Island
Tennessee
Virginia

Special Recognition—Region Growth

These regions have realized a growth in total membership from June 2008 to June 2009.

Florida
South Central
Southwest

MEMBERSHIP AWARDS

Community Partner Membership Awards

Gold Award

Presented in the field to chapters whose Community Partners represent at least six percent of overall chapter membership, with a minimum number of Community Partners.

Altus, Okla.
Central Oklahoma (Gerrity), Okla.
Cheyenne Cowboy, Wyo.
Col. H. M. "Bud" West, Fla.
Contrails, Kan.
Enid, Okla.
Fairbanks Midnight Sun, Alaska
Fort Dodge, Iowa
Fort Wayne, Ind.
Gen. Charles L. Donnelly Jr., Tex.
Gen. David C. Jones, N.D.
Lance P. Sijan, Colo.
Leigh Wade, Va.
Lloyd R. Leavitt Jr., Mich.
McChord, Wash.
Mercer County, N.J.
Meridian, Miss.
MiG Alley, South Korea
Montgomery, Ala.
Northeast Texas, Tex.
Richard D. Kisling, Iowa
Steel Valley, Ohio
Swamp Fox, S.C.
William J. "Pete" Knight, Calif.

Achievement Award

Presented in the field to chapters whose Community Partners represent at least three percent of overall chapter membership, with a minimum number of Community Partners.

Brig. Gen. Bill Spruance, Del.
Alamo, Tex.
C. Farinha Gold Rush, Calif.
Carl Vinson Memorial, Ga.
Chautauqua, N.Y.
Cochise, Ariz.
David D. Terry Jr., Ark.
Del Rio, Tex.
Florida Highlands, Fla.
Frank Luke, Ariz.
Gen. B. A. Schriever Los Angeles, Calif.
Gen. Bruce K. Holloway, Tenn.
Golden Triangle, Miss.
Highpoint, N.J.
Hurlburt, Fla.
Joe Walker-Mon Valley, Pa.
Langley, Va.
Maj. Gen. Charles I. Bennett Jr., Calif.
Miami, Fla.
Paul Revere, Mass.
Richard I. Bong, Minn.
Robert H. Goddard, Calif.
Shooting Star, N.J.
Ute-Rocky Mountain, Utah
Red Tail Memorial, Fla.
Total Force, Pa.

Individual Awards

Presented for outstanding service.

Chairman's Citation

Ronald Adams, Mass.
Joseph Bisognano, Mass.
George Cavalli, Colo.
Terry Cox, Okla.
James Diehl, Okla.
Dennis Moran, Fla.
James Simons, N.D.
Eric Taylor, Pa.
Blair Ellis, Va.
Kevin Jackson, D.C.
James McGuire, Va.
Curt Osterheld, D.C.

Central East Region

Medal of Merit

Gary Austin, Md.
Rene Bergeron, D.C.
Carl Bess, Va.
Norm Brander, Va.
Peter Jones, Va.
Bob King, Del.
Tom Moncure, Va.
Wade McRoberts, Va.
Terry Young, Va.

Exceptional Service Award

Keith Ebert, Va.

Far West Region

Medal of Merit

Ron Azarcon, Calif.
Philip Barger, Calif.
Robert Barrow, Calif.
Rick Chisholm, Calif.
Jan Clawson, Calif.
Norman Marous, Calif.

Exceptional Service Award

Nora Ruebrook, Hawaii

Florida Region

Medal of Merit

Michael Clark, Fla.
Jeff Fanto, Fla.
Michael Liquori, Fla.
Clifford Palmer, Fla.
Shirley Pigott, Fla.
Ricardo Soria, Fla.
Jeff Spraggins, Fla.

Exceptional Service Award

Michael Emig, Fla.
Grady Jordan, Fla.
Jeri Ann Martin, Fla.
William Palmby, Fla.

Great Lakes Region

Medal of Merit

Renee Albright, Ohio
Anthony Boehm, Ohio
James Fultz, Ind.
Glenn Harland, Ind.
Julie Livingston, Ohio
Brandon Monticue, Ind.
Sharon Murner, Ohio
Jane Lori Stone, Ohio

Exceptional Service Award

William Draper, Ind.
Marjorie Feeback, Ind.
William Grider, Ind.
Everett Odgers, Ohio

Midwest Region

Medal of Merit

Lang Anderson, Neb.
Diane Bartels, Neb.
Raymond Cain, Iowa
Charles Carlson, Iowa
Deann Faiferlick, Iowa
Steven Plamann, Neb.

Exceptional Service Award

Robert Tovado, Neb.

New England Region

Medal of Merit

John Christopher, Mass.
Peter Colerico, Mass.
Linda Jean, Mass.
Marian McGovern, Mass.
Luis Nunez, Mass.
Keith Taylor, Mass.
Robert Wilkinson, R.I.

Exceptional Service Award

John Hasson, Mass.
Yvonne Thurston, Mass.

North Central Region

Medal of Merit

Daniel Becker, N.D.
Clark Culbertson, N.D.
Bonnie Goldschmidt, N.D.
Paul Goldschmidt, N.D.
Kellie Lewis, N.D.
Heidi Priestly, Minn.

Exceptional Service Award

Milton Arneson, N.D.

Northeast Region

Medal of Merit

Charles Harker, Pa.
George Henderson, Pa.
Nick Mullaney, N.J.
Judith Nunamann, N.J.
Ray Wienk, N.Y.
Gary Wolbert, Pa.

Exceptional Service Award

Al Parise, N.Y.
Cathy Ward, N.Y.

Northwest Region

Medal of Merit

Gary Brackett, Wash.
Robert Branscomb, Wash.
Art Cornelius, Ore.
John Lee, Ore.
Vicky Mohler, Wash.
Phil Szymkowicz, Ore.

Exceptional Service Award

Laird Hansen, Wash.

Rocky Mountain Region

Medal of Merit

Henry Baird, Colo.
Rick Peterson, Colo.
Hank Scarangella, Colo.
Dusty Thein, Wyo.
David Tobin, Colo.
R. J. Schultz, Colo.

Exceptional Service Award

Debbie Estrem, Colo.
Kevin Estrem, Colo.
Walter Saeger, Utah
Gayle White, Colo.

South Central Region

Medal of Merit

Morris Cash, Ark.
James Dotherow, Ala.
John Phillips, Ala.
Andy Potter, Ala.

Exceptional Service Award

Susan Mallett, Ala.

Southeast Region

Medal of Merit

Matthew Dunn, Ga.
Sam Finklea, S.C.
David Klinkicht, N.C.
Nick Lacy II, Ga.
Will Newson, Ga.
Ronald Powell, S.C.
Arthur Rooney, S.C.

Exceptional Service Award

Ralph Hightower, N.C.

Southwest Region

Medal of Merit

Luisa Bailey, Ariz.
Ernest Denecke, N.M.
Frederick Harsany, N.M.
Sharon Marvin, Ariz.
Donald Sexton, Nev.
Harold Thomas, Ariz.

Exceptional Service Award

Gerald Ashley, Ariz.

Texoma Region

Medal of Merit

Deborah Bates, Okla.
Douglas Chown, Okla.
William Coggins, Tex.
Joan Lopez, Tex.
Michael Nishimuta, Tex.
David Pope, Tex.
Bruce Shelton, Okla.
Adam Walker, Tex.
Debra Westmoreland, Tex.

Exceptional Service Award

Joyce Habina, Tex.
Kelly Jones, Tex.
Dan Ohnesorge, Okla.
Martha Ribeiro, Okla.

Air Force Councils

Air National Guard Council

Maj. Gen. Fred R. Sloan, ANG (Ret.) (Chair)

Brig. Gen. Hugh T. Broomall
TSgt. Daniel Dierickx
Maj. Gen. Michael J. Haugen, ANG (Ret.)
TSgt. Jennifer Jackson
Maj. Gen. William B. Lynch, ANG (Ret.)
SMSgt. John Lyon
CMSgt. Jon Rosa
CMSgt. Andrew Stadler
Col. J. Kurt Vogel Jr.
Maj. Gen. Mason C. Whitney, ANG (Ret.)
Capt. Stacy Williamson
Lt. Gen. Harry M. Wyatt III (Advisor)
SMSgt. Jennifer C. McKinney (Liaison)

Civilian Advisory Council

Jeffrey C. Allen (Chair)

Sheila Barboza
James Hamilton
Raymond Pabilonia
Cynthia Manchester (Liaison)

Company Grade Officers Council

Capt. Shay Edwards (Chair)

Capt. Carlos Ferrer
Capt. Dave Gaulin
Capt. Katherine Hetland
Capt. Chris Tooman
Capt. Douglas Hickey (Liaison)

Enlisted Council

CMSgt. James E. Davis (Chair-Liaison)

SSgt. Johanna S. Aviles
SMSgt. Mary A. Bechdel
MSgt. Tyrone F. Bingham
SrA. Channel H. Bolton-Scholl
TSgt. John T. Carter
TSgt. Manuel J. Herrera
TSgt. Benjamin P. Horton
TSgt. Jennifer S. Laufer
TSgt. Marisol M. Lozada
MSgt. Christopher W. Pollock
SrA. Alexander W. Royal
SMSgt. Jeffery E. Steagall
MSgt. Jason D. Hughes

Reserve Advisory Council

Brig. Gen. Eric W. Crabtree (Chair)

Maj. Ericka Erewington
SMSgt. Ronald A. Colaninno
Capt. Shari E. Crenshaw
SMSgt. Airton D. Dapaixao
TSgt. Matthew A. Harding
Maj. John W Heck
SMSgt. Lucinda A. Hines
MSgt. Christopher Neitzel
MSgt. David Noblit
Col. Mark A. Ross (Advisor)
CMSgt. David Conaway (Liaison)

AFA

Veterans/Retiree Council

Walter S. Hogle Jr. (Chair)

Rod Ellison
Richard E. Fitzhugh
Maynard N. Heth
Russell Mank
Jimmy L. Miller
Donald Taylor
Elia T. Vasilopoulos
Maria Vinup
Tom Wozniak

Verbatim

By John T. Correll, Contributing Editor

The Essential Airplane

"The F-35 is at root the core of our combat tactical aircraft in the future. ... My view is we cannot afford, as a nation, not to have this airplane."—***Secretary of Defense Robert M. Gates, touring Lockheed Martin plant in Fort Worth, Tex., Aug. 31.***

Cut the Essential Airplane

"Rather than buying both new long-range bombers and thousands of short-range F-35 fighters, DOD might consider whether the new bombers—given their much larger payload capacity—could represent a cost-effective substitute for some number of these new fighters."—***Center for Strategic and Budgetary Assessments report, August.***

Legacy of the Nation Builders

"Had we gone into Afghanistan in 2001, knocked over the Taliban, driven out al Qaeda, and departed, we would not be facing what we do today. But we were seduced by the prospect of converting a backward tribal nation of 25 million, which has resisted every empire to set foot on its inhospitable soil, into a shining new democracy that would be a model for the Islamic world. Now, whatever Obama decides, we shall pay a hellish price for the hubris of the nation builders."—***Patrick J. Buchanan, conservative political commentator,*** **Miami Herald,** ***Aug. 16.***

Lobbyist-Industrial Complex

"You've heard the stories: the indefensible no-bid contracts that cost taxpayers billions and make contractors rich; the special interests and their exotic projects that are years behind schedule and billions over budget; the entrenched lobbyists pushing weapons that even our military says it doesn't want. The impulse in Washington to protect jobs back home building things we don't need has a cost that we can't afford. This waste would be unacceptable at any time, but at a time when we're fighting two wars and facing a serious deficit, it's inexcusable."—***President Obama, Veterans of Foreign Wars convention, Aug. 17.***

Buzzing the Bad Guys

"The first thing we do [in Afghanistan] is fly overhead, and the bad guys know airpower is in place and oftentimes that's enough. That ends the fight, they vamoose. The A-10 has a very distinct sound. The cannon on an A-10 is horrifically capable and our adversaries know it. When they hear the sound of an A-10, they scatter."—***Lt. Gen. Gilmary M. Hostage III, commander, US Air Forces Central Command, Associated Press, Aug. 14.***

Communicating in the Muslim World

"I would argue that most strategic communication problems are not communication problems at all. They are policy and execution problems. Each time we fail to live up to our values or don't follow up on a promise, we look more and more like the arrogant Americans the enemy claims we are."—***Adm. Michael G. Mullen, Chairman of the Joint Chiefs of Staff,*** **Joint Forces Quarterly,** ***Aug. 28.***

Get Out of Afghanistan

"Afghanistan would need hundreds of thousands of coalition troops, perhaps for a decade or more. That is inconceivable. So, instead, forces should be substantially reduced to serve a comprehensively revised policy: America should do only what can be done from offshore, using intelligence, drones, cruise missiles, air strikes, and small, potent Special Forces units, concentrating on the porous 1,500-mile border with Pakistan, a nation that actually matters."—***Columnist George F. Will,*** **Washington Post,** ***Sept. 1.***

Boots, Not Bombs

"Success in Afghanistan serves America's own national security interests. As for securing Afghanistan, no smart-missile attacks can substitute for boots on the ground."—***M. Ashraf Haidari, political counselor, Embassy of Afghanistan in Washington, D.C., letter to*** **Washington Post,** ***Sept. 7.***

Not Again

"The US walked away from Afghanistan once before, following the Soviet collapse. The result was 9/11. We must not make that mistake again."—***Sen. Lindsey Graham (R-S.C.), Sen. Joe I. Lieberman (I-Conn.), and Sen. John McCain (R-Ariz.), op-ed,*** **Wall Street Journal,** ***Sept. 14.***

Limits of UAVs

"Because unmanned aircraft have small payloads and limited maneuverability, there are many missions they cannot perform even against poorly equipped enemies. In other words, they are a niche capability for accomplishing certain types of missions against certain types of adversaries, not a revolution in warfighting. So while unmanned aircraft may be the Pentagon's technological flavor of the day, don't expect them to do the heavy lifting when a real enemy comes along."—***Loren B. Thompson, Lexington Institute, Aug. 18.***

It Takes a Carrier

"Current and future operations require aircraft to be there, on station, and responsive to asymmetric threats, while being ready to attack moving ground targets. ... What makes aircraft carriers unique has not changed over time; they are independent, potent, and when they show up off the coast, impossible to ignore. Shore-based aircraft and long-range missiles all play a part, but the fact that the geographic coordinates of their hangars and bases never change makes them instant targets. When the requirement for host-nation permission is added to the mix, diplomatic challenges often hamper operational effectiveness."—***Rear Adm. Terry B. Kraft, "It Takes a Carrier," Naval Institute*** **Proceedings,** ***September.***

Calley Apologizes

"There is not a day that goes by that I do not feel remorse for what happened that day in My Lai. I feel remorse for the Vietnamese who were killed, for their families, for the American soldiers involved, and their families. I am very sorry."—***Former Army 1st Lt. William L. Calley Jr., who led the massacre of hundreds of villagers at My Lai, South Vietnam, in 1968,*** **Atlanta Journal-Constitution,** ***Aug. 22.***

Predictors and Prediction

"As we go forward today killing the F-22, the Presidential helicopter, the combat search and rescue helicopter, the kinetic energy interceptor, we do so with the hope that today's military and civilian leaders are more prescient than their predecessors in predicting our future needs."—***Sen. Daniel K. Inouye (D-Hawaii), chairman of the Senate Appropriations Committee, Sept. 9.***

AFA National Report

natrep@afa.org

By Frances McKenney, Assistant Managing Editor

National Teacher of the Year

At September's Air Force Association Air & Space Conference and National Convention outside Washington, D.C., a retired senior master sergeant received AFA's highest honor for teachers.

William L. Austin, from Pocalla Springs Elementary School in Sumter, S.C., was named National Aerospace Teacher of the Year.

The **Swamp Fox Chapter (S.C.)** nominated him for the honor.

Austin enlisted in 1972, becoming a munitions systems specialist. He earned a degree in aerospace technology from the Community College of the Air Force in 1991 and, in 1994, retired from active duty. That year, he also earned a bachelor's degree in education from the University of South Carolina and began his teaching career at Pocalla Springs. He taught third, fourth, and fifth grade.

After receiving a master's degree from South Carolina State University, he became a curriculum coach. Today, he supervises science, math, and technology instruction and ensures professional development of the teachers.

As an adjunct professor for the College of Charleston, he teaches a summer course in science methods for elementary and middle school teachers.

Austin is the 24th recipient of AFA's National Aerospace Teacher of the Year award.

William Austin, AFA's National Aerospace Teacher of the Year, and fifth grader Michael Brown watch the vortex created as water rushes into the lower bottle. Austin is a curriculum coach at Pocalla Springs Elementary School in Sumter, S.C.

AFA at the Air Force Marathon

Several members of the **Wright Memorial Chapter** in Dayton, Ohio, volunteered at the annual Air Force Half-Marathon, manning a water stop on the course that ran through Wright-Patterson Air Force Base.

Wanda J. Lander organized the volunteers, signing them up, directing them in assembling runner information packets before the race, and helping them hand out water and Gatorade to the runners.

Eugene A. Longo, Tony Chitwood, and Nathan Flack organized cadet volunteers from local high schools and universities. The cadets worked at the registration tables and, during the race, filled cups for the "hydration station." It was located at the base's tennis club, just after mile marker five.

Other chapter volunteers included President Kent D. Owsley, VP Jeff A. Liffick, Treasurer Charles Spencer, W. Ron Goerges, and Joanne Powell.

Some 3,800 runners completed the 13.1-mile course that began and ended at the US Air Force Museum.

Just over 2,000 others did the full 26.2-mile marathon. Their numbers included **Lexington Chapter** President Daniel Wells, from Kentucky. A veteran of 50 marathons in 50 states—a feat he did in seven years—Wells completed this marathon in five hours, 22.5 minutes. He is 32 years old.

Dave Johnston, 35, of Xenia, Ohio, won the marathon, coming in at two hours, 30 minutes, 41 seconds. The first military finisher, Ron Young, 29, of Gulf Breeze, Fla., came in third. The first female across the finish line was Kate Papenberg, 23, also the top military female finisher.

The first Air Force Marathon at Wright-Patterson took place in September 1997.

Relighting the Eternal Flame

Through the efforts of the **Lt. Col. B. D. "Buzz" Wagner Chapter,** the eternal flame in Johnstown, Pa., burns once again.

A city landmark and a point of interest for visitors, the eternal flame memorializes 2,209 people who died in the May 1889 Johnstown Flood. The flood was caused by a large rainstorm and a weakened dam that held 20 million tons of water.

Due to wind and weather, the eternal flame had trouble staying lit virtually from the time of its 1990 construction, said Chapter President William B. Burns. Solving the problem took three years and many hands.

Community Partner Timothy Raab of Air Management Inc. donated an electronic ignition system, shipped in at his expense from California. He also designed a cap to top the lantern-style housing of stainless steel and tempered glass that surrounds the flame. The cap and the ignition system are key to keeping the flame lit, said Burns.

For his part, Burns persuaded a concrete company to refurbish the border surrounding the eternal flame and got the city public works department to repair brickwork. Chapter Treasurer James M. Kirkstadt's connections resulted in the Johnstown Garden Club handling the landscaping.

The flame was tested all summer long. One August day, Burns was at a baseball game across the street from the flame, when a thunderstorm rolled through, with torrential rains and high

winds. "The flame didn't even flicker," Burns said.

So on Sept. 16, the chapter held an official relighting ceremony. Pennsylvania State President Robert C. Rutledge arranged for a color guard of AFJROTC cadets from Ligonier Valley to post the colors, and other cadets from the same unit performed as an honor guard. Johnstown Flood Museum Executive Director Richard Burkert was among the guest speakers at the early evening gathering.

More Chapter News

■ The **Tennessee Valley Chapter (Ala.)** celebrated the Air Force's 62nd birthday in September in Huntsville, Ala., home to the Army's Redstone Arsenal. Thus, the guest speaker, retired Brig. Gen. Gary S. Connor, looked out at the gathering of 60 guests and called them an "oasis of blue in a sea of green." Connor was deputy program manager for the ballistic missile defense system at the Missile Defense Agency until retiring Sept. 1. To spotlight the Air Force anniversary, the chapter also sponsored billboards in at least five locations in Huntsville. They were displayed all week, said chapter member Russell V. Lewey. The message: "Happy Birthday, US Air Force—Back Then and Still Today, The World's Premier Airpower!"

■ In Klamath Falls, Ore., the **Bill Harris Chapter's** Teacher of the Year received two awards in recognition of nearly 40 years at the blackboard. Sharon S. Lewis, a resource room teacher at Henley Elementary School, accepted the AFA award from Air National Guard Lt. Col. Curtis A. Waite, who is the chapter president, and from the chapter's namesake, World War II triple ace Bill Harris. Lewis then received a second award certificate from the Klamath County Chamber of Commerce. The ceremony took place at a school staff meeting and was attended by Col. Richard W. Kelly, vice commander of the ANG's 173rd Fighter Wing at Klamath Falls Airport.

■ Retired Col. Michael J. Berenc, the senior aerospace science instructor for the AFJROTC program at Lafayette Senior High School in Ballwin, Mo., recently received honors as State Teacher of the Year. The **Spirit of St. Louis Chapter**—headed by Gary M. Young—had nominated him, and several chapter members were on hand at the teachers' assembly where Berenc received an AFA Certificate of Appreciation, a check, and an AFA jacket. The guest who traveled the farthest to make the assembly was undoubtedly State President Patricia J. Snyder, who drove nearly 600 miles round-trip, from Overland Park, Kan., to the school, located in a St. Louis suburb.

■ At their August meeting, the **Cochise Chapter** of Sierra Vista, Ariz., gave early recognition to two members who were to be inducted into the Arizona Veterans Hall of Fame in October. Wil-

More photos at http://www.airforce-magazine.com, in "AFA National Report"

Reunions

reunions@afa.org

601st and 615th ACWRON, Germany. April 25-30, 2010 in Santa Fe, NM. **Contact:** Francis Gosselin (352-588-9295) (fgosselin@tampabay.rr.com).

Seeking Iceland radar units, including the **667th, 932nd, 933rd, and 934th AC&W Sqs** (1952-2006), for a reunion in 2010. **Contact:** William Chick (803-422-9486) (littlechick@msn.com). ■

E-mail unit reunion notices four months ahead of the event to reunions@afa.org, or mail notices to "Reunions," *Air Force* Magazine, 1501 Lee Highway, Arlington, VA 22209-1198. Please designate the unit holding the reunion, time, location, and a contact for more information. We reserve the right to condense notices.

liam P. Hess and Gene Fenstermacher were among 16 inducted Oct. 30 in Phoenix. Hess, a chapter founding member and retired master sergeant, covers military affairs for a local newspaper. Fenstermacher, a retired colonel, serves in several veterans organizations and on an environmental commission. He is the chapter's legislative affairs VP. Chapter officials prepared Hess' nomination package for the Hall of Fame and endorsed Fenstermacher's nomination.

■ **Hawaii Chapter** President Nora Ruebrook represented AFA at a memorial service marking the 59th anniversary of the beginning of the Korean War. Ruebrook joined guests from numerous veterans organizations in a wreath-laying ceremony at Honolulu's National Memorial Cemetery of the Pacific, known locally as Punchbowl. The number of wreaths laid in the annual ceremony corresponds to the number of years that have passed since the war commenced on June 25, 1950.

■ Through an AFA Chapter Matching Grant, the **Capt. Eddie Rickenbacker Memorial Chapter (Ohio)** donated $2,000 to the Motts Military Museum in Columbus, Ohio. Museum Director Warren E. Motts and museum Treasurer Ronald Albers—both chapter members—accepted the grant. The funds are for a NASA exhibit. ■

Air Force Association/AFA Veteran Benefits Association
Air Force Memorial Foundation
Consolidated Statement of Activities

Year Ended Dec. 31, 2008

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Revenue				
Contributions:				
Calendar	$272,763	$0	$0	$272,763
General	1,025,540		116,400	1,141,940
Air Force Memorial Foundation	586,934			586,934
Lapel Pin	250,475			250,475
Mailing Labels	222,986			222,986
Visions	107,247			107,247
Central Florida Gala	-			-
Decals	143,227			143,227
Los Angeles Ball	-			-
Fellowships	29,450	0	0	29,450
Total Contributions	2,638,622	-	116,400	2,755,022
Investment Earnings	(240,727)			(240,727)
Aerospace Technology Expo & Conference	3,009,512			3,009,512
Membership Dues	2,324,348			2,324,348
Member Group Insurance Programs	1,987,888			1,987,888
Magazine	1,568,534			1,568,534
Building Operations	1,340,830			1,340,830
Royalties	793,779			793,779
Symposia	609,664			609,664
Industrial Associates	50,926			50,926
Other	3,552			3,552
Net Assets Released From Restrictions	728,827	(728,827)	0	-
Total Revenue and Support	14,815,755	(728,827)	116,400	14,203,328
Expenses				
Program Services:				
Membership	2,969,581			2,969,581
Member Group Insurance Programs	782,360			782,360
Professional Development	1,821,218			1,821,218
Magazine	3,946,529			3,946,529
Aerospace Technology Expo & Conference	556,965			556,965
Aerospace Education	613,467			613,467
Field Operations and Communications	901,424			901,424
Calendar	-			-
Lapel Pin	-			-
Industrial Associates	5,662			5,662
Mitchell Institute	96,595			96,595
Air Force Memorial	338,590			338,590
Total Program Services Expenses	12,032,391	0	0	12,032,391
Supporting Services:				
Building Operations	1,215,658			1,215,658
General and Administrative	1,681,016	0	0	1,681,016
Total Supporting Services Expenses	2,896,674	0	0	2,896,674
Fundraising Expenses	821,144	0	0	821,144
Total Expenses	15,750,209	-	-	15,750,209
Change in Net Assets Before Other Items	(934,454)	(728,827)	116,400	(1,546,881)
Cumulative Effect of Change in Accounting Principle-FAS 158	-	0	0	-
Change in Pension Liability	(8,985,717)			(8,985,717)
Unrealized Loss on Marketable Securities	(4,389,520)			(4,389,520)
Fair Value Loss on Interest Rate Swap Agreement	(578,959)			(578,959)
Capital Additions: Life Memberships Granted, Net	286,005			286,005
Transfer of Memorial to Department of Defense	-			-
Adoption of FSP 117-1 Endowments	(13,001)	0	(13,001)	-
Change in Net Assets	(14,615,646)	(728,827)	129,401	(15,215,072)
Net Assets - Beginning of Year	36,062,290	2,147,123	724,595	38,934,008
Net Assets - End of Year	$21,446,644	$1,418,296	$853,996	$23,718,936

Air Force Association/AFA Veteran Benefits Association
Air Force Memorial Foundation
Consolidated Statement of Financial Position

Dec. 31, 2008

Assets

Cash and Investments	
Cash and Cash Equivalents	$4,350,626
Certificates of Deposit	250,000
Marketable Securities:	
Debt Securities	6,095,971
Equity Securities	8,041,649
Total Marketable Securities	14,137,620
Total Cash and Investments	18,738,246
Receivables	
Trade, Net of Allowance for Doubtful Accounts of $4,029	1,356,637
Pledges Receivable	1,307,423
Premium Refunds	854,862
Accrued Interest	145,724
Other	-
Total Accounts Receivable	3,664,646
Prepaid Expenses	320,296
Inventory	71,815
Property and Equipment	
Land	929,491
Building and Improvements	21,104,379
Furniture and Equipment	1,335,533
	23,369,403
Less Accumulated Depreciation	9,386,547
Total Property and Equipment	13,982,856
Prepaid Pension Cost	-
Other Assets	1,663,089
Total Assets	$38,440,948

Liabilities and Net Assets

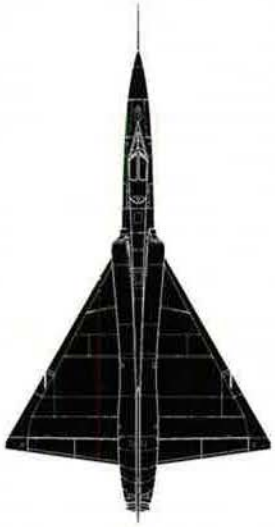
Liabilities	
Accounts Payable	$1,863,945
Premium Refund Payable	260,000
Accrued Expenses	504,993
Deferred Revenue:	
Membership Dues	933,296
Magazine Subscriptions	87,236
Meeting	686,208
Other	-
Total Deferred Revenue	1,706,740
Note Payable	6,360,715
Interest Rate Swap Agreement	578,959
Accrued Pension Liability	3,446,660
Total Liabilities	14,722,012
Commitments	
Net Assets	
Unrestricted	21,446,644
Temporarily Restricted	1,418,296
Permanently Restricted	853,996
Total Net Assets	23,718,936
Total Liabilities and Net Assets	$38,440,948

Treasurer's Note: The statements presented here consolidate the financial activities of AFA, VBA, and the Air Force Memorial Foundation. While the three organizations operate as separate entities, their financial activity is required to be consolidated since they share a common Board of Directors. The consolidated format is in compliance with SOP 93, *Reporting of Related Entities by Not for Profit Organizations.*

Airpower Classics

Artwork by Zaur Eylanbekov

F-106 Delta Dart



In the world of airpower, it was called the "Ultimate Interceptor," and rightly so. The USAF F-106 Delta Dart offered the fullest and best expression of a design line that began with the pre-World War II delta wing work of Alexander Lippisch in Germany and extended down through the Convair XF-92 and F-102 Delta Dagger aircraft.

The F-106 was envisaged as a specialized, all-weather, missile-armed interceptor optimized to shoot down bombers. With a larger engine, an "area ruled" fuselage, and the excellent (if difficult to maintain) Hughes fire-control system, the Convair-built "Six," as it was also called, defended US skies for 29 years. The all-metal aircraft featured wings with a 60 degree sweep. Pilots considered it a delight to fly.

The first F-106A entered service with the Air Defense Command's 498th Fighter Interceptor Squadron at Geiger AFE, Wash., in July 1959. The Delta Dart was modified over the years with new ejection seats, canopy, and armament. Moreover, it was fitted with the MA-1 electronic guidance and fire-control system, which operated with the SAGE (Semi-Automatic Ground Environment) defense system. The SAGE system allowed the F-106 to be flown automatically from wheels up on takeoff to flareout before touchdown.

Four F-106 units were deployed to the Far East, but they never engaged in combat. The fighter was retired as an interceptor in the Air Force in 1988, but was flown for a few more months by Air National Guard squadrons. The aircraft was then modified to become the QF-106 drone. The F-106 was the primary all-weather interceptor aircraft for the United States Air Force from the 1960s through the 1980s. It turned out to be the last such dedicated interceptor in USAF service.

—Walter J. Boyne

This aircraft: F-106A—*#59-0060*—as it looked while in service with 159th FIS, 125th FIG, Florida ANG, Jacksonville, Fla., circa 1980.

In Brief

Designed, built by Convair ★ first flight Dec. 26, 1956 ★ crew one or two ★ number built 340 ★ **Specific to F-106A:** one Pratt & Whitney J75 turbojet engine ★ armament one AIR-2 Genie rocket with nuclear warhead; four internal AIM-4 or AIM-26 Falcon AAMs ★ max speed 1,525 mph ★ cruise speed 650 mph ★ max range 1,275 mi ★ weight (loaded) 39,195 lb ★ span 38 ft 3 in ★ length 70 ft 9 in ★ height 20 ft 3 in.

Famous Fliers

Notable: Jack Broughton, author of *Going Downtown*. **Record Setter:** Joseph Rogers, world speed record of 1,525.96 mph in a Delta Dart at 40,500 ft in December 1959. **Test pilot:** R. L. Johnson. **Et Cetera:** Gary Foust, who on Feb. 2, 1970 ejected from an F-106 that subsequently landed by itself.

Interesting Facts

Supercruised (achieved supersonic speed without afterburner) at low altitude ★ had external tanks rated for supersonic flight ★ used to train astronauts ★ equipped with faulty ejection seats that caused deaths of several pilots ★ "scrambled"—went from alert to takeoff—in under three minutes.

An F-106 Delta Dart intercepts a Soviet Tu-95 Bear.

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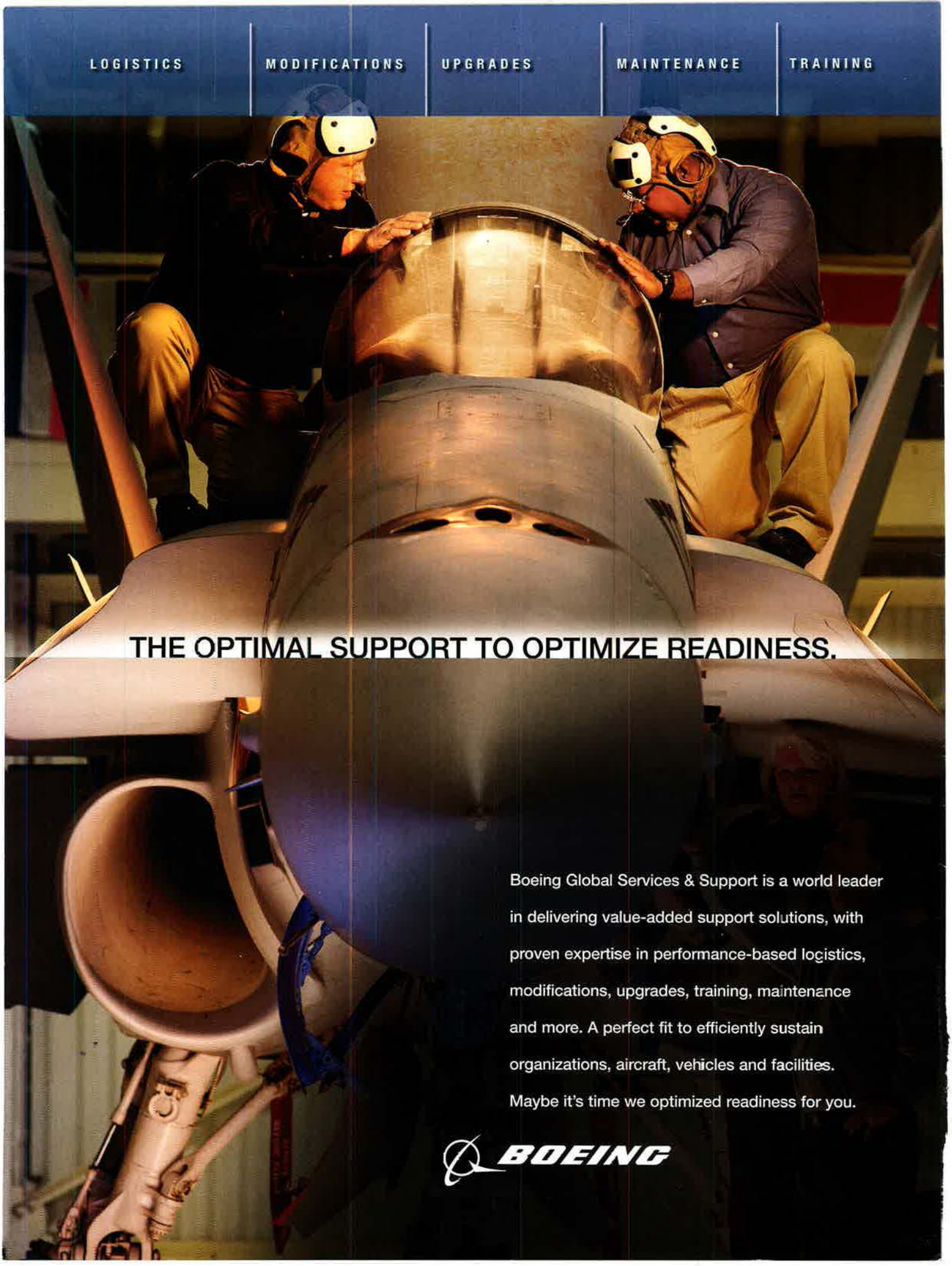
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