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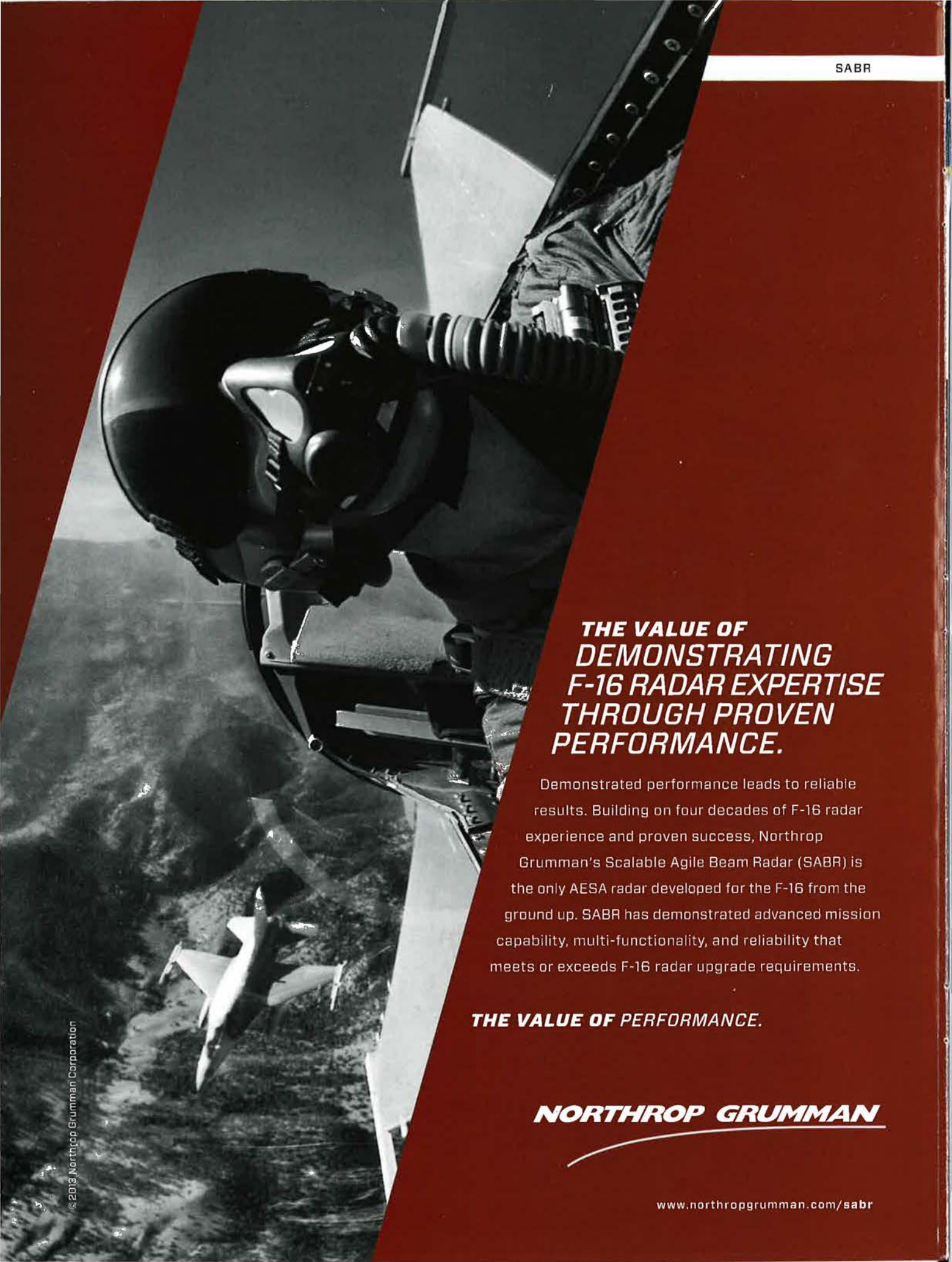
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About the cover: U-2 instructor pilots at Beale AFB, Calif. See "Spy Eyes in the Sky," p. 32. USAF photo by John Schwab.

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Publisher
Craig R. McKinley

Editor in Chief
Adam J. Hebert

Editorial afmag@afa.org

Editor
Suzann Chapman

Executive Editors
Michael C. Sirak
John A. Tirpak

Senior Editors
Amy McCullough
Marc V. Schanz

Associate Editor
Aaron M. U. Church

Contributors
Walter J. Boyne, John T. Correll, Robert S. Dudney, Rebecca Grant, Peter Grier, Otto Kreisher, Anna Mulrine

Production afmag@afa.org

Managing Editor
Juliette Kelsey Chagnon

Assistant Managing Editor
Frances McKenney

Editorial Associate
June Lee

Senior Designer
Heather Lewis

Designer
Darcy N. Lewis

Photo Editor
Zaur Eylanbekov

Production Manager
Eric Chang Lee

Media Research Editor
Chequita Wood

Advertising bturner@afa.org

Director of Advertising
William Turner
1501 Lee Highway
Arlington, Va. 22209-1198
Tel: 703/247-5820
Telefax: 703/247-5855

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Air Force Association
1501 Lee Highway • Arlington, VA 22209-1198

Telephone: (703) 247-5800

Toll-free: (800) 727-3337

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Fax: (703) 247-5853

Internet: <http://www.afa.org/>

E-Mail Addresses

Field Services..... fldsvecs@afa.org

Government Relations..... grl@afa.org

Industry Relations irl@afa.org

Events events@afa.org

Membership..... membership@afa.org

Insurance/Member Benefits.....
..... services@afavba.org

Policy & Communications (news media).....
..... polcom@afa.org

CyberPatriot..... info@uscyberpatriot.org

Magazine

Advertising..... blurner@afa.org

AFA National Report natrep@afa.org

Editorial Offices..... afmag@afa.org

Letters to Editor Column..... letters@afa.org

Air Force Memorial Foundation.. afmf@afa.org

For individual staff members
first initial, last name, @afa.org
(example: jdoe@afa.org)

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Advocate for aerospace power and STEM education.

Support the Total Air Force family and promote aerospace education.

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Leaving No One Behind

LAST year, two airmen killed in the Vietnam War were identified and buried with full military honors, 43 years after they died. These sorts of announcements come from the Defense Department dozens of times per year, but it would be a mistake to consider any of them routine.

On March 1, 1969, Maj. Wendell Keller and 1st Lt. Virgil Meroney were in an F-4 hit by enemy fire during a mission over Laos. "No parachutes were seen after the aircraft was hit," the DOD announcement read. "Heavy enemy presence in the area prevented recovery efforts."

That could have been the end of the story. Fortunately it was not.

The United States attempts to find and identify its fallen troops so they can be returned to their families and be properly buried. The Honolulu-based Joint POW/MIA Accounting Command (JPAC) leads these search, recovery, and identification efforts. Over the past decade, it has had hundreds of successes.

The Keller and Meroney case was extraordinary, which is typical. For 18 years, from 1994 to 2012, JPAC and Laotian teams investigated the case. They studied more than 40 eyewitness accounts, conducted several crash site excavations, and found and evaluated a fragment of a military ID card, aircraft wreckage, dental remains, and other evidence.

This relentless determination honors the sacrifices of the fallen, and the results speak for themselves. Every year, 80 previously lost troops (give or take a dozen) are identified. Investigating the cases requires the skills of a historian, detective, scientist, and a healthy dose of forensic anthropologist.

Cases typically begin with a lead. It could be a foreign eyewitness coming forward, the result of JPAC or private research, or just a lucky find.

If promising, JPAC will deploy a team to perform an initial site survey to answer a straightforward question: Does this lead justify coming back to perform a full excavation?

If the answer is yes, what often follows is a long wait. JPAC has 18 excavation teams operating worldwide.

There are 166 sites awaiting excavation in Southeast Asia alone.

Host-nation support is critical. The aid JPAC receives from Vietnam and North Korea highlights the differences.

The US is completely shut out of North Korea, where the remains of more than 5,000 American troops still lie. This was not always true: Teams had access from 1996 to 2005, but were then kicked out. Plans to bring the teams back fell apart last year.

Identifying Keller and Meroney was extraordinary—and typical.

Vietnam views the mission as a humanitarian effort and supports the US. JPAC has a permanent detachment in Hanoi, and Vietnamese support has allowed the US to scale back the American presence at some excavations—allowing JPAC to increase the number of sites it investigates in Vietnam.

With access, the next step is to deploy an excavation team. Recovery missions take a month or two, meticulously searching and sifting through the area with likely remains.

The easier cases have been solved, and IDs are getting "harder and harder in Southeast Asia," noted Air Force Maj. Gen. Kelly McKeague, JPAC commander. The soil around Vietnam is acidic, the landscape mountainous, the rains can be fierce, and the majority of the missing were lost in highly destructive aircraft crashes. Matching names and remains in Southeast Asia is a race against time.

When recoveries are successful, the still-unidentified remains are returned to the US in a formal ceremony. Only then can the lab ID process begin. Scientists study the recovered materials, and forensic anthropologists attempt to identify the remains. Dental remains can very effectively be matched with records, and in roughly three-quarters of the cases mitochondrial DNA is used to help with the identification.

No single source is enough, and all streams of evidence must agree.

The lab process can take less than three months or years. At any given time, there are up to 500 cases of possible

human remains awaiting identification at JPAC's Central Identification Lab. Not all cases are solvable, McKeague noted.

Still, technical advances allow for new identifications. DNA testing came along after dental records.

More recently, scientists added the ability to restore and compare Korean War-era chest radiographs to the collarbones of disinterred troops.

Many Korean War remains relocated from Japan were preserved with formaldehyde. This damaged their DNA sequences, said JPAC forensic anthropologist Joseph Hefner. Investigators have a "good idea" who some unknown soldiers might be, but have until now lacked the ability to prove it, he said. If clavicles match the radiographs and the histories match up, these IDs can go relatively quickly.

More than 800 Korean War troops are still buried in "unknown" graves in the National Memorial Cemetery of the Pacific at Punchbowl.

McKeague also noted the potential to begin identifying unknowns among some 400 from USS *Oklahoma*, killed in the attack on Pearl Harbor. They are interred at Punchbowl.

So what to do about the backlog? The 2010 defense authorization act directed JPAC to dramatically expand its capacity. The command is to grow from an ability to perform 85 identifications per year to 200. A new headquarters and laboratory is under construction at JB Pearl Harbor-Hickam, and JPAC will open an annex at Offutt AFB, Neb.

One thing JPAC still does not have on its books is a museum. This is not the best fiscal environment in which to be asking for new things, but the nation would be served by a JPAC museum. Each one of the command's identifications could form the basis of a book or movie, and JPAC puts dozens of names to the fallen every year. These stories deserve to be seen, and awareness would lead to even more valuable tips.

There are still more than 83,000 Americans missing or unidentified from past conflicts. Many are lost in deep water and considered unrecoverable, but tens of thousands of others are still out there, waiting to be brought home, named, and returned to their families. ■



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Frustration Shared

I was again pleased to see John Correll's exceptional talents on display in his article, "The Assault on EBO," in the January *Air Force Magazine* [p. 50]. He's done an excellent job of auditing the EBO journey, deftly assigning blame and credit where due. I would humbly suggest two additional takeaways from his discussion.

First, the haphazard development and eventual corruption of the EBO concept points to a dangerous lack of discipline in doctrine development. I attribute this lack of discipline to the diminished responsibility and authority of the Joint Chiefs of Staff in the post-Goldwater-Nichols environment. No single senior officer should be able to unilaterally and successfully declare a concept null and void. No single officer possesses the breadth of experience, education, and cross-functional expertise to ensure the wisdom of such a declaration.

Second, our focus on the battlefield application of EBO overlooks its most valuable application—at the policy level. EBO's fundamental assumption is that government sponsored or initiated actions toward an adversary or potential adversary, to include diplomatic, information, military, and economic activities, should be envisioned, planned, and conducted with a clear mutual understanding of the desired effect.

From a military perspective, would it not seem logical to demand a clear articulation of the desired political outcome (the effect) prior to the application of military force? And, should the development of that articulation not include serious dialogue with the military experts who create the nation's military forces? Such a dialogue might reveal that desired effects are simply militarily unachievable, or that the

costs are simply not worth the effect. Such a dialogue might also reveal that an alternative, but suitable, effect is militarily achievable. If the dialogue includes the entire spectrum of military expertise and capabilities, it might reveal an alternative military approach. In any case, given that lives are always at stake, it is difficult to argue against the wisdom of the dialogue.

But then there is the problem of the "military experts." Unfortunately, the lack of serious attention to the development of corporate military wisdom by the JCS has left a serious vacuum in which one can forum-shop among various military experts for the advice or views one seeks.

Prior to the 1986 Defense Reorganization Act, the Joint Chiefs were responsible for "corporate" military advice. Corporate means the involvement of the group as a whole. The service Chiefs were charged with a primary responsibility as members of the JCS and were, for the most part, included in the larger national security dialogue. They were not only responsible for their separate services but also for bringing their respective specialized expertise, capabilities, and experiences to bear on national security problems. The process demanded each of the Chiefs' informed engagement in the national security dialogue. In the post G-N environment, their focus has shifted more internally to their "organize, train, and equip" responsibilities. Those parts of their staffs, previously devoted to monitoring and shaping the larger issues of national military strategy and regional security planning, keeping their respective Chiefs informed, have been diminished or shifted to service budgeting and programming activities. The Chiefs, as presently constituted, may not be capable of exerting an informed influence on national secu-

rity planning and strategy. But they could be.

Many of us shared General Mattis' frustration with the current state of concept development. Too many independent entities have been permitted, even encouraged, to engage in "concept development" without real joint oversight. Joint competence is not the province of any single service or joint staff. Joint competence rests solely on the orderly integration of the specialized contributions and diverse perspectives of the contributing services. It is precisely the province of the corporate body of the Joint Chiefs of Staff, and until the process is revised to ensure disciplined oversight by that corporate body, it will remain vulnerable to the host of independent entities presently muddying the waters.

Maj. Gen. Charles D. Link,
USAF (Ret.)
Fairfax Station, Va.

The Fog of War

Kudos to Colonel Meilinger for his superb article on the history of fratricide in the January issue [*"Fratricide," p. 68*]. As always, Colonel Meilinger handled a delicate subject with forthrightness and a careful attention to historical

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detail. Other than unintentionally killing or wounding noncombatants, there is no greater tragedy that can befall any warrior than the accidental destruction of a comrade-in-arms.

As the effective lethality of modern weaponry has increased, the possibility that a misidentified target will result in catastrophic friendly or civilian casualties has also risen. Certainly the rise of conflicts where differentiating the armed enemy actor from the innocent noncombatant has become problematic, increasing the potential for battlefield errors.

While military members come under intense scrutiny when such incidents occur, investigations usually suggest that the "trigger pullers" were, in most cases, diligently attempting to assist comrades in extremis or attempting to defend themselves against what they perceived as a potential deadly threat. Anyone who has ever had to "raise a weapon in anger" has probably had a close call or two.

While improved targeting intelligence, advanced weapons technology, training, and discipline all play a part in an effort to reduce "collateral damage," no serious student of warfare can really expect the elimination of fratricide. We can only hope to limit the impact "the fog" has on other "friendlylies" and noncombatants.

I did want to point out one, likely typesetting, error in the piece. The Black Hawk shootdown over northern Iraq, during Operation Provide Comfort, by a pair of USAF-based F-15s occurred in April 1994 (not 1984) and resulted in multiple investigations (and the accompanying recriminations) for years afterward. The US government finally paid compensation to the families of the victims in 1999.

Col. Thomas D. DiSilverio,
USAF (Ret.)
Colorado Springs, Colo.

LeMay the Lady Charmer

Lawrence Spinetta quotes Gen. Curtis E. LeMay's biographer Warren Kozak describing the general as "dark, brooding and forbidding," as one who "rarely smiled," and whose "words seemed to come out in a snarl" [*White vs. LeMay: The Battle Over Ballistic Missiles*, January, p. 56]. On the contrary, when I met LeMay at a reception for National Geographic sponsors at the official residence of Ambassador Nicholas Veliotis and his wife, Patricia, in Amman, Jordan, in 1979, he was charming, gracious, animated, and modest.

At the time, my husband, Bill, was assigned as the USAF air attaché in Amman. General LeMay listened in-

tently to and complimented my casual summary of the aspects of a Jordanian archaeological model on display for the guests, so I made a point of engaging him in conversation. I told him how my master sergeant father had regaled me with tales of the heroes of World War II and that he was at the top of the list for "rescuing SAC." I recall him commenting that he was "surprised anyone remembered."

We continued in animated conversation, even laughing about some of his encounters with his old World War II colleagues, until his wife, Helen, noticed. Perhaps she thought the old gentleman was boring me or monopolizing the conversation. She walked across the patio to us, leaned into me, and joked, "Don't believe a thing the old fart says."

That is certainly not the response of a wife who thought her husband "could sit through the entire meal and not utter a single syllable" or who was "surly" or "tactless." For me, this mesmerizing encounter with one of my heroes gave me a better understanding of why those under LeMay's command, and soldiers like my father, not only respected but loved the general. God rest their souls.

Sharon E. Hockensmith
McKinney, Tex.

I noted with interest and fond memories the article regarding Gen. Thomas D. White and his running conflict with Gen. Curtis E. LeMay surrounding the future role of our Air Force. It is quite obvious that LeMay had very little patience and/or respect for those not behind the yoke of an airplane—and especially those in the bomber class.

It was my good fortune to be at Albrook AFB, Canal Zone, in 1953, when White decided that he wanted to take on the fish in the Bay of Panama. My good friend and fellow "Canal Zone brat," Lt. James Brooks Coman Jr., who at the time was the base motor pool officer, was asked to plan for White's upcoming visit and his desire to spend some time on his "personal passion" of fishing. Having some connections with locals in the fishing out in the Bay of Panama I was able to assist Coman in the planning for General White and his time spent in the "fishing hole," which in Panama stands for "abundance of fish."

Cannot recall who won the contest, the fish or the general, but do recall being helpful with Coman in his quest to prepare for the soon-to-be Chief of Staff Gen. Thomas D. White and his passion for fishing.

CMSgt. John E. Schmidt Jr.,
USAF (Ret.)
Ialahassee, Fla.

It seems to me that recently some of our authors have done their best to batter the name of Gen. Curtis E. LeMay. Spinetta quotes another recent work, the Neil Sheehan *Fiery Peace in a Cold War* biography of Gen. Bernard A. Schriever. Sheehan had many unkind things to say about LeMay in his work, too. General LeMay had enemies, probably because he was always direct and to the point. He was not a statesman or a politician—he was a great wartime leader. And we were at war all during his leadership—the Cold War. During my 30-year career, most of it in ballistic missiles, I had the honor of spending time with both Schriever and LeMay. During my year at Air War College, General LeMay spent an entire week with us, not only on the stage discussing leadership, but every day at lunch with a small group of us who could ask any question. Yes, he was a "bomber general," and he was not a proponent of the new ballistic missiles during the early days, but he came fully on board as the systems developed. Like any good soldier, as we were taught in his day and mine, we could object and argue up to the point that a decision was made, and if we lost, we saluted, fell in line, and supported our bosses and the decision.

In the final chapter of his autobiography, *Mission With LeMay*, he stated, "There's one thing the public has had a hard time recognizing. That is the fact that I am in complete agreement with the need for an effective ballistic missile force as an important element of our deterrent posture. A secure ICBM system, in concert with other survivable strategic forces, would provide the strongest influence on the USSR to refrain from any attack on population centers of the United States." There is quite a lot about his philosophy on the ICBM force in his book, and many of us who were part of that force in the developing days fully understood his stance.

One of the concerns he voiced in the book was the difficulty in assessing the performance of a ballistic missile. He commented on the fact that one could fly a bomber for thousands of hours to gather reliability and performance data. On the other hand, each test of a ballistic missile was a one-way mission and very expensive. Every test required the destruction of one of our missile assets. In defense of the manned bomber force, he did say, "In my judgment, a strategic force posture which placed sole or principal reliance on ballistic missiles would deny to our future leadership the ability to respond in a flexible manner to a wide range

of minor provocations." Today, we are still having that argument, about the need for a triad instead of a single system or a dyad.

During the development of the Atlas and Titan, LeMay got very involved. Retired Lt. Gen. Harry E. Goldsworthy spelled it out in the September 1982 issue of *Aerospace Historian*. He said, in a review of the delayed construction status of our new missile sites, "This was the situation that led Gen. Curtis E. LeMay, Air Force vice chief of staff, to tour the missile sites in June 1960. He did not like what he found. It was obvious to him that the magnitude of the site activation project had been grossly underestimated. About 80 percent of the program cost came from activation of missile bases. Yet, although five years were allowed for missile development, the base builders got two.

"But of greater concern to General LeMay, with his penchant for direct action was that he found management a hydra-headed monster. ... He wanted one man that he could look in the eye and say, 'You are responsible. Get it done.' He took prompt and decisive action. On 9 July, he directed that there be a single manager at each site responsible for the entire cycle from site selection to turnover of the completed system to the Strategic Air Command (SAC). Then he assigned the responsibility for site activation to [Air Materiel Command], except for the sites at Offutt AFB, Neb., and F. E. Warren AFB, Wyo., and the test facilities at Vandenberg AFB, Calif., where work had progressed too far to justify transition of responsibility."

One final comment about LeMay and White: In a discussion about the relationship between the Air Force Chief of Staff and his vice, he said they "can complement each other. ... Of late we have been fortunate in this regard. General White and I had almost no friction when we teamed together." Spinetta makes a point of saying the two were not friends, but LeMay sure uses a lot of pages in his book talking about "Tommy White." It might be good if some of our current leadership went back and read the words of some of our early Air Force leaders, like LeMay. They might learn how often he and others have been misquoted, taken out of context, or misrepresented.

Col. Charles G. Simpson,
USAF (Ret.)
Breckenridge, Colo.

My 24-year military career was spent almost entirely in Strategic Air Command, bomber (B-47) and ICBM (Minuteman) logistics. My last assign-

ment was in the Directorate of Missile Maintenance, Headquarters SAC.

I greatly admired General LeMay. However, the article clearly indicates that General White had the better "Billy Mitchell vision" for the Air Force. Fortunately, General White did not have bosses with tunnel vision. However, tunnel vision was General LeMay's shortcoming. He did not want to see or could not see the benefits of the ICBM as those in Billy Mitchell's time could not see the advantages of the airplane.

This brings me to the main point of my letter. The greatest gift that Billy Mitchell gave to this nation and the military was the tenacity to not give up. General White did not give up even though General LeMay had great political clout. General White found a way around this obstacle, and the development of the ICBM secured our national defense.

If their roles had been reversed, i.e., LeMay the boss, he would have forced White to retire. Essentially, that is what happened to Billy Mitchell because he strongly disagreed with his superiors.

There are military leaders in all our services who are instilled with the Billy Mitchell vision and tenacity. They make our military the greatest in the world.

Consequently, if there is something that still needs to be settled relative to the unwarranted court-martial of Billy Mitchell, it should be taken care of now.

Maj. Roger Myers,
USAF (Ret.)
Bossier City, La.

Lawrence Spinetta's "White vs. LeMay: The Battle Over Ballistic Missiles" reminded me of Gen. Bernard Schriever's spring 1966 farewell tour of his Air Force Systems Command units, specifically the mess dress dinner at Vandenberg Air Force Base. SAC's 1st Strategic Aerospace Division owned the base, but AFSC had very significant missions there.

The 6595th Aerospace Test Wing's Air Force contractor teams conducted full systems (Category II) testing of multiple new ballistic missiles and their operating facilities and launched satellites, most of them classified, into polar orbit. The newly formed Air Force Western Test Range headquarters supported these, and SAC and NASA launches, at former Navy range facilities from California past Hawaii clear to Eniwetok. AFWTR had supported more than 100 launches in 1965, far outstripping its better-known counterpart at "the Cape."

In his remarks that evening, Schriever reminisced about the early beginnings of Air Force ballistic missile and space programs. His Western

Development Division headquarters was located in a former schoolhouse in Inglewood, Calif., close to many of the aerospace, electronic, and management contractor teams vital to those efforts. So to brief the Chief of Staff and other key headquarters figures meant a long Sunday evening "redeye" flight from LAX.

Arriving at the Pentagon one morning, toting a heavy briefcase as he approached the 4th floor E Ring, he was greeted by some of his former bomber colleagues with the jibe, "Here comes Bennie with his bag of shit."

Lt. Col. Mark R. Foutch,
USAF (Ret.)
Olympia, Wash.

That was the first time I had heard that there was an issue between Generals White and LeMay relating to ballistic missiles.

From 1953 to 1956, I served in the grade of colonel as a member of General White's office and had responsibility for writing Air Force decisions arrived at by the Air Force Council. In that position I sat in on all meetings where decisions were made in the early stages of missile development. Presentations before the council on the missile program were often made by Colonel Schriever and members of the scientific community. General LeMay and members of his staff were sometimes in attendance. The only serious concerns I can recall that LeMay expressed were related to accuracy and yield.

A couple of years later, when I was serving as commander of the Strategic Air Division at Homestead, Fla., General White unexpectedly dropped in one day while en route to another base. During the time I had served in his office we had become good friends and we often went fishing together, which gave me the opportunity to express my opinion on matters that I normally would not have had. I was therefore not too surprised that while touring the base he told me that he would like my opinion on something. He then told me that he was going to be the next Chief of Staff and that he had decided that he would pick Gen. Curtis LeMay to be his vice chief. He mentioned that he was fully aware of his relative lack of experience in the strategic and tactical fields and LeMay's strengths therein. He also expressed his great admiration for LeMay as a man of integrity and reliability and that he counted him as a close friend in their joint efforts to best serve the United States.

I informed General White that, for whatever it was worth, I fully concurred with his evaluation of General LeMay

and was happy to know about his decision. Although General LeMay was relatively well-known early in my career in the Air Corps when he was a first lieutenant, due to his navigation and bombing skills, as a fighter pilot I didn't really get to know him until I started serving under his command in 1956. I found that he was everything he was reputed to be and more. He was of sober and quiet disposition, most of the time, unless someone had fallen down on the job. Then, let them beware. He was not without a sense of humor (he quite often told me jokes), and he rewarded all the people who performed well. He did demand the best of everyone and wings were given a periodic rating of one through Tail End Charlie. He often stated his policy that no wing in SAC should be last. He did not tolerate mediocrity very well.

From the fall of 1959 until spring of 1963, I served as director of plans at Strategic Air Command. At that time, Gen. Tommy Power was commander of SAC and he fully supported the ballistic missile program. As his chief planner I had primary staff responsibility for missile siting and missile types. I cannot recall an instance when General LeMay as vice chief didn't support us in our recommendations.

Both General White and General LeMay remained friends with each other and both remained friends of mine until their deaths.

Gen. Seth J. McKee,
USAF (Ret.)
Phoenix

Please, Avoid Page 32 of This Issue

As a former RC-135 instructor navigator, I am disappointed in the Air Force Association echoing Soviet propaganda by using the words "spy" and "spyplane" in "The Death of Korean Air Lines Flight 007" [January, p. 62].

After using the word "spyplane" in the context of Soviet statements, the article later repeated it twice and further stated the mission of the RC-135 was to "spy." Those associated with reconnaissance know there is a huge difference between reconnaissance and spying. Reconnaissance is legal and above board while spying is not. The late President Reagan correctly referred to the RC-135S as "one of our reconnaissance planes ... on a routine mission" in his Sept. 5, 1983, speech in the aftermath of the atrocity, and he only used the word "spy" in reference to what the Soviet government uttered. Everyone involved with reconnaissance is fully entitled to resent the article's implication that reconnaissance crews engage in spying.

The importance of the distinction between reconnaissance and spying might become clearer this September if additional material is declassified on the 30th anniversary of that horrendous act. If so, I am highly confident that any new information will reaffirm that the Korean airliner was an innocent party, the actions of all United States military aircrew were legal and proper, and that the version of events laid out by the United States government was 100 percent correct, while the Soviet "explanation" was 100 percent wrong. The use of "spy on" and "spyplane" instead of "reconnoiter" and "reconnaissance aircraft" is a glaring and sloppy error in the article.

Lt. Col. Allan G. Johnson,
USAF (Ret.)
Fairfield, Calif.

■ *Spying is collecting information about an adversary or potential enemy without their permission. Many legal and accepted intelligence, surveillance, and reconnaissance operations would commonly be considered spying, and there is nothing inherently improper about these activities. The article did not imply that the RC-135 engaged in any illegal activity or that KAL Flight 007 did anything worse than stray off course.*—THE EDITORS

Thanks to Peter Grier for his enlightening article "The Death of Korean Air Lines Flight 007." The story of the confusion of the inept Soviet air defense system coupled with the Reagan White House actions as a result of the shootdown is quite revealing. I was a USAF colonel assigned at that time as director of political military affairs on the National Security Council staff, as a member of the interagency task force working on the issue. One interesting outcome of the KAL 007 incident is the decision made by President Reagan, as a result of our task force's recommendation, to release GPS to civilian use.

At the time, GPS was under development. However, it was planned for only military use. Due, in part, to the Soviet's decision to shoot down an unarmed 747, with all of its navigation lights blazing (as reported by the Soviet pilot Maj. Gennadiy Osipovich), then-President Reagan made many important decisions. Not reported, however, in Peter Grier's excellent article was the President's release of GPS to civilian use. The rest is history. That decision helped start the process, whereby GPS has become almost indispensable to our daily lives.

The decision was announced in a White House press statement on Sept.

16, 1983. I helped jointly write the decision memo and the press release, which says in part:

"World opinion is united in its determination that this awful tragedy must not be repeated. As a contribution to the achievement of this objective, the President has determined that the United States is prepared to make available to civilian aircraft the facilities of its Global Positioning System when it becomes operational in 1988. This system will provide civilian airliners three-dimensional positional information."

Col. Bob Lilac,
USAF (Ret.)
Palm Desert, Calif.

An ironic twist to the Soviet version of why the KAL airliner was shot down on Sept. 1, 1983, was the fact that the civilian airliner, which the Soviets claimed to have mistaken for a US "spyplane," was actually pictured in the Soviet Military Encyclopedia (SVE). The volume, published in early 1983, was presumably distributed to all military bases throughout the USSR. The Soviet pilot, Gennadiy Osipovich, would presumably have read the SVE article, titled "Samolet" (Airplane).

Much obfuscation accompanied the US press coverage of the KAL Flight 007 tragedy. For instance, one well-known American writer claimed erroneously that Osipovich could not have clearly ID'd the big airliner since, he claimed, it was a "dark night" over the Sea of Okhotsk. Yet, on that night, Sept. 1, a bright, gibbous moon illuminated the light, reflective skin of the Boeing 747.

2nd Lt. Albert L. Weeks,
USAF (Ret.)
Sarasota, Fla.

Only One Goes?

Although retired for a while, I've been following the BMT abuse scandal. I noted the January *Air Force Magazine* update regarding the "BMT Abuse Findings" [*Air Force World*, p. 16] and Major General Woodward's conclusions about leadership being the most important area: "insufficient oversight, poor instructor selection, lack of emphasis on responsibility, barriers to reporting, and inadequate policy and guidance." These seemingly would be leadership responsibilities at the highest levels in AETC.

However, as I understand, only one leader was relieved of command—the training group commander. The wing commander was reassigned, not relieved, and it appears no other senior leaders will be held responsible for

these "leadership" failures, including the MAJCOM and NAF CC, who were both in command during the time. In fact, the AETC command chief, who bears some measure of responsibility for the welfare and support of the enlisted airmen, is now the Chief Master Sergeant of the Air Force.

And we wonder why Congress balks at and delays confirming our senior leader nominations.

John Campbell
Crossville, Tenn.

China Almanac?

I just received the January issue and zeroed in on "Meet the New PLAAF" [p. 34]. I have been most impressed with the Air Force Association's coverage of communist China since the article in the September 1997 issue ["The Chinese Buildup Rolls On"]. I remember that *Air Force Magazine* published annual reports on Soviet airpower in the 1980s and 1990s. The issues were fascinating because there was so much technical information about order of battle, aircraft specifications, rank structure, and detailed maps. Is there any way that an annual report on Red China could be compiled and published?

MSgt. Michael R. Betzer,
USAF (Ret.)
Lancaster, Calif.

We Don't Have to Be Vulgar, Now

The letter "Classics, Hurrah! Classics, Boo!" in the January issue [p. 6] just goes to prove that someone can have an opinion but that doesn't mean that they know what they are talking about.

The letter concerns the "Airpower Classics: F-5" entry in the December issue of *Air Force Magazine*. The writer claims that the F-5 "is basically a T-38 pooped up for combat." Sorry, but this is incorrect. Northrop had been developing a relatively inexpensive lightweight fighter primarily designed for export (the N-156 program) for a few years. At some point the Air Force realized that this aircraft could be a possible supersonic UPT advanced trainer aircraft that could replace the aging and obsolete T-33. From this the T-38 was born. Thus the T-38 was a "pooped down" F-5 and as anyone who may have flown it knows, it is a great trainer aircraft.

As far as the point made in the letter about the intakes being too low to the ground thus causing an FOD (foreign object damage) problem, this too is in error. The intakes of the F-5 and T-38 are no lower to the ground than many other jet aircraft. For example, have you looked at an F-16 or F/A-18 lately? The writer doesn't say where in Southeast

Asia he witnessed the intake screens being utilized for ground operations, but I would bet that it was not at a "primary" location. As anyone who has been a flight-line worker knows, foreign objects lying on the ramp, taxiways, or runways, pose a great risk of engine damage to any jet aircraft. Keeping a clean operating surface for any jet aircraft is extremely important.

I have 742 hours in the F-5B/E/F and can say that it is an outstanding aircraft for what it was designed for. With my T-38 flying in UPT and my F-5 flying including all of our cross-country trips to other bases, the only time I have ever observed intake screens being utilized is during high power ground runs done on the trim pad.

Any jet aircraft is susceptible to ingesting trash lying on the ground, which can result in serious engine damage. Whenever I flew any aircraft, I made it a habit to inspect the ramp surface immediately under and in front of the engine(s) during my preflight walkaround.

Charlie Friend
Alamogordo, N.M.

Correction: "Linebacker II" in the December 2012 issue (p. 52) should have stated that then-Col. James R. McCarthy was the airborne mission commander for the Dec. 26, 1972, mission.

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The reality of combat; A change in thinking about specialties; Global Zero and the Pentagon Chief nominee

AREN'T THEY ALREADY?

The few remaining military jobs that have been off-limits to women—primarily ground combat jobs and special operations assignments—will be open to anyone who can qualify for them, Defense Secretary Leon E. Panetta announced in January. The move elicited mostly shrugs from within the services and Congress, since women have been in de facto combat assignments for many years.

Men and women in US uniforms, Panetta said in a Pentagon press conference, are “fighting and dying together. And the time has come for our policies to recognize that reality.”

Panetta said the Pentagon has been scrutinizing the last few job specialties that have been closed to females since a 2012 decision “opened up more than 14,000 new positions to women, including positions that were collocated with ground combat units.” The experience from that move “has been very positive,” he said.

Panetta said he and Army Gen. Martin E. Dempsey, Joint Chiefs Chairman, “believe that we must open up service opportunities for women as fully as possible” and ordered the end of the “direct ground combat exclusion rule for women.”

He continued, “Our purpose is to ensure that the mission is carried out by the best-qualified and the most capable” personnel. If service members “can meet the qualifications for a job—and, let me be clear, I’m not talking about reducing the qualifications for the job”—then they should have the “right to serve, regardless of creed or color or gender or sexual orientation.”

Panetta noted that since the 2001 terrorist attacks, 152 women have died in combat in Iraq and Afghanistan. They have “faced the reality of combat, proven their willingness to fight, and yes, to die to defend their fellow Americans.”

The order sweeps away the 1994 direct combat exclusion rule.

The process of figuring out how to comprehensively include women in combat assignments is well along, Panetta said, and will be accomplished “in a responsible, measured, and a coherent way.” It will not cause any harm to morale or combat capabilities, he said.

Standards will be examined to determine exactly what is required of a troop in a combat assignment, and only the absolute necessary requirements will determine who is qualified to fill them, Panetta noted. There will be no sacrifice of capability, he said.

“Not everyone is going to be able to be a combat soldier. But everyone is entitled to a chance.”

He has directed Dempsey to present the final plan on how to accommodate the end of restrictions on women by next month.

Dempsey said the opening-up process will be done “in a way that maintains readiness, morale, and unit cohesion” and that “clear standards of performance” will be established for all the positions now becoming unrestricted.

He discounted the notion that Panetta’s directive signals some new milestone allowing women to serve in combat.

“We’re way beyond that,” he said. “Women are serving in combat and have been.” The Joint Chiefs of Staff unanimously endorsed the plan, Dempsey said.

The change in thinking, Dempsey said, will be in turning the old standard on its head. “The burden used to be that we would say, ‘Why should a woman serve in a particular



All doors will open for military women.

specialty?’ Now, it’s, ‘Why shouldn’t a woman serve in a particular specialty?’” All that’s left to do is “make sure we got the standards right.”

Panetta dismissed questions about how privacy would be arranged, saying that, in the desert wars in Iraq in 1991, 2003, and beyond, “we figured out privacy.” Women have been integrated onto ships and submarines and have served as fighter pilots for 20 years already. “I think we can meet those challenges,” he said.

In the Air Force, just seven specialties were off-limits to women until Panetta’s order, and only four were closed to enlisted women. All seven are associated with ground combat roles—so-called “battlefield airmen” jobs—such as tactical air control party members, pararescue jumpers, and combat rescue.

The change will open up 3,235 specific billets to USAF women. They represent just one percent of all Air Force jobs.

Gen. Mark A. Welsh III, Chief of Staff, said USAF can now “pursue integrating women into the seven remaining Air Force career fields still closed. ... We’re focused on ensur-

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ing America's Air Force remains capable and ready with the best-qualified people serving where we need them."

Part of Panetta's plan calls for making sure more than just one woman is injected into a particular specialty where they have not been included before. Dempsey wrote that the implementation plan will ensure "that a sufficient cadre of midgrade/senior women enlisted and officers are assigned to commands at the point of introduction to ensure success in the long run." This may require "an adjustment to our recruiting efforts, assignment processes, and personnel policies. Assimilation of women into heretofore 'closed units' will be informed by continual in-stride assessments and pilot efforts."

Sen. John McCain (R-Ariz.), a leading member of the Senate Committee on Armed Services, issued a statement supporting Panetta's move, saying, "American women are already serving in harm's way today all over the world and in every branch of our armed forces. Many have made the ultimate sacrifice." McCain urged that in implementing the change, "it is critical that we maintain the same high standards that have made the American military the most feared and admired fighting force in the world—particularly the rigorous physical standards for our elite special forces units."

"NOTIONAL" UNILATERAL DISARMAMENT

The severe nuclear force structure reductions featured in a report of the self-appointed blue-ribbon panel calling itself "Global Zero" were simply an illustration of a path to a US military thoroughly divested of such arms and didn't constitute a proposal as such. So insisted Chuck Hagel, former Nebraska Senator—and Global Zero panelist—during his grueling, eight-hour confirmation hearing to be Secretary of Defense.

The May 2012 report—signed by Hagel and fellow panelists Ambassadors Richard R. Burt and Thomas R. Pickering, retired Army Gen. John J. Sheehan, and retired Marine Corps Gen. James E. Cartwright, the former vice chairman of the Joint Chiefs of Staff and head of US Strategic Command—seemingly called for taking all nuclear weapons off alert and limiting the inventory to 300 warheads or less. It also seemed to suggest that the US should proceed with such disarmament unilaterally, if necessary.

Hagel's signing of the Global Zero report put him under intense and aggressive questioning during the marathon Jan. 31 confirmation hearing. Those Senators who said they were undecided about whether to support Hagel's nomination—or voiced outright opposition—cited it as among their chief concerns, along with Hagel's supposed lack of full-throated support for Israel.

Under questioning from Sen. James Inhofe (R-Okla.), Hagel maintained that his position "has never been unilateral disarmament, ever." He quoted President Ronald Reagan as saying "we must eliminate nuclear warheads from the face of the Earth" and said the goal is a laudable and necessary effort.

"Global Zero has been very clear on this," Hagel said. "Their effort is in line with every major leader in the world, including President Obama, to continue to try to make an effort to reduce our nuclear warheads." That reduction, however, must be bilateral and "verifiable. ... It has to be negotiated, as all our treaties have been," Hagel said.

The Global Zero report suggested taking down all US ICBMs, tactical nuclear weapons, and nuclear cruise missiles and retiring the B-2 bomber long before the end of its service life, converting the B-52 to a conventional-only platform, and

downsizing the Trident submarine fleet to just 10 boats with 45 warheads each. The report drew few fans in military circles when it was released. Then-Air Force Chief of Staff Gen. Norton A. Schwartz said he didn't agree with the "assessment, nor the study."

Hagel told the Senate Armed Services Committee in his prepared answers for the hearing he believes "providing the necessary resources for nuclear modernization of the triad should be a national priority," and he told Inhofe in testimony, "I agree with that. And that's ... what the policy of this Administration is."

He told Sen. Jeff Sessions (R-Ala.) the Global Zero report "didn't propose or call for anything." The reductions outlined were "illustrative," he said.

Sessions, however, insisted that the report expressed the opinion that although bilateral reductions are most desirable, "a less-good approach would be to adopt this agenda unilaterally. ... It does call for these reductions."

Under questioning from Sen. Kelly Ayotte (R-N.H.), Hagel said the reductions described in Global Zero's white paper were "an illustration ... because that's the term it used at the front end of the report." He amplified that it was "not a recommendation" and noted the text meant the approach was one the US "could" take: "illustrative scenarios, possibilities."

Ayotte said she was troubled that Hagel would put his name on a document offering "what you call an 'illustration'" but which to her seemed "a significant reduction in our nuclear deterrence," even though Hagel said he believes the triad should be maintained and improved.

"I view that as troubling and inconsistent," she said.

In response, Hagel said he "won't be signing off on reports in the same way as a private citizen, obviously. I will have a different kind of responsibility if I am confirmed by the Senate. But I don't think that there's anything that also changes my position in that report."

He added that he doesn't think there's an inconsistency in his philosophy.

Sessions voiced his concern that the "vision stated in your Global Zero report, I believe, is likely to create instability, rather



Hagel is beleaguered by Global Zero.

AP photo by Susan Walsh

than confidence and stability—create uncertainty in the world among our allies and our potential adversaries."

Hagel told Sessions, "My record has always been very clear. ... A strong, agile, safe, secure, effective nuclear arsenal for the United States is not debatable. I voted that way. I believe that." He said he would "never do anything or in any way take any action that would minimize or harm or downgrade" a strong nuclear deterrent.

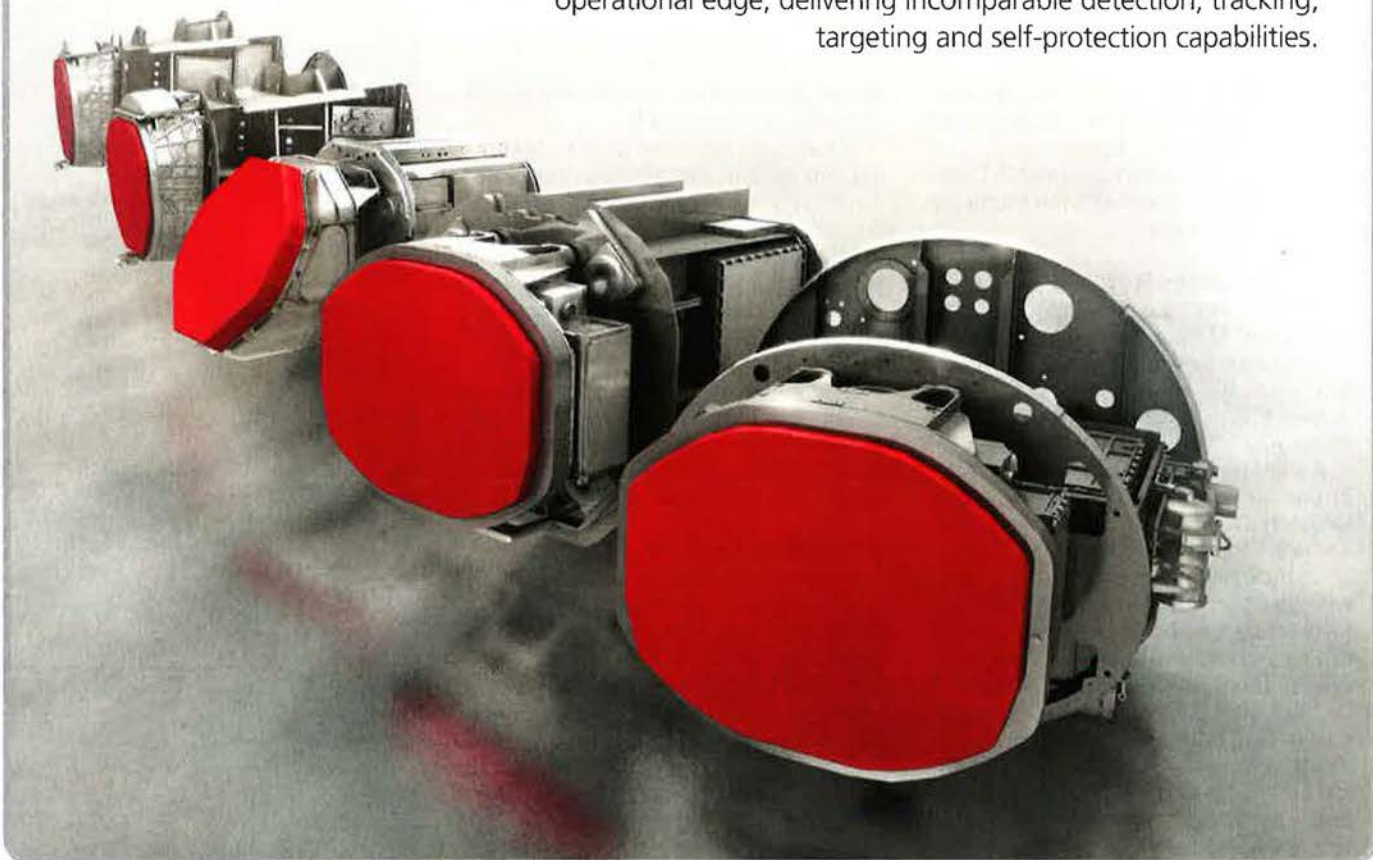
"That's the commitment I make to you. I made it to the President. My record's clear on this," Hagel said. ■

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Pilot Killed in Training Mishap

Capt. Lucas Gruenther, a fighter pilot with the 31st Fighter Wing at Aviano AB, Italy, died following the disappearance of his F-16 over the Adriatic Sea during a nighttime training sortie Jan. 28.

The fighter was flying about 12 miles east of Cervia, Italy, when it disappeared. Weather initially hampered a joint US and Italian search effort, but the air and sea force managed to locate Gruenther's parachute and helmet along with aircraft debris, indicating that he had ejected.

Aviano F-16s using targeting pods joined in a redoubled effort to locate Gruenther, but his body was ultimately recovered Jan. 31.

Gruenther flew numerous combat sorties during a six-month deployment to Afghanistan in 2011.

Air Force Secretary Michael B. Donley approved Gruenther's posthumous promotion to major.

Cody Succeeds Roy

CMSgt. James A. Cody became the 17th Chief Master Sergeant of the Air Force during a ceremony at JB Andrews, Md., Jan. 24. He succeeded CMSAF James A. Roy, who had held the position since July 2009 and retired in February.

As the top noncommissioned officer in the Air Force, Cody will advise the Chief of Staff on enlisted issues and serve as liaison to the enlisted corps.

Cody "delivers the Air Force message with passion and he inspires airmen to take ownership of their work, their professional development, and the environment around them," said Chief of Staff Gen. Mark A. Welsh III at the ceremony. Addressing airmen at the event, Welsh said people describe Cody "as smart, talented, articulate, poised, and it won't take you long to figure out why they feel that way."

Cody and his wife, retired CMSgt. Athena Cody, were both career air traffic controllers. To Cody, Welsh said, "This is your Air Force and all of us are now your airmen. Lead us well."

Speaking to the force for the first time in his new role, Cody said he "will focus on strengthening relationships, taking care of one another, and holding each other more accountable for measuring

up to the high standard demanded of every airman."

Civilian Hiring Freeze

Air Force senior leaders imposed a forcewide civilian hiring freeze on Jan. 16, directing commanders to release temporary employees and not renew term employees, service officials announced.

The immediate steps were set in motion to reduce the service's rate of expenditure and protect core readiness functions in the face of a possible budget sequestration and other funding shortfalls.

Air Force leaders outlined these moves—intended to be reversible and recoverable—in a memo to the heads of the major commands.

"These are uncharted waters concerning the federal budget and the effect it will have on the Air Force," Lt. Gen. Darrell D. Jones, USAF's manpower and personnel chief, stated in the memo. "It is imperative we work closely together to balance mission needs and minimize impacts to our dedicated civilian employees and their families."

Civilian pay makes up a large share of the Air Force's operating budget. Moreover, service officials project a \$1.8 billion shortfall for overseas contingency operations in this fiscal year.

KC-46 Base Options

The Air Force has selected its candidate hosts for a KC-46A tanker schoolhouse and the new tanker's first two operating bases.

Formal training unit candidate bases are Altus AFB, Okla., and McConnell AFB, Kan., officials said Jan. 9.

Options for the first main operating base (MOB 1) are Altus, Fairchild AFB, Wash., Grand Forks AFB, N.D., and McConnell.

Meanwhile, Forbes Field, Kan., JB McGuire-Dix-Lakchurst, N.J., Pcase International Tradeport ANG, N.H., Pittsburgh Arpt./ANGS, Pa., and Rick- enbacker ANGB, Ohio, are all options for the Air National Guard-led KC-46A main operating base (MOB 2).

The next step in selection is a detailed survey of each site to determine comparative beddown costs.

Photo by Jim Haseltine



Based on the results, the Air Force will announce its preferred and reasonable alternative locations this spring and begin the requisite environmental impact studies.

The FTU and MOB 1 are slated to welcome KC-46s in Fiscal 2016, while MOB 2 is expected to receive its first tankers in Fiscal 2018, the release stated.

Last Engine for Raptor Fleet

Pratt & Whitney delivered the 507th

and final F119 production engine for the F-22 fleet to the Air Force in a ceremony at the company's production facility in Middletown, Conn., Jan. 17.

"This is a bittersweet occasion for those of us who have played a part in 12 years of successful production deliveries," said Bennett M. Crowell, the company's president of military engines, at the ceremony. "The F119 production engine program might be ending, but we look forward to a 30- to 40-year sustainment period in

partnership with the Air Force to keep the fleet flying."

Each F-22 is powered by two F119s, the first of which Pratt & Whitney delivered to the Air Force in December 2000.

Pratt & Whitney has partnered with the Oklahoma City Air Logistics Complex at Tinker AFB, Okla., to manage scheduled F119 overhauls.

The F119 is the forefather of the F-35 strike fighter's F135 propulsion system. Due to a lull between the end of F119



A US Navy F-18G Growler and a USAF F-15C fly in formation during Cope North 2013. Cope North is a joint service, multilateral exercise that provides airmen practice in airfighting integration tactics. The Royal Australian Air Force and the Japanese Air Self-Defense Force also participate.

02.05.2013

production and the transition to full-up F135 manufacture, the company has begun shedding some 350 employees, the local press reported.

F-22s Hold at Holloman

The squadron of combat-ready F-22s slated for transfer from Holloman AFB, N.M., to Tyndall AFB, Fla., early this year won't be moving until spring 2014, Air Force officials recently announced.

"The timing of the move allows the approved actions to be synchronized in a way that minimizes disruption to airmen and their families, while optimizing combat capabilities and continuity in training for the units affected by the decision," Tyndall officials explained in a release Jan. 9.

The northwest Florida base is already home to the F-22 schoolhouse. Under the Air Force's 2010 Raptor fleet consolidation plan, Tyndall stands to gain 21 Raptors and some 620 Active Duty and 230 Air Force Reserve manpower authorizations.

Seven T-38s that fly as mock adversary aircraft against F-22s in training will transfer with the F-22s from Holloman to Tyndall, according to the release.

The first Holloman F-22s were originally scheduled to arrive to Tyndall in January.

Raptors Return From Middle East

A contingent of six F-22s and more than 200 airmen arrived back at Holloman AFB, N.M., in January, following a nine-month



Heavy Lifting: SrA. Chris Cali moves a pallet of cargo into the storage area at Bagram Airfield, Afghanistan, under the watchful eye of air transport specialist SrA. Lynn Libby. Over the past six months, 104,000 tons of cargo have been brought into or moved out of Bagram.

USAF photo by SSgt. David Dobrydney

deployment to an undisclosed location in the Middle East, 49th Wing officials announced.

The deployment—the first of its kind—“was a tangible demonstration of our strong commitment to regional security and stability,” wing spokesman Arlan Ponder said Jan. 31. The F-22s “supported regional exercises, mil-to-mil activities, regional

security cooperation, and improved joint tactical air operations” during their time in the region, he said.

The Raptor deployment was not well-publicized but closely followed belligerent talk from Iran, which threatened US bases, ships, and other assets in the Persian Gulf area last year.

Members of Holloman's 7th Fighter Squadron and 49th Maintenance Group took part in the overseas rotation, according to the base's Jan. 29 news release.

Big Bang Ready

Boeing's redesigned Massive Ordnance Penetrator is ready for “successful prosecution,” according to the Pentagon's top tester's most recent annual report to Congress.

The 30,000-pound bunker-busting bomb underwent two sled tests at Holloman AFB, N.M., last summer “to confirm a successful redesign of a critical part of the weapon system,” stated the Director of Operational Test and Evaluation's 2012 report, released Jan. 11.

A B-2 stealth bomber successfully conducted five weapon drops—three with live warheads and two with inert warheads—at White Sands Missile Range, N.M., between last June and October, further proving MOP's performance.

“The sled test results and the additional weapon drops indicate that the weapon redesign is adequate for successful prosecution of all of the elements of the currently defined target set,” the report stated.

Streamlining Nuclear Stockpiles

The Air Force and Navy are attempting to streamline care and sustainment of

Not Such a Slam-Dunk

The Air Force wasn't justified in blaming Capt. Jeffrey Haney for the Nov. 16, 2010, crash of an F-22 in Alaska that killed Haney and destroyed the single-seat stealth fighter, according to the Pentagon's inspector general.

The Department of Defense IG found that the Pacific Air Forces Accident Investigation Board didn't prove its conclusion: that pilot error and disorientation caused the mishap. The AIB's conclusions were “not supported by the facts,” and the panel's findings were “not consistent with the clear and convincing standard of proof” set forth in USAF's own regulations, the IG said.

The accident board originally determined that Haney's failure to recognize vertigo symptoms, on top of his mental fixation and visual inattention, were the primary causes of the crash, which occurred at night. It also allowed that Haney was probably affected by a lack of oxygen—a problem that grounded USAF's entire F-22 fleet for months—but that he was still responsible for the crash.

Services have an opportunity to comment on IG investigations, and the Air Force rejected the DODIG's assertion that the AIB's conclusions were unjustified, but admitted to flaws in the report. However, the DODIG did “not concur” with USAF's response, restating that the Air Force panel's conclusions were not “sufficiently supported by clear and convincing evidence.”

Air Force officials told the IG that they plan to address some—though not all—of the DODIG's concerns, and drew additional fire for failing to explain what measures they would take. The IG directed the Air Force to explain in detail, by the end of February, what remedial action will be taken.

In January 2012, when the IG announced it would look into the Haney accident board's findings, then-Air Force Chief of Staff Gen. Norton A. Schwartz said the probe was simply a “routine” double check on USAF's investigation procedures.

the US nuclear warhead stockpile under a long-term strategy dubbed "three plus two." The stockpile currently holds 12 variants of warheads, including five versions of the B61 nuclear bomb alone, Air Staff associate strategic deterrence director Billy W. Mullins revealed in January.

The two services plan to coordinate to bring the total down to five variants: three shared ballistic missile systems and two air-deployed nuclear weapons, said Mullins.

"These variants, long term, will take us well into the 21st century," said Mullins. The joint Defense Department-Energy Department Nuclear Weapons Council signed off on the strategy in December, said Mullins.

The strategy has been briefed to Deputy Defense Secretary Ashton B. Carter and is now going through the budgeting process with all stakeholders involved, he said.

Tanker Engine Upgrade

Technicians installed the first of 1,440 planned upgraded engines for the KC-135 tanker fleet at the beginning of this year, Air Mobility Command officials said.

Workers finished installing the first CFM Propulsion Upgrade Program engine—C-PUP for short—at MacDill AFB, Fla., Jan. 15, AMC reported.

The C-PUP motors burn less fuel and run for longer periods without requiring repairs, command officials said.

Under the C-PUP, the Air Force is replacing 1970s-vintage parts on the tankers' F108 turbofan engines with modern technology, such as in the high-pressure compressor and turbine sections.

General Electric is providing the first modified power plants, and the Air Force expects to deliver its first organically produced C-PUP engine from the Oklahoma City Air Logistics Complex at Tinker AFB, Okla., later this year.

USAF plans to produce 120 of the upgraded engines annually, and the entire upgrade initiative is expected to take 12 years to complete.

Patriots to Turkey

C-5 and C-17 airlifters from units assigned to USAF's three components at

Structure Changes for the Reserve

Air Force Reserve Command will add seven new units and make additional force structure changes, including inactivating several units, based on the language in the Fiscal 2013 defense authorization act.

"These force structure changes will take place over the next three years and are necessary to help meet Budget Control Act of 2011 resource levels," said Maj. Gen. Craig N. Gourley, AFRC's vice commander, in a news release Jan. 25.

AFRC will stand up five squadrons as classic associate units: the 14th Intelligence Squadron at Wright-Patterson AFB, Ohio; 28th IS at Hurlburt Field, Fla.; 37th IS at Fort Meade, Md.; 41st IS at Offutt AFB, Neb.; and 960th Network Warfare Squadron at JBSA-Lackland, Tex. It will also activate the 655th Intelligence, Surveillance, and Reconnaissance Group at Wright-Patterson and the 960th Cyber Operations Group at Lackland, according to officials.

Among the other changes, AFRC will inactivate: the 917th Fighter Group at Barksdale AFB, La.; 13th Reconnaissance Squadron at Beale AFB, Calif.; and Band of the US Air Force Reserve at Robins AFB, Ga.

The overall defense legislation became law in early January.

bases in the US and Europe deployed Army Patriot missile defense batteries and hundreds of personnel to Turkey at the beginning of January.

The Patriots were sent to help secure the NATO ally against missiles fired from Syria, which is undergoing a civil war. Syrian government forces shot down a Turkish RF-4 Phantom last year.

"The Air Force has the unique means to provide rapid global mobility in support of an important ally," said Brig. Gen. Lawrence M. Martin Jr., Tanker Airlift Control Center vice commander at Scott AFB, Ill., Jan. 7.

NATO foreign ministers agreed to Turkey's request for air defense in December, and German and Dutch batteries went active alongside US systems under NATO command in January.

Airmen at Altus AFB, Okla., loaded C-5s with more than two million pounds of Patriot equipment, and several C-17s established a follow-on air bridge to provision the deployment, said Scott officials.

China Flatters the C-17

China's first indigenously designed heavy airlifter, called the Y-20, lifted off on its maiden flight from the country's Xi'an flight-test center in central China on Jan. 26, according to press reports.

The aircraft bears a strong resemblance to Boeing's C-17—which deployed to China on a 2008 earthquake relief mission—and the C-17's experimental forerunner, the YC-15.

"We are developing large transport aircraft on our own to improve the capability of air transport," Chinese defense spokesman Yang Yujun said in announcing the existence of the aircraft in December. He was quoted by the government-run news agency, Xinhua.

"The research and development of the large transport aircraft is going forward as planned," he said.

The Xian Aircraft Industry-developed Y-20 addresses China's need for long-range, heavy-lift aerial transport to extend its global reach, now filled by aging Russian-built Il-76s.

For testing, the prototype is powered by Russian-built turbofans, but production versions will be powered by Chinese-developed engines, the Associated Press reported.

Four Thousand Scrambles

On Jan. 9, F-16s from the District of Columbia's Air National Guard scrambled for the 4,000th time since September 2001 against potential airborne threats to the nation's capital, Air Forces Northern officials said.

"It is a testament to the dedication, professionalism, and daily sacrifice of our folks who have done the alert mission day in and day out for over 11 years," commented Lt. Col. Christopher Hardgrave, 113th Aerospace Control Alert Detachment commander at JB Andrews, Md.

The detachment is the busiest NORAD alert unit, responding to more events—whether rushing pilots to cockpit standby or launching to intercept a threat—than all of the other ACA units across the nation, according to AFNORTH.

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On Guard for Warthogs

Retaining Air National Guard flying missions in each state was the key deciding factor shaping Total Force cuts to the A-10 fleet for Fiscal 2013, said Col. Michael Norton, ANG programs chief at the Pentagon.

In this fiscal year's defense policy act, Congress allowed the retirement of 61 A-10s—41 fewer than the service requested in its original budget proposal. These cuts are about equally divided between the Active Duty component (20), Air Guard (20), and Air Force Reserve Command (21), according to a summary of the Air Force's Fiscal 2013 force structure changes shown at a Jan. 10 media roundtable with Norton.

When Air Force officials revised the service's original Fiscal 2013 force structure proposal after lawmakers raised concerns, they opted to restore A-10s to the Air Guard's 107th Fighter Squadron at Selfridge ANGB, Mich., and the 163rd FS in Fort Wayne, Ind. The Air Guard's A-10 cuts will all come from the 188th Fighter Wing at Fort Smith, Ark., a unit transitioning to remotely piloted aircraft. "If you look at a state like Indiana, A-10 is their only flying mission," said Norton. Conversely, "Arkansas has other flying missions," he said, citing C-130s at Little Rock.

Hardgrave said he is "extremely proud of the accomplishments of the men and women" of the detachment for hitting this alert milestone.

Typhoons at Red Flag

Royal Air Force FRG Typhoon fighters deployed to the United States for two months of exercises and training starting in January.

The British fighters were slated to make their first Red Flag appearance at the aerial combat training exercise at Nellis AFB, Nev.

The Typhoons spent the first several weeks developing tactics with the Air Force's F-22s at JB Langley-Eustis, Va., during Exercise Western Zephyr.

"It is a big opportunity to test the capability of the aircraft and the pilots against the very best and develop tactics," said Wing Cmdr. Richard Wells, leader of 11 Squadron. He was quoted in the *Bermuda Sun* after the Typhoons stopped over on the island en route to Langley Jan. 22.

The fighter unit, based at RAF Coningsby, England, was scheduled to push on to Las Vegas for Red Flag 13-3 in February. "This has been over six months in the planning and is the first time the RAF has deployed Typhoon to such a prestigious exercise," said Squadron Leader Andy Chisholm, 11 Squadron's executive officer.

B-2s Back to the Pacific

Two B-2A stealth bombers from the 509th Bomb Wing at Whiteman AFB, Mo., began operating from Andersen AFB, Guam, in support of US Pacific Command's in-theater training objectives in January.

"This deployment will provide the opportunity for our airmen to become familiar with operating in the Pacific and exercise the B-2's ability to employ stra-

tegic precision attack capabilities across the globe," stated Pacific Air Forces in a news release Jan. 18.

The deployment is the first time in several years that the B-2s have deployed to Andersen. B-2s had been a regular part of the Air Force's bomber rotations to Guam where the United States has maintained a continual long-range strike presence since 2004. However, the Air Force pulled the bomber out of rotation after a B-2 crashed on the island in 2008 and another was severely damaged by an engine fire there in 2010.

An expeditionary contingent of airmen and B-52s from Barksdale AFB, La., that rotated to Guam last October overlapped with the B-2's training deployment, which began Jan. 21.

Hijack Scare Brings Eagle Escort

F-15s of the Oregon Air National Guard's 142nd Fighter Wing in Portland intercepted and escorted an allegedly hijacked airliner to a safe landing in Seattle.

NORAD scrambled two F-15 fighters from Portland Jan. 17 in response to an anonymous tip to the FBI that someone had hijacked Alaska Airlines Flight 819 heading to Seattle from Kona, Hawaii, the Associated Press reported.

The airplane touched down at Seattle-Tacoma Airport at approximately 7:00 p.m. Seattle time. Law enforcement officials questioned a passenger on the airplane, but the tip turned out to be "a hoax phone call," said FBI Honolulu branch office spokesman Tom Simon, according to the press report.

"The FBI gets lots of hoax phone calls but something that rises to this level is not something that we're going to take lightly," he added. The passenger reportedly cooperated with law enforcement and was not arrested.

Ghostrider Conversion

The first MC-130J airframe destined for conversion to AC-130J gunship specs arrived for modifications at Eglin AFB, Fla., in January, Air Force Special Operations Command revealed.

The aircraft—recently dubbed Ghostrider by AFSOC—touched down to begin 10 months of modification work at Eglin.

Ghostrider pairs the AC-130W's precision strike ability with the MC-130J's airframe. It will carry low-yield precision weapons specifically opti-



Stop Right There: SrA. Bradley Mock draws a bead during an active shooter exercise at Eglin AFB, Fla. Airmen entered a building to apprehend a "suspect," assess the "wounded," and provide information to emergency responders. Active shooter exercises prepare airmen for action should an unauthorized person enter the base with a firearm.

USAF photo by Samuel Kirg Jr.

Operation Enduring Freedom

Casualties

By Feb. 12, a total of 2,168 Americans had died in Operation Enduring Freedom. The total includes 2,165 troops and three Department of Defense civilians. Of these deaths, 1,718 were killed in action with the enemy while 450 died in noncombat incidents.

There have been 18,230 troops wounded in action during OEF.

RPA Strikes Still Rising

After rising gradually for several years, the number of weapons launches from Air Force remotely piloted aircraft over Afghanistan ticked up sharply in 2012, according to Air Forces Central's year-end airpower statistics.

Service-operated RPAs dropped 506 weapons on ground targets in Afghanistan last year, up from 294 in 2011, the data released Jan. 6 show. In 2010, 279 RPA weapon releases were logged, up from 257 in 2009.

The Air Force uses armed MQ-1 Predators and MQ-9 Reapers in Afghanistan as well as unarmed RPAs, such as RQ-4 Global Hawks.

Predators can fire Hellfire air-to-surface missiles, while Reapers carry Hellfires and 500-pound precision guided bombs.

AFCENT began including the data on RPA weapon releases several months ago with the release of the airpower stats for 2012 through October.

Rescue Ending at Kandahar

The Air Force's combat rescue mission at Kandahar Airfield in southern Afghanistan is coming to a close after 11 years.

On Jan. 30, airmen at Kandahar came together to mark the inactivation of the 46th Expeditionary Rescue Squadron. This "Guardian Angel" pararescue unit was based at Camp Bastion northwest of Kandahar but also operated a detachment at Kandahar.

The ceremony also marked the imminent departure of the 59th ERQS HH-60 rescue helicopters from Kandahar. There is no planned replacement for these rescue helicopters at the base.

"Because of Guardian Angel efforts in Afghanistan, many lives have been saved, even more enemies have been deterred," said Maj. Joseph Barnard, 46th ERQS commander. "Now, coalition troops' need for advanced access to sophisticated care under fire is lessening," he noted.

Rescue forces at Kandahar saved nearly 1,200 lives, evacuated nearly 1,800 additional personnel from the battlefield, and stood alert for 97,000 hours since they began operating from there in February 2002, according to the 451st Air Expeditionary Wing.

A rescue capability at Bagram Air Base in eastern Afghanistan is being maintained.

Afghanistan Transition Accelerated

Afghan security forces will take the lead for security across all of Afghanistan from NATO forces sooner than originally planned, assuming that role this spring instead of midyear, President Obama announced.

"Because of the progress that's been made by our troops, because of the progress that's been made in terms of Afghan security forces, ... we are able to meet those goals and accelerate them somewhat," Obama said alongside Afghan President Hamid Karzai at the White House Jan. 11. "Starting this spring, our troops will have a different mission—training, advising, assisting Afghan forces," added Obama.

There are still some 66,000 US troops in Afghanistan. The US combat mission is scheduled to conclude there at the end of 2014. Obama said the details of how the US drawdown will proceed aren't yet "fully determined."

Discussions with the Afghan government are still under way on the scope of US troop presence post-2014 to train, assist, and advise the Afghan forces, he said.

mized for urban engagements, such as Small Diameter Bombs and Griffin mini-missiles, AFSOC stated.

Technicians are scheduled to complete the AC-130J prototype in November, to begin flight trials the following month. A second MC-130J is scheduled to arrive for conversion at Eglin in Fiscal 2014, a base spokeswoman said.

The command now plans to acquire 37 AC-130Js under a \$2.4 billion recapitalization plan to replace older AC-130Hs.

Fresno F-16 Crash

An F-16C from the California Air National Guard's 144th Fighter Wing at Fresno went down in the California desert during a routine mission Dec. 27.

The pilot ejected safely and was admitted to a local medical facility before being released the same day, a wing spokesman said.

Wing officials instituted a one-day internal safety stand-down the day after the mishap for all aircraft except the unit's alert F-16s tasked with round-the-clock air defense duties under NORAD.

Raptors to Kadena

A contingent of F-22s and some 300 airmen arrived on Okinawa, Japan, from JB Langley-Eustis, Va., as part of a normal rotation of combat forces to the Asia-Pacific theater Jan. 14.

Pacific Air Forces officials emphasized that while the deployment comes at a time of heightened tensions between China and Japan over territorial disagreements in the East China Sea, the F-22s routinely deploy to the area.

Days before the arrival of the Raptors on Okinawa, Chinese J-10s and Japanese F-15s intercepted and shadowed each other near the disputed Senkaku Islands, according to the *Los Angeles Times*.

While on Okinawa, the F-22s and Langley airmen will serve as part of US Pacific Command's theater security package to ensure regional stability and will take advantage of the rotation to train with Kadena's 18th Wing.

The four-month deployment includes Active Duty personnel from the 1st Fighter Wing and members of the Virginia Air National Guard's 192nd FW.

Are We There Already?

Air Mobility Command cited pilot error in the unexpected landing of a C-17 at a small airstrip four miles shy of its intended touchdown at MacDill AFB, Fla., last July, the *Tampa Bay Times* reported.

"The young pilot did a good job landing, albeit on the wrong strip," said US Central Command boss Marine Gen. James N. Mattis, who was one of the 23 passengers aboard the July 20 flight, the press article said Jan. 24.

AMC officials said the pilot misjudged his position due to "fatigue, complacency,

Senior Staff Changes

RETIREMENT: Brig. Gen. John R. Ranck Jr.

NOMINATIONS: To be Major General: Arnold W. Bunch Jr., Theresa C. Carter, Sandra E. Finan, Jeffrey L. Harrigian, Timothy J. Leahy, Gregory J. Lengyel, Lee K. Levy II, James F. Martin Jr., Jerry P. Martinez, Paul H. McGillicuddy, Robert D. McMurry Jr., Edward M. Minahan, Mark C. Nowland, Terrence J. O'Shaughnessy, Michael T. Plehn, Margaret B. Poore, James N. Post III, Steven M. Shepro, David D. Thompson, Scott A. Vander Hamm, Marshall B. Webb, Burke E. Wilson, Scott J. Zobrist. **To be Brigadier General:** Nina M. Armagno, Sam C. Barrett, Steven L. Basham, Ronald D. Buckley, Carl A. Buhler, John A. Cherrey, James C. Dawkins Jr., Patrick J. Doherty, Dawn M. Dunlop, Thomas L. Gibson, James B. Hecker, Patrick C. Higby, Mark K. Johnson, Brian M. Killough, Robert D. LaBrutta, Scott C. Long, Russell L. Mack, James E. McClain, Patrick X. Mordente, Shaun Q. Morris, Richard M. Murphy, Paul D. Nelson, John M. Pletcher, Duke Z. Richardson, Brian S. Robinson, Barre R. Seguin, John S. Shapland, Robert J. Skinner, James C. Slife, Dirk D. Smith, Jeffrey B. Taliaferro, Jon T. Thomas, Glen D. VanHerck, Stephen N. Whiting, John M. Wood.

CHANGES: Brig. Gen. (sel.) James B. Hecker, from Cmdr., 432nd Wg. & 432nd Air Expeditionary Wg., ACC, Creech AFB, Nev., to Cmdr., 18th Wg., PACAF, Kadena AB, Japan ... Brig. Gen. Scott W. Jansson, from Cmdr., Defense Log. Agency Aviation, Defense Log. Agency, Richmond, Va., to PEO, Weapons, AF Life Cycle Mgmt. Center, AFMC, Eglin AFB, Fla. ... Maj. Gen. (sel.) Michael J. Kingsley, from Vice Cmdr., AFSOC, Hurlburt Field, Fla., to Dir., NATO Afghanistan Transformation Task Force, Intl. Security Assistance Force, Kabul, Afghanistan ... Brig. Gen. (sel.) Scott C. Long, from Cmdr., 388th FW, ACC, Hill AFB, Utah, to Cmdr., 31st FW, USAFE, Aviano AB, Italy ... Maj. Gen. Kenneth D. Merchant, from PEO, Weapons, AF Life Cycle Mgmt. Center, AFMC, Eglin AFB, Fla., to Dir., Global Reach Prgms., Office of the Asst. SECAF, Acq., Pentagon ... Brig. Gen. Matthew H. Molloy, from Cmdr., 18th Wg., PACAF, Kadena AB, Japan, to Dep. Dir., Ops., NORTHCOM, Peterson AFB, Colo. ... Brig. Gen. Kenneth E. Todorov, from Dep. Dir., Ops., NORTHCOM, Peterson AFB, Colo., to Dir., Jt. Integrated Air & Missile Defense Org., Jt. Staff, Pentagon ... Brig. Gen. David C. Wesley, from Staff Judge Advocate, AMC, Scott AFB, Ill., to Staff Judge Advocate, AFMC, Wright-Patterson AFB, Ohio ... Maj. Gen. (sel.) Scott J. Zobrist, from Cmdr., 31st FW, USAFE, Aviano AB, Italy, to Dir., Rqmts., ACC, JB Langley-Eustis, Va.

SENIOR EXECUTIVE SERVICE CHANGES: James F. Geurts, to Dir., Acq., SOCOM, MacDill AFB, Fla. ... Michael M. Hale, to Dir., Ground Enterprise Directorate, Natl. Recon. Office, Chantilly, Va. ... Fred P. Lewis, to Dir., Policy & Resources, Office of Warfighting Integration & Chief Info. Officer, OSAF, Pentagon ... Ricky L. Peters, to Exec. Dir., AF Research Lab., AFMC, Wright-Patterson AFB, Ohio ... Barbara J. Sotirin, to Dep. Dir., Prgms., AFRICOM, Stuttgart, Germany ... Randall G. Walden, to Dir., Test & Eval., USAF, Pentagon. ■

and a lack of flight discipline," stated the newspaper.

The Peter O. Knight Airport is on Davis Island across Hillsborough Bay from MacDill. Its runway roughly aligns on the same heading as MacDill's. The aircrew managed to land the C-17 safely, causing minimal damage to the runway, which mainly hosts business jets.

The *Times* also reported that MacDill officials are modifying the way they handle incoming air traffic to mitigate the chances of pilots confusing the two airfields.

Eagles and Spanish Steel

F-15Cs from RAF Lakenheath, England, flew with fighters from six Allied countries at Albacete AB, Spain, for NATO's Tactical Leadership Program course early this year.

Pilots from Lakenheath's 493rd Fighter Squadron brushed up the tactical skills needed to coordinate and lead an allied air campaign over 16 combat scenarios with nearly 30 allied aircraft.

"We can bring in experience that we acquire across the globe and share that with our allies," said Maj. Manny Gomez, War Preparation Center Det. 1 operations director at the TLP. "At the same time, we can learn from them because they also have different ways of doing things."

Lakenheath F-15s flew mixed sorties with Spanish Eurofighters and coordinated with assets from Belgium, Britain, France, Greece, and Italy, during the TLP course at Albacete from Jan. 16 to Feb. 7.

Predator Power Outage

An electrical system failure led to the crash of an MQ-1B Predator remotely piloted aircraft during a mission over Afghanistan last August, Air Combat Command reported.

The RPA switched to battery power after a dual alternator failure crippled its main electrical power source on a sortie Aug. 22, ACC stated in a Jan. 10 press release summarizing the investigation findings.

The Predator stayed airborne despite the malfunction, but its onboard recovery system failed to reboot the electrical system. Controllers operating from Creech AFB, Nev., and Fargo ANGB, N.D., twice lost contact with the RPA before launch-and-recovery controllers in theater were able to take over.

Before the handoff, the Stateside aircrews failed to follow a battery-conservation checklist, causing the aircraft to run out of power and crash short of the runway despite the efforts of local controllers.

The Predator and a Hellfire missile onboard were destroyed in the incident, making for an overall \$4.6 million loss.

USAF photo by SSgt. Andy M. Kin



Fill 'er Up, Yank: A USAF KC-10 refuels a Royal Air Force Typhoon as another—and an F-22 Raptor—wait their turn at the pump. The aircraft were gathered to participate in *Razor Talon*, a monthly large-force and joint unit training exercise designed to test operational concepts such as *AirSea Battle* and *Maritime Air Support*. See also "Typhoons at Red Flag," p. 20.

ICBM Next

The Air Force Nuclear Weapons Center solicited industry for conceptual schemes for a next generation ground based leg to the nuclear deterrent triad. The replies were due at the end of February.

The AFNWC is seeking ideas for a Ground Based Strategic Deterrent with an operational service life from 2025 to 2075, according to an online Federal Business Opportunities notice, revised Jan. 15.

The solicitation is in support of USAF efforts to analyze upgrade or replacement options for the Minuteman III ICBM fleet from four basic angles: incrementally changing Minuteman to make it more capable or developing a new fixed-site, mobile, or tunnel based system.

"Each white paper/proposal should provide adequate technical, schedule, and cost information to allow feasibility analysis of the concept," stated the notice.

Any concepts judged to be "adequate," including continued use of the Minuteman III with no capability upgrades through 2075, will be considered in the analysis of alternatives to identify the best option, according to the center's notice.

Eglin Tests WiFi Pod

Officials with the 40th Flight Test Squadron at Eglin AFB, Fla., wrapped up developmental flight testing of a wireless router destined for the Air Force's Litening and Sniper targeting pods, test officials said in January.

The router is a software upgrade—known by its truncated nickname "Net-T," for "network tactical"—for the two pods carried on B-1 bombers and legacy fighters.

Air Force Aids French in Mali

C-17s flew 15 missions carrying 329.5 tons of cargo and transporting 496 passengers in support of French troops in Mali in January. The French were acting to thwart a jihadist effort to seize the West African country.

A C-17 from Dover AFB, Del., launched the first sortie, delivering troops and equipment from Istres in southern France to Bamako, Mali, on Jan. 21, according to a DOD press release.

Pentagon spokesman George Little said the United States "moved quickly to provide intelligence and airlift" to the French and other nations combating the terrorists in Mali and would continue providing that support.

"We commend the French for their actions in Mali to confront an extremist threat in that country," he said. "We stand by our French allies and will ... continue to work with [them] to determine what their future needs might be."

Little said US C-130s and C-17s also evacuated wounded US and foreign nationals from Algeria following a terrorist attack against a natural gas plant there. They were relocated to facilities in Germany and Italy.

With it, ground forces equipped with the Remotely Operated Video Enhanced Receiver-5, a small-size touchscreen device, will be able to communicate with each other and with the aircraft.

Previously, the ROVER-5 could only send and receive data from aircraft. "This is a new capability the Air Force does not currently deploy with and it has not been tested until now," said Capt. Joseph Rojas of the 40th FLTS and the Net-T project test engineer, in a Jan. 18 Eglin news release.

The router provides real-time information and images without relying on satellites, radio, or other traditional communications. The squadron flew 23 test sorties starting last October, and the Air Force officials hope to complete operational testing and field the router by 2014.

Indian C-17 Starts Testing

Boeing delivered the first of 10 C-17s destined for the Indian Air Force for

flight testing at Edwards AFB, Calif., company officials announced at the end of January.

Edwards' 418th Flight Test Squadron will conduct several months of routine flight testing and inspections of the airplane, which arrived on Jan. 22, detailed base officials.

The Indian government asked for an independent evaluation of its C-17s to ensure it is getting the most out of them, according to an Edwards news release. "This is the first foreign military sale C-17 tested" by the squadron, said Shelly Huie, project manager for the 412th Test Wing's integrated test team.

India signed an agreement with the United States in June 2011 to acquire the C-17s, and Boeing said it is on track to deliver four additional aircraft this year followed by a further five in 2014.

Sniper SE Production Cleared

Lockheed Martin's upgraded Sniper targeting pod has been cleared for full-rate production by Air Force officials.

Developed as a quick-reaction capability under the Air Force's Advanced Targeting Pod-Sensor Enhancement program, the updated Sniper is capable of pinpointing targets beyond visual range.

"With Sniper ATP-SE, aircrews and ground forces can identify targets faster and farther away, boosting their situational awareness and ensuring their safety in high-threat environments," Bill Spangenberg, Lockheed Martin's Sniper program manager, said in a company press release Jan. 16.

The pod has already undergone testing and integration on the A-10, B-1, B-52, F-15E, and F-16, and "initial deployment of Sniper ATP-SE pods will occur this year," said Spangenberg.

Sniper SE incorporates new sensors and processors and boasts greater image stability and accuracy. The upgrades enhance its utility for reconnaissance augmentation with a high-resolution video data link.

USAF photo by SSgt. Vernon Young Jr.



Carefully, Carefully: SrA. John Myer positions a tow bar under the tire of a B-52 during a Red Flag exercise at Nellis AFB, Nev. The massive bomber shredded a tire landing after a Red Flag mission Feb. 1.



Goodbye Hawkeye Falcons

Congress approved the elimination of the Iowa Air National Guard's F-16s, proposed by the Air Force as part of force structure adjustments approved in the Fiscal 2013 defense authorization act.

The Air Force is retiring 21 F-16s from the inventory in Fiscal 2013—all of them from the 132nd Fighter Wing at Des Moines, explained Col. Jon Thomas, the Air Force's program integration division chief at the Pentagon.

Air Force leaders "spent a whole lot of time talking about it," but ultimately the case was clear and "Congress accepted it," he said in a press round table at the Pentagon in January.

The 132nd FW's fighters most recently deployed to Afghanistan in February 2012. Unlike the Air Force's proposal to cut 102 A-10s that Congress scaled back to just 61, the F-16 cut was simpler, said Thomas. "With the A-10s, you were talking about five different squadrons at different locations," he said. With the F-16s, "it was just one unit."

Tactical Party Schools

The Air Force announced JBSA-Lackland, Tex., as its preferred relocation spot for the tactical air control party schoolhouse, choosing Keesler AFB, Miss., as a fallback.

Service officials picked Lackland for its "favorable weather conditions, training efficiencies, and beddown costs," said the

Air Force's deputy assistant secretary for installations, Timothy K. Bridges, in a release Jan. 9. "Based on our criteria-based analysis and the application of military judgment, we feel JBSA-Lackland is the best location for this mission."

Air Force leaders made their choice as the result of detailed site surveys at Lackland and Keesler, identified as candidate sites last May.

A final basing decision will follow completion of a mandatory environmental impact study. Demand for TACPs has outpaced the capacity of the current school location at Hurlburt Field, Fla., prompting the change of venue.

Drill Press Gangs

The Air Force is involuntarily pressing senior noncommissioned officers into military training instructor roles to fill a critical shortage for basic training at JBSA-Lackland, Tex.

"Basic military training is the cornerstone of the Air Force," said Col. Deborah Landry, Air Force Personnel Center's airman assignments division chief, in a release Jan. 11. "So getting the MTI field healthy is a critical priority."

Only qualified technical sergeants and master sergeants will be drafted, and "this month, we will use the nonvolunteer selection process to bring the manning levels up," she said.

NCOs selected for MTI duty will have 45 days to submit their nonvolunteer

A Different Type of Drone: A remotely controlled vehicle pulls a target while an AC-130 shoots it from above at Melrose Air Force Range, N.M., in early February. The unmanned truck, recently acquired by Cannon AFB, N.M., allows squadrons to practice shooting at moving targets without putting human lives at risk.

application or decline the assignment, which would make them ineligible for promotion or re-enlistment, according to AFPC.

Voluntary applications are still accepted, and senior NCOs in critical career fields or with more than 16 years of Active Duty service are exempt.

Turkish Delay on F-35

Turkey has delayed purchasing its first two F-35 strike fighters, citing concerns over the aircraft's development and recent cost hikes.

"The operational capabilities of the F-35 aircraft have lagged behind desired levels, and given the increasing drift of costs to supply aircraft in future years, Turkey is re-evaluating its plans," stated Turkey's defense procurement agency, UPI reported Jan. 14.

The US government, Lockheed Martin, and Turkey were close to signing a deal last year for the company to deliver the first two Turkish F-35s in 2015. Turkey is an original F-35 development partner and plans to operate a fleet of 100 airframes. ■

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THE SYRIA QUESTION

By John A. Tirpak, Executive Editor

An air war would likely be tougher there than what the US saw in Serbia or Libya.

AP photo via Aleppo Media Center



Here: Syrian rebels stand in the rubble of a building damaged by government airstrikes on Feb. 13. Right: A Syrian L-39 strike aircraft fires a rocket during an airstrike on Tel Rafat, a village north of Aleppo.

JAN. 16, 2013—

SYRIA'S air forces seem to be facing one of two fates: either to be destroyed by a US or coalition air armada imposing a no-fly zone on the country, or be inherited by a loose alliance of rebel groups after overthrowing the Bashar al-Assad regime. In the latter case, the victors may then use captured elements of the air force to battle each other for ultimate control of the country.

Either way, the disposition and condition of Syrian defenses—the Syrian Arab Air Force (SAAF) and Syrian Arab Air Defense Force (SAADF)—are of intense interest to the US Air Force, which in one way or another may have to engage them.

Opinions as to the strength and lethality of Syrian air defenses vary widely. While some public interest groups that keep tabs on the Syrian order of battle describe a highly

credible and practiced air defense system, others—including some recent high-level Syrian defectors—suggest it is a paper tiger, neglected and ineffective.

Assad's regime has used attack helicopters, strike aircraft, medium bombers, and even Scud tactical ballistic missiles against opposition forces already—often indiscriminately and with heavy loss of civilian life. Although opposition forces have made great gains during the two-year civil war and are, at this writing, within the capital of Damascus, Assad's key asymmetric advantages have been heavy ground weapons—including tanks—and aircraft, chiefly attack helicopters.

The regime has been supplied with weapons and technical assistance from both Iran and Russia. Opposition forces have had the financial backing of Saudi Arabia and other Persian Gulf patrons. France, having recognized the opposition forces



Реклама gphoto by Gosori-Tambaseni

as the legitimate authority of Syria, has pledged to provide the rebels with weapons.

Opposition forces have consistently asked NATO and the US to establish a no-fly zone over Syria to prevent Assad from using his air force. Short of that, there has been discussion of establishing “safety” or “exclusion” zones within Syria—but not a nationwide no-fly zone—where noncombatants could be secure from air or ground attack along the border with Turkey.

In early December, the US Senate, by a 92-to-six vote, passed an amendment to the 2013 defense bill directing the Defense Secretary to develop plans for implementing a no-fly zone over Syria. The amendment specified targeting Assad's forces' ability “to use airpower against civilians and opposition groups in Syria.”

The move followed many congressional calls for intervention, the most prominent from Sen. John McCain (R-Ariz.), who has complained the US and its allies have stood by while



Top: Syrian air defenses include anti-aircraft missile launchers such as these, shown in a 2011 live-fire exercise. **Above:** Wreckage of a Turkish RF-4 Phantom shot down by Syrian forces. Syrian officials said the Turkish jet was flying in its airspace; Turkish officials insist the jet was in international airspace.

tens of thousands of Syrians have been killed by the Assad regime.

The White House has countered that the loose coalition of opponents to the Assad regime includes elements of al Qaeda and other Islamists. The Obama Administration doesn't want to provide those groups with weapons or an opportunity to gain power in an influential state. It also wants more time for sanctions and other diplomatic efforts to subdue the crisis, or to wait and see if the rebels achieve victory on their own.

In late November, McCain, speaking in Washington, D.C., said Assad's regime can be ousted "without boots on the ground," in

an operation modeled on the 2011 operation in Libya. There, NATO's imposition of a no-fly zone prevented Muammar Qaddafi from using his aircraft to attack opposition forces. NATO then upped the ante by attacking regime ground forces moving toward the opposition forces—effectively, though not officially, serving as the opposition's air force. The strategy led to Qaddafi's ouster in seven months. His regime was replaced by one seemingly appreciative of Western assistance.

In Libya, the US led for the first few weeks, then turned over the preponderance of kinetic attacks to its NATO partners.

Support from the US Air Force, in the form of intelligence, surveillance, and reconnaissance, as well as with aerial refueling, continued throughout the conflict.

McCain predicted in November that Syrian air attacks on its own citizens would stop immediately if NATO imposed a no-fly zone on the country and shot down just one aircraft.

Though "they may like" Assad, McCain said, Syrian pilots "are not going to fly into certain death."

McCain also voiced his support for a NATO decision to deploy Patriot missile batteries to Turkey, arguing they could be used to help enforce a no-fly zone over Syria. NATO, however, has maintained that the deployment is for purely defensive purposes, possibly prompted in part by the shootdown of a Turkish RF-4 Phantom by Syrian air defense forces last summer.

Syria Is Not Libya

Nearly two years into the Syrian uprising, opposition forces have taken government air bases and reached the suburbs of Damascus. The Assad regime has bombed suspected rebel-operating areas in the region with its most powerful attack aircraft: Russian-made, swing-wing Su-24 Fencer bombers. It has dropped bombs within the Yarmouk refugee camp—which is home to more than 150,000 Palestinians—reportedly killing dozens of people and broadening the list of groups whose enmity Assad has earned.

Besides bombing, the regime has resorted to attacks on rebel-held areas with Scud tactical ballistic missiles, armed with conventional warheads, and continued attacking rebels with armed helicopters and fixed wing aircraft such as MiG-23s and L-39 Albatross counterinsurgency aircraft, which have been filmed making such attacks.

Despite the similarities between the situation in Libya and that in Syria—an oppressive dictator resorts to wildly disproportionate force to suppress dissent—Libya is no direct analogy for Syria, and imposing a no-fly zone would be substantially more difficult.

With 22.5 million people, Syria is far more densely populated than Libya and has a substantially larger air force and air defense system than Libya had under Qaddafi.

A variety of open sources converge on a figure of about 450 flyable combat aircraft in Syria's inventory, including about a hundred reasonably capable aircraft such as Russian MiG-29 fighters or older aircraft such as MiG-21s, upgraded with more modern avionics. In addition,

Syria has in recent years upgraded its air defense systems with modern radars and missiles, including “double digit” surface-to-air missile systems like the SA-22 Pantsir, a mobile SAM capable of engaging low-flying targets and even precision munitions. Between 30 and 50 of the mobile systems were delivered, with more on order.

In addition, Syria has large numbers of SA-2 through SA-6 missile batteries. Though largely fixed-site weapons susceptible to jamming and anti-radiation missile attack, the older SAMs are still considered functional and potentially deadly.

More problematic is the possible activation of Russian S-300, or SA-10 Grumble, air defense systems considered analagous to the US Patriot system, with a range in excess of 50 miles and the ability to track and target multiple aircraft simultaneously. Russia has refused to agree to stop supplying Syria with spare parts, technical assistance, and other support for its air defenses, echoing Syria’s claim that the opposition forces are “terrorists” and not legitimate challengers for national authority. Russia, however, has conceded that Assad’s government may not be able to survive indefinitely.

The SA-22 (NATO code name Greyhound) may be the system Syria used to shoot down the Turkish RF-4 reconnaissance jet that may or may not have entered Syrian airspace near Latakia last June. Syria offered a near-apology for the incident, suggesting its gunners thought the aircraft was Israeli. Though they condemned the attack as unprovoked, neither NATO nor Turkey launched any retaliation. Turkey then requested the Patriots to prevent Syrian offensive use of missiles or aircraft over the border.

Syria Is Not Serbia, Either

Some military observers suggested the RF-4 was testing Syrian air defenses, while others have proposed the aircraft was conducting surveillance, to see if Syrian refugees to Turkish border camps were being pursued by military forces. Thousands of such refugees have fled to Turkey to escape Syrian government attacks.

The Free Syrian Army—the name of the largest armed coalition opposing Assad and formed by dissident military officers in 2011—has claimed the downing of a number of Syrian Air Force jets, using a combination of captured anti-aircraft guns and man-portable, shoulder-fired missiles captured when rebels took control of an air base.

US military leaders have warned that Syria shouldn’t be considered a pushover.



Reuters photo by Youssef Boudial



Top: A Syrian Air Force helicopter prepares to fire a rocket during an August 2012 airstrike on Aleppo. Above: Before and after surveillance photos of the alleged Syrian nuclear reactor destroyed in a mission flown by Israeli pilots in September 2007.

At a hearing of the Senate Armed Services Committee in March 2012, Chairman of the Joint Chiefs of Staff Army Gen. Martin E. Dempsey said the US military “can do just about anything we’re asked to do” regarding Syria.

He deferred specifics to a closed session, but said, “I’ll just say this about [Syria’s] air defenses. ... They have approximately five times more sophisticated air defense systems than existed in Libya, covering one-fifth of the terrain. All of their air defenses are arrayed on their western border, which is their population center.” He added that Syria has “about

10 times more [air defense capability] than we experienced in Serbia.”

In Serbia, NATO aircraft were vexed by mobile SAM systems that hid throughout the conflict, unexpectedly popping up often enough to knock down several aircraft, including an F-117 stealth attack jet.

The last time the US engaged Syria’s air defenses was in 1983, in retaliation for Syrian missiles fired from anti-aircraft positions in Lebanon at US reconnaissance jets. In that raid, the US launched attacks on 20 targets and lost two carrier aircraft—an A-6 Intruder and an A-7 Corsair—to Syrian air defense missiles. One pilot died and

his bombardier-navigator was captured and held for 30 days before his release was negotiated.

Syrian Air Force defections began last June, when Col. Hassan Merei al-Hamade broke away from a formation of MiG-21s and landed in Jordan, where he requested political asylum. Other SAAF officers began appearing in opposition videos, and the rebels claim more than a dozen attack helicopter pilots have come over to their side since last summer.

In October, a retired Syrian general, Akil Hashem, who supports the opposition and wants Western intervention in Syria, claimed that a single US aircraft carrier and combat jets from a nearby country could establish and maintain a no-fly zone. An analyst told UPI news service that Hashem said the no-fly zone could be established just over opposition strongholds like Aleppo and Idlib, both near the Turkish border. Long-range missiles could keep Syrian fighters at bay, he said.

Another former Syrian Air Force general who has joined the opposition—Maj. Gen. Mohammed Fares, a former cosmonaut—was quoted by Fox News in November as saying air attacks against opposition forces are being carried out by only a third of the regime's pilots because Assad cannot count on the loyalty of the other two-thirds. He also said that while spare parts for the Syrian Air Force are running low, Assad still has hundreds of aircraft available for combat. Fox said it was impossible to verify Fares' comments.

In September 2007, Syria's air defenses suffered a humiliating defeat when Israeli aircraft successfully penetrated Syrian airspace and destroyed what the International Atomic Energy Agency had concluded was a nuclear reactor. Operation Orchard saw Israeli F-15Is (the equivalent of the USAF F-15E) and F-16Is attack the facility, leveling it. The ability of Israel to get through Syrian air defenses—apparently undetected—led to an internal investigation in Syria, along with Russia, whose SAM systems were protecting the area.

Various aviation experts have suggested that Israel defeated the Syrian air defenses with a cyber attack that misdirected radars and other sensors away from the target. The remains of the reactor—which bore a strong resemblance to those constructed by North Korea—were quickly cleared away and the remaining hole filled in by the Syrian government, which denied there had been any military purpose at the site.

Syria's Air Force is heavy with air-to-air fighters. The most modern are MiG-29s:

Syria has about 80, of which almost 70 are deemed operational. There are also about 30 flyable MiG-25 Foxbats, high-flying interceptors that some analysts suggest could be a threat to patrolling AWACS or tanker aircraft. More than a hundred MiG-21s and a hundred MiG-23s are available, and Syria has been relying on the latter for ground attacks.

In the March 2012 SASC hearing, Dempsey said the US "almost unquestionably" would have to take the lead in any attack on Syria's air defenses and airfields in order to pave the way for a no-fly zone—a campaign that he agreed would probably take "several weeks." Only the US, he said, possesses the "electronic warfare capabilities necessary to do that."

No-Fly Zone Logistics

While senior US military leaders privately express complete confidence that a Syrian no-fly zone could be established in relatively short order, the logistics would be a significant challenge.

Short-range fighters would likely be positioned at Incirlik AB, Turkey, not far from Syria's northern border. More fighters could be positioned at the British garrison of RAF Akrotiri on Cyprus. But the presence of combat aircraft at both locations would displace aerial tankers, which would have to be based much farther away, assuming basing privileges are not granted by Jordan or Saudi Arabia.

Basing aircraft in Iraq or Israel is not considered a plausible scenario.

Maintaining a no-fly zone would require tankers and AWACS or E-2C Hawkeye-like aircraft to maintain station off the Syrian coast along with fighters available for a quick intercept of any Syrian aircraft launched.

Senior USAF officials have said any engagement of the Syrian air defense system would require the use of F-22 stealth fighters, given the overlapping radars and numbers of SAMs Syria fields in the western portion of the country.

Besides land-based aircraft, the US could use aircraft carriers to enforce the no-fly zone. A US carrier air wing has only about 30 fixed wing combat aircraft, however, most of which would be F/A-18 Hornet strike fighters, while about four would be EA-6B Prowler or EA-18G Growler electronic attack aircraft.

Dempsey, at the SASC hearing, urged that any action be undertaken as part of a coalition. That way, Dempsey said, "we increase our capability and capacity, but also we've shown that that produces an enduring outcome."

In Libya, there was a clear demarcation between where regime forces were and where the opposition forces were, making it easier to strike the loyalists from the air. The war in Syria, by contrast, is marked by fluid battle lines within cities, changing by the day, if not the hour. Striking Syrian ground forces from the air, according to one Pentagon analyst, would require "exquisite intelligence" and probably spotters on the ground.

Furthermore, government-backed militias that are not in uniform are also fighting the rebels in Syria, making it extremely hard to distinguish between the warring forces.

Alexander R. Vershbow, NATO's deputy secretary general, told reporters last August that Syria's air defenses are "more formidable" than Libya's but are nothing NATO "couldn't handle." However, he acknowledged that NATO countries, hampered by budget cuts, have been slow in restocking the munitions they expended in Libya. NATO members, he said, "recognize their responsibility" to have enough weaponry on hand for "the next one, whatever it might be." He also confirmed that one of the key lessons learned from Libya was that NATO European partners don't maintain an adequate weapons inventory. America's NATO partners, running low on munitions, had to rely on US stocks for the bulk of the Libyan campaign.

The American public is not enthused about the prospect of intervention in the Syrian conflict. A *Washington Post*-ABC News poll conducted in mid-December found some 73 percent of those polled felt the US "should not get involved" in the Syrian civil war, and nearly half disapproved even of the Obama Administration's recognition of the loose-knit opposition group as the legitimate authority in Syria.

However, the poll also showed that support for intervention ratcheted up sharply—to 62 percent—if the intervention was confined to creating a no-fly zone over the country. About the same percentage would want full US military intervention if Assad used chemical weapons against his own people, and the number rose to 70 percent if Assad's regime lost control of its chemical weapons.

In early December, based on intelligence reports that the Syrian regime was readying chemical weapons for use against the opposition, President Obama issued stern warnings that Assad would be "held accountable" for such an event.

"The use of chemical weapons is and would be totally unacceptable," Obama said, and would represent a trigger for US involvement in the conflict. ■



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SPY EYES IN THE SKY

By Marc V. Schanz, Senior Editor

The long-term futures for the U-2 and Global Hawk are uncertain, but for now their unique capabilities remain in high demand.

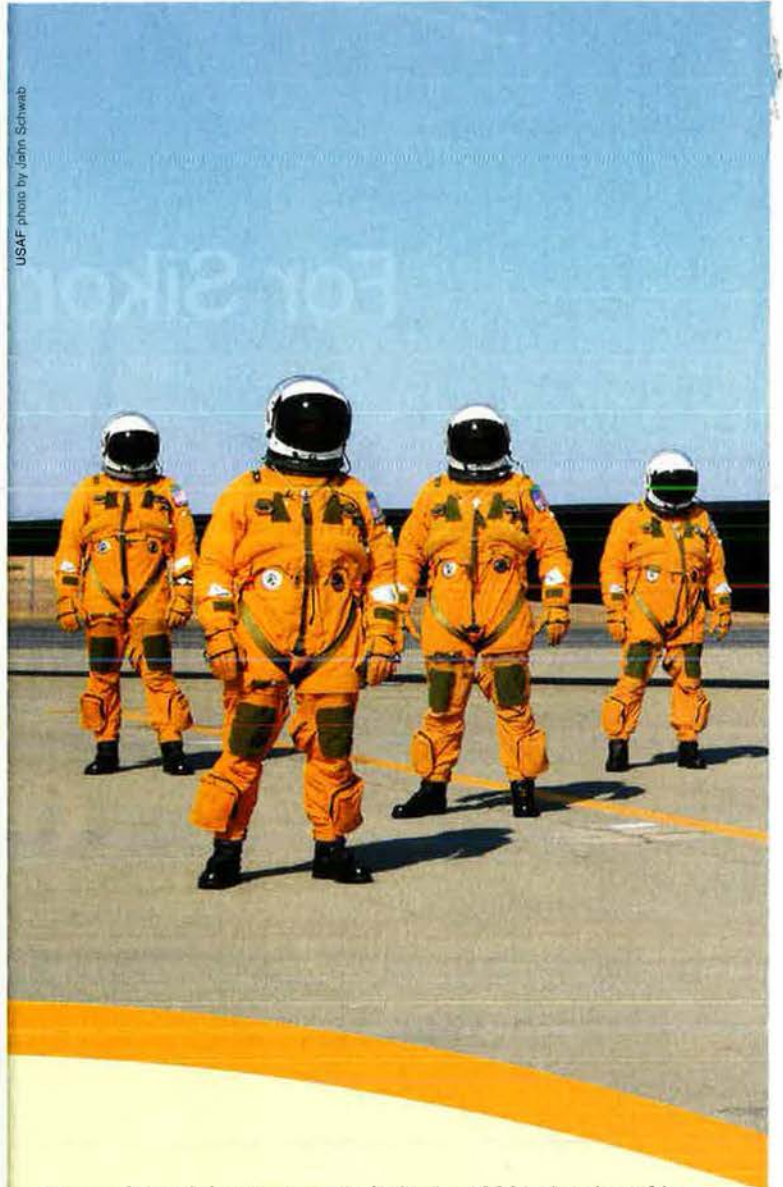
NEITHER the U-2 Dragon Lady nor the RQ-4 Global Hawk—the Air Force’s highest-altitude spyplanes—are new. The high-altitude U-2 harkens back to the 1950s, and its remotely piloted Global Hawk stablemate has flown since the 1990s. However, as the Air Force’s intelligence, surveillance, and reconnaissance needs evolve rapidly, the 9th Reconnaissance Wing at Beale AFB, Calif., is reinventing the way it uses the aircraft and how it trains their pilots and operators.

The Air Force wanted to mothball its fleet of 18 Block 30 Global Hawks in Fiscal 2013, preferring the U-2 for its lower operating costs and greater versatility. Congress didn’t go along with the proposal, however, so the Block 30s will keep flying, at least through Fiscal 2014. That means USAF will continue to need operators for the Block 30s and pilots for the U-2s. The Air Force thus wants to keep the U-2 flying to 2040 (at least) and maintain the Block 20 Global Hawks—fitted with a modernized communications package—and the Block 40 models, featuring the Multi-platform Radar Technology Insertion Program (MP-RTIP), a moving-target sensor capable of tracking ground targets as well as low-flying objects such as cruise missiles.

Shattering the Paradigm

This is not the first time Beale has reconfigured its plans. The U-2 has also been on the chopping block numerous times, most recently being set to retire in 2014 but winning repeated reprieves for flexibility and unique capabilities.

USAF photo by John Schwab



Many of the airframes were built in the 1980s, the aircraft’s service has been extended substantially, and so the U-2 may continue to fly for 25 more years.

As the wars in Iraq and Afghanistan have heralded the rise of the Air Force’s unmanned ISR fleet, public attention has focused on proliferation of the MQ-1 Predator and MQ-9 Reaper. Their operations in combat have become synonymous with airpower and global ISR in counterinsurgency warfare. Much scrutiny has been directed the Air Force’s way—both from its leadership and from the Office of the Secretary of Defense—concerned over how USAF meets the demand for RPA capabilities while ensuring pilots and crews receive proper training and development.

Co-locating primary training and operation of two dissimilar platforms—the U-2 and the RQ-4—is an unconventional arrangement, Beale officials pointed out. However, it has paid dividends for high-altitude ISR.

Remotely piloted aircraft “shattered this paradigm about where the aircrew has to be as far as controlling the airplane,” said Lt. Col. Stephen C. Rodriguez, commander of the 1st Reconnaissance Squadron, the formal training unit for both airframes. Each year, about 24 U-2 pilots and 60 RQ-4 pilots go through the 1st RS training program.

Despite their shared mission and similar long, thin wings, the two aircraft are very different. The U-2 has a long and storied history as the Air Force’s premier sensor “truck,” as Rodriguez and others referred to it. It has room for specialized



Fourteen U-2 instructor pilots from the 1st Reconnaissance Squadron with a Dragon Lady on the ramp at Beale AFB, Calif. USAF wants to keep U-2s flying to 2040, at least.

imagery sensors and a great deal of power to spare, being essentially a jet-powered glider. A pilot onboard allows the aircraft to make unplanned detours and mission changes as requested by ground-based analysts.

The Global Hawk, by comparison, has a more limited suite of sensors and flies a carefully planned mission that it more or less carries out autonomously, once launched. It can fly extraordinarily long missions—28-plus hours.

Spy vs. Spy

The aircraft complement each other, Rodriguez said. U-2s can fly at some 70,000 feet, but its sensors differ from those on the Block 30 RQ-4s. Since 2012, USAF leadership has stressed this point in pushing to terminate the Block 30 program. It would be too expensive, Air Force Secretary Michael B. Donley has argued, to add sensors to the Global Hawk program that would match those that can already be flown on the U-2.

The U-2 for example, has the capacity to take extremely high-resolution “wet film” images that can be enlarged beyond the resolution of the digital images Global Hawk can capture.

Training for the two platforms is also very different. A U-2 pilot will, through the course of the program, qualify in a T-38 trainer, fly the TU-2S two-seat trainer, and then accumulate hours in the U-2S for mission qualification before assignment to the 99th Reconnaissance Squadron at Beale.

Global Hawk pilots, in contrast, go through a three-month training syllabus to become experts on high-altitude RPA operations, then are assigned to the 12th RS at Beale or the 348th RS at Grand Forks AFB, N.D. There’s none of the traditional “flying around the flagpole” for Global Hawk pilots-in-training, one of the reasons why the 1st RS can produce RPA operators at a higher rate annually than U-2 pilots.

There is tremendous flexibility and oversight in the training aspect of building Global Hawk operators, Rodriguez noted. In real time, pilots can fly missions on the other side of the world, with their instructors looking over their shoulders in the mission control element. RPA pilot trainees can cross the street at Beale and walk into an operational squadron flying live missions as well, he said.

“The [operational squadrons] are our prime customers. They are giving us feedback as to how we can improve our training



USAF photo by SSgt. Bernnie J. Davis III

SSgt. Ryan Conversi, a crew chief for the RQ-4 Global Hawk, reviews technical orders on a vehicle test controller at Beale. An advantage of the Global Hawk is its ability to fly extremely long missions—28 hours or more.

from other manned aircraft programs ranging from those who flew the now-retired RF-4s to RC-135s and even U 2s.

Today, the Air Force builds Global Hawk operators from scratch for a field known as 18X to airmen. USAF has developed this approach across the RPA fields—from Predators and Reapers to Global Hawks, said Maj. Ted Shultz,

A Century of Flying ISR

This month, the 1st Reconnaissance Squadron at Beale AFB, Calif., celebrates the 100th anniversary of its activation. The Army organized the 1st Provisional Aero Squadron at Texas City, Tex., on March 5, 1913, initially with nine aircraft, nine officers, and 51 enlisted men in two companies.

Three years later, after Pancho Villa's raids into the US, the 1st Aero Squadron joined up with Army Brig. Gen. John J. Pershing to support his expedition into Mexico. Under the command of Capt. Benjamin D. Foulois, the 1st carried out reconnaissance and communications missions. It became the first US tactical aviation unit to participate in military field operations.

Since its first deployment, the unit that became the 1st RS has maintained an unbroken flying heritage.

As the 1st Aero Squadron, it participated in four World War I campaigns; 13 Iron Crosses on the squadron patch symbolize the 13 kills its pilots scored against German aircraft during the war.

In World War II, as the 1st Bombardment Squadron, it flew attacks against Japan in B-29s, including raids on Tokyo and key industrial targets.

In June 1966, the squadron returned to its reconnaissance roots and moved to Beale. It operated the SR-71 Blackbird, a triple-sonic aircraft capable of flying above 80,000 feet and tasked heavily in the Vietnam War. Beale became home to the U-2 in 1976 and gave up its SR-71s in 1990, as the Cold War wound down.

In 1991, the squadron became the 1st Strategic Reconnaissance Squadron (Training), taking on the formal training unit mission for the U-2, a mission that continues to this day. The squadron expanded to include the RQ-4 Global Hawk mission in 2001.

Since its founding in 1913, the 1st RS has flown 47 types and models of aircraft and has been stationed at some 50 locations around the world.

process. We don't have a tyranny of distance here," he said. The U-2 trainees enjoy a similar access to operators, and a synergy exists between the two communities.

USAF leaders, such as former Air Combat Command boss Gen. William M. Fraser III (now head of US Transportation Command), have stressed the need to get to a steady state of RPA operations—a balance between training, operations, and career development of airmen who have chosen a path in RPAs. As of late 2012, USAF operated some 59 combat air patrols of

coverage in US Central Command and was working to normalize operations. In the Fiscal 2013 National Defense Authorization Act, Congress mandated that the Air Force submit a report on the state of education, training, and promotions for RPA operators, citing their "persistently lower average" rates.

As the Air Force has kept on the U-2, while simultaneously expanding Global Hawk operations, it has steadily adapted how it organizes, trains, and equips for the worldwide ISR mission. Until last year, Rodriguez said, USAF drew Global Hawk pilots exclusively

USAF photo by ATC Drew Buchanan



the RPA specialty manager in the Air Staff's operations directorate. The Air Force will still take traditional pilots from other fields to provide a "shock absorber," he said, until there are enough RPA specialists to sustain the career field.

The Air Staff estimates that by 2016, about 50 percent of the manpower in RPA pilots will be from 18X.

Imperfect Simulators

Initial candidates in the field now go through a contract flight-screening program in Pueblo, Colo. It concludes with

a solo flight. Then it's off to Randolph AFB, Tex., to qualify in a T-6 simulator, working with instrumentation and other aspects of flight and aviation fundamentals. From there airmen go to another course on RPA fundamentals at Randolph to gain more insight into ground control stations, switches, links, and RPA-specific issues. Once they complete this phase, airmen fan out to the different pipelines; the formal training unit for MQ-1 and MQ-9 is at Holloman AFB, N.M., while Beale provides Global Hawk training.

The Air Force hasn't solved all the issues in its transition from training only pilots to training RPA operators as well. While it may seem there's not much difference between training an RPA operator in a simulator and flying an operational mission, Shultz quickly points out it's a bit more complicated.

"A lot ... is dependent on fidelity of simulators and how you recreate training objectives," he said. "The simulators have made great strides in RPAs, but we aren't there yet." For an RQ-4, for example, an operator works with



SSgt. Heather Doyle walks with a U-2 pilot to the cockpit as maintenance personnel from the 9th Aircraft Maintenance Squadron stand by. It takes dozens of people to prepare, launch, and recover each U-2.

an unarmed, high-altitude platform, and while he doesn't employ weapons, as a Predator operator would, he covers a greater distance, using sensors and working a different mission process.

Moreover, live RPA missions involve multiple data streams, a lot of Internet relay chat, and many other inputs, Shultz said. To simulate a mission with those additional elements realistically is a formidable task.

The learning curve drives a great deal of feedback and lessons learned between operational and training squadrons that fly Global Hawk missions, 9th RW officials observed.

"Beale looks at the whole thing as a synergistic effect. We have both missions here, and we leverage that," said Rodriguez.

He sees his job as building "ISR experts"—regardless of whether they wind up in a cockpit or a mission control element (MCE) operating a Global Hawk on the other side of the world. "Last year, I can safely say, we've operated in every single theater, and we've flown [Global Hawks and U-2s] across the spectrum of conflict, from humanitarian relief" to counterinsurgency operations. But while pilots are at the tip of the spear for the Air Force ISR mission, Rodriguez pointed out, they are only part of a global network that is key to the Air Force's strength in this mission area.

"We are primarily interested in the collection piece, ... but there is a vast ISR enterprise" Beale plugs into, called the Distributed Common Ground

System, or DCGS. It has "thousands of analysts looking at what we vacuum up for them," he said. Indeed, the Air Force DCGS comprises 45 geographically separated sites around the world, one of them at Beale, operated by the 548th ISR Group.

Getting Healthy

Lessons learned from real-world U-2 and Global Hawk operations are being translated in a timely way into how the Air Force develops its high-altitude, long-endurance (HALE) systems ISR training and the RPA operator cadre. Beale aims to find a good balance between training and operations as the operations tempo of a war footing slowly eases.

"We used to do all training in house with a single [RPA squadron], so instructors could bounce back and forth," Shultz said of the RPA pilot field. "We've since separated those two, and I think we're doing a lot better job balancing that, because we've had time to grow our own field and build an [instructor pilot] cadre." This is true across the remotely piloted field, he said.

Regarding the future of the high-altitude mission, Shultz said the Global Hawk status quo remains. "If we did retire [the Block 30], it would free up individuals to support other [areas], yes. ... As of yet, we haven't made any of those moves."

Global Hawk pilots face professional challenges similar to those of

their Predator and Reaper brethren; namely, since demand for these specialists runs high, there has been limited opportunity for career development. This will be a focus area in the coming years, whatever the Block 30's fate.

The small number of RPA units limits the number of leadership positions available. There also haven't been enough RPA operators available for the Air Force to readily spare some for staff positions, Shultz said.

"That being said, we are moving folks up as we get healthy with 18X coming online," he observed. In the last two years especially, he added, the Air Force has worked to increase RPA billets in staff positions to better develop the field.

Much like U-2 pilots at Beale, RPA pilots need to be incorporated into the Air Force's ISR mission. Shultz sees evolving mission requirements affecting this process.

"Demand is still high, and that's not going to change anytime soon," he predicted. But as more personnel flow into Global Hawk operations, and the RPA pilot pipeline fills up, the whole ISR enterprise will have more chances to get healthier: sending pilots to the right training, giving them more developmental opportunities, providing opportunities to go to weapons schools, and other career development moves.

USAF needs "to continue to educate and work those pieces," he said.

Teaching "the [Air Force Academy] cadets, the ROTC cadets, the new recruits on what the RPA mission is, where it is going, and the perspectives and importance of what the RPA plays in the current and future fight" is "a big education piccc," Shultz said. Synergy built between the operations and training of RPA pilots over the past decade will help this process greatly, he said. "Time is on our side." The longer the RPA pilots are in the field, the more USAF will be able to move them on to bigger and better things.

Rodriguez agreed, noting that whether his airmen go on to fly U-2s or Global Hawks, the goal is to help them innovate in the high-altitude ISR arena. "How can we be more efficient, how can you execute a mission set, and how do we find new and better ways to do our missions?" ■



USAF photo by TSgt. Luke Johnson

A Global Hawk lands at Beale. The RPA has flown missions in every theater and across the spectrum, from supporting humanitarian relief efforts to counterinsurgency operations.

By Robert S. Dudley

Amateurs Welcome, Apparently

"A number of questions were asked of me today about specific programs: submarine programs, different areas of technology and acquisitions, and our superior technology. And I've said, I don't know enough about it. I don't. There are a lot of things I don't know about. If confirmed, I intend to know a lot more than I do. I will have to."—*Former Sen. Chuck Hagel (R-Neb.), remarks at a Senate hearing on his nomination to become Secretary of Defense, Wall Street Journal, Feb. 1.*

Voluntary and Involuntary

"As we execute this year's voluntary force management strategy, the Air Force will continue to assess the need for additional voluntary and involuntary force management measures in order to meet authorized end-strength levels in current and future fiscal years."—*Lt. Col. Letitia Marsh, chief of Air Force separation and retirement policy branch, Feb. 4.*

Sleight of Mouth

"We're not winding down the damn war. We're winding down our participation in the war. That's extraordinarily different."—*Former US ambassador Ronald E. Neumann, commenting on US plans to leave Afghanistan in 2014, Los Angeles Times, Feb. 3.*

Tail Lights Around the Bend

"I really believe we can win this thing [but] winning won't occur between now and 2014. We will set the conditions to win during [an additional] decade of transformation."—*Gen. John R. Allen, then commander of coalition forces in Afghanistan, Washington Post, Jan. 30.*

Obligations, We Have None

"What are the duties inherent in citizenship? For Americans, the answer to that question has changed dramatically over time. With regard to military service, the answer prevailing today is this one: No such duty exists. Service in the armed forces, whether pursuant to defending the homeland, advancing the cause of freedom abroad, or expanding the American imperium, has become en-

tirely a matter of individual choice. ... Relieving citizens of any obligation to contribute to the country's defense has allowed an immense gap to open up between the US military and American society. Here lies one explanation for Washington's disturbing propensity to instigate unnecessary wars (like Iraq) and to persist in unwinnable ones (like Afghanistan). Some might hope that equipping women soldiers with assault rifles and allowing them to engage in close combat will reverse this trend. Don't bet on it."—*Retired Army Col. Andrew J. Bacevich, Boston University history professor, op-ed in the Boston Globe, Feb. 2.*

Of Elephants and Russians

"This question of missile defense remains ... the big elephant in the room. ... We have made clear from the outset that NATO has made the decision to establish a NATO missile defense system because it's our obligation to ensure effective defense of our populations. Having said that, we have invited Russia to cooperate and ... now it's up to Russia to engage in that."—*NATO Secretary General Anders Fogh Rasmussen, remarks to reporters at a conference in Munich, Associated Press, Feb. 2.*

Suggestive of Cowardice

"For the past several decades, the media and popular culture have relentlessly advanced the fantasy narrative of women as groin-kicking, martial-arts divas of doom. Where are all the brave men and women who know better?.... Would that lawmakers could stop preening for cameras long enough to examine the issue more closely. ... It's more than clear ... that physical standards would be lowered to allow women where they don't belong. We know this because Gen. Martin Dempsey, Chairman of the Joint Chiefs of Staff, recently said as much: 'If we do decide that a particular standard is so high that a woman couldn't make it, the burden is now on the service to come back and explain to the Secretary, why is it that high? Does it really have to be that high?' ... That our Congress is accepting this change without any debate isn't progress. It is

a dereliction of duty and, one is tempted to say, suggestive of cowardice."—*Syndicated columnist Kathleen Parker, op-ed in the Washington Post, Feb. 3.*

Something Has To Give

"Tricare—the suite of insurance programs that cover service members, their families, and military retirees—now covers nearly 10 million Americans. But DOD is bearing a disproportionate share of this burden. For example, 52 percent of the working-age military retirees who are eligible for private health insurance instead choose Tricare as their primary payer, shifting the costs from private companies to DOD. Out-of-pocket expenses for Tricare beneficiaries haven't changed since the program's inception in 1996 but as costs have skyrocketed, the government's share has grown to 88 percent from 73 percent. ... Something has to give. The Pentagon needs to manage these health care programs more aggressively, and Congress needs to provide the authorities and permission to do so. Otherwise, this critical benefit for service members and their families will become unsustainable and will undermine investment in the capabilities the military needs to accomplish its mission."—*Michele A. Flournoy, former undersecretary of defense for policy, op-ed, Wall Street Journal, Feb. 5.*

Caught in the Tide

"There is a perception that we have a veterans' suicide epidemic on our hands. I don't think that is true. The [suicide] rate is going up in the country, and veterans are a part of it."—*Robert Bossarte, VA epidemiologist and author of new study on veterans' suicide, Washington Post, Feb. 1.*

Shameful Stuff

"We are the world's most powerful military, and we use that to promote peace and stability in the world. It would be a shameful act of irresponsibility if Congress just stood to the side and let sequester take place. It would turn America from a first-rate power into a second-rate power."—*Secretary of Defense Leon E. Panetta, interview with USA Today, Feb. 1.*

The Iraq War changed the Air Force in ways large and small.



IRAQI FREEDOM AND THE AIR FORCE

By Rebecca Grant

TWO F-117s raced toward a target on the outskirts of Baghdad on the night of March 19, 2003, toward their target: a compound believed to be the hideout of Iraqi dictator Saddam Hussein. It was Night 1 of Operation Iraqi Freedom.

As the F-117s headed for Baghdad, ground forces moved out of cantonment areas. Above them a rolling wave of strike

aircraft began their first OIF sorties. “This will be a campaign unlike any in history,” declared Army Gen. Tommy R. Franks, head of US Central Command at the time.

Coalition forces soon swept into the Iraqi capital. A mob toppled a renowned statue of Saddam just three weeks later. The dictator himself had gone to ground—literally. He was captured in December

2003 at the bottom of a spider hole. But it was not until eight years later that the last American forces withdrew from Iraq, in December 2011.

The Air Force changed significantly over the course of OIF. The operation began as a swift air campaign. By the time it ended, new squadrons of remotely piloted aircraft, light surveillance and communications platforms, and tactical

USAF photo by SSgt. James L. Harper Jr.

airlift were on the ramp to respond to the requirements of a grinding counterinsurgency fight. In fact, an MQ-1 Predator RPA beamed back video of the final US convoy leaving Iraq.

In the process, the Air Force also refined and built a combat tested cadre of battlefield airmen.

The lightning-fast initial campaign had its share of major achievements for USAF. One was pressing forward the attack during a blinding sandstorm, sweeping Iraq from March 25 to March 27.

"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," said Gen. John P. Jumper, who was then USAF Chief of Staff. B-1s, B-2s, and B-52s were "up there pounding the heck out of them."

One controller working with the US Army's 3rd Squadron, 7th Cavalry Regiment, called in a B-1 with Joint Direct Attack Munitions when his unit was heavily engaged southeast of Najaf. It was the first time since Vietnam that ground elements were inching forward

in virtually constant contact with the enemy, Jumper recalled. The operation was a use of sophisticated airpower at its best and it delivered big time. Whole groups of Iraqi forces "just got up and walked away," Jumper assessed.

At the beginning of April 2003, advancing land forces reported light resistance and large amounts of destroyed equipment. "As far as large fighting formations, we haven't seen any of that lately," observed the combined force air component commander Lt. Gen. T. Michael Moseley on April 5, 2003. More pressure came from the northern front opened by C-17s dropping the 173rd Airborne Brigade into a box canyon at Bashur, in northern Iraq.

Airmen for a New Battle

The path into Baghdad was prepared. Moseley covered coalition ground forces with multiple layers of forward air controllers and fighter and attack aircraft stacked near the city. He described it as "a mix of assets from the Marine Corps, Navy, UK, Australia, and [the] US Air Force." They carried bombs of



Left: USAF pararescuemen are hoisted into an HH-60 Pave Hawk outside Baghdad in 2009 during a proficiency exercise. Below: A B-2 takes off from Diego Garcia for a bombing mission over Iraq. During the lightning fast initial air operation, B-1s, B-2s, and B-52s pounded Iraqi ground forces mercilessly.



USAF photo by SRA Nathan G. Brevier



Security forces airmen in Humvees conduct patrols in an Iraqi village in 2009. The Air Force took over security responsibility from the Army and patrolled constantly around Balad AB, Iraq.

all types and guns. Marine controllers called specifically for strafing during a firefight on April 9. An A-10 pilot from the Michigan Air National Guard put down some 600 rounds in response, from the Warthog's formidable 30 mm cannon.

By May, the US declared major combat operations over. But the changes to USAF airpower were just beginning.

After the quick opening phase, OIF introduced airmen to a dispersed battlespace with a range of new dangers and challenges. It began with a sinking feeling that the end of major combat operations had not ended the dangers or achieved all objectives.

"I see us certainly dealing with Iraq for quite a period of time," Jumper cautioned in July 2003. An airman deployed from Air Force Space Command to the former Iraqi mega-base at Talil wrote home that same month. "Make no mistake, the 'war' is still going on here, as we are losing Army folks daily," wrote then-Capt. Debbie Horne.

The direction became clear soon enough. Stabilizing Iraq would take far more than the 30,000 to 50,000 troops first predicted. The real number was closer

to 140,000 troops on average, and US ground forces peaked at 168,000 during the surge in late 2007.

What these forces needed from USAF was different than anticipated. Ground troops held major cities even as insurgent resistance grew. But they also fanned out across Iraq on stabilization missions,

which subjected them to sporadic but lethal attack from multiple directions. The land forces needed the air component for four broad missions: supply, surveillance, strike, and safety.

Airlift tempo was one of the first measures. Both strategic and theater tactical lift continued at a high tempo.



"I still have a requirement for 64 C-130s in the theater at a 2.0 crew ratio," said Air Force Gen. John W. Handy, head of US Transportation Command in 2004.

Aircrews were busy and occupied with avoiding threats, too. "As we fly around, we routinely are shot at with MANPADS [man-portable air defense systems], rockets, AAA, small arms," Handy said of airlift across Iraq.

Ground Commander Skills

USAF coped by leaning on Air Guard and Reserve airmen and aircraft and then by purchasing more C-130Js. Still, ground forces called for more theater lift responsive to direct tasking. The answer: the C-27J Spartan. By the time the Iraq war ended, USAF had restocked its tactical airlift fleet.

Armed overwatch and low collateral damage strikes became USAF's new way of doing business. Two battles at Fallujah in 2004 marked the change. In the spring, US ground forces found themselves pinned down. In response, the air component diagrammed the city block by block for the second battle of Fallujah in November 2004.

New technologies, such as the Remotely Operated Video Enhanced Receiver (ROVER) stepped in. Precise weapons and good target data allowed a lighter touch. "A single 500-pound [munition] or less is currently the weapon of choice, and the 100-pound warhead of a Hellfire missile fired from a Predator is often enough to do the job," Air Force Maj. Gen. Allen G. Peck said in a 2006



USAF photo by MSgt. Jim Varhegyi



Left: An F-16 conducts close air support operations over Iraq in 2009. Above: TSgt. Mike Cmelik (sitting) and SrA. Logan Abrams, both joint terminal attack controllers, communicate with a B-1 pilot during a bombing mission.

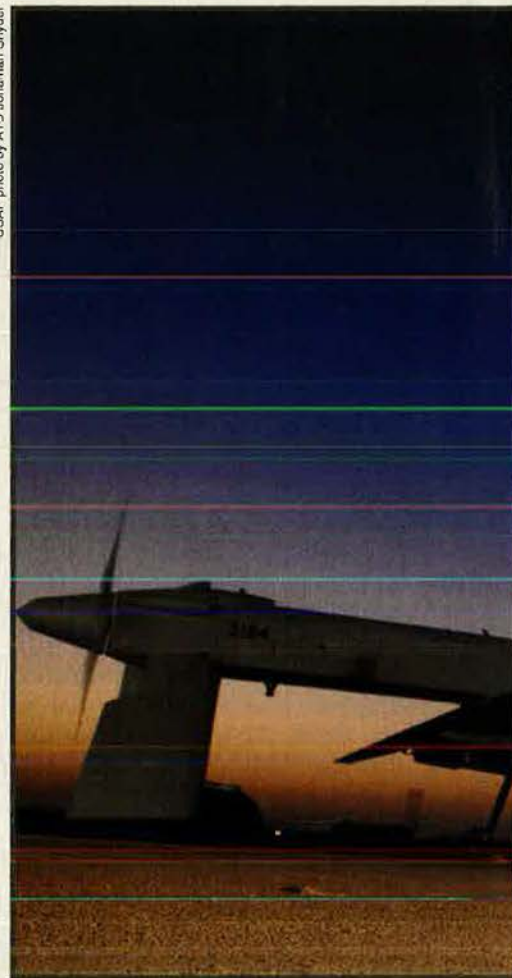
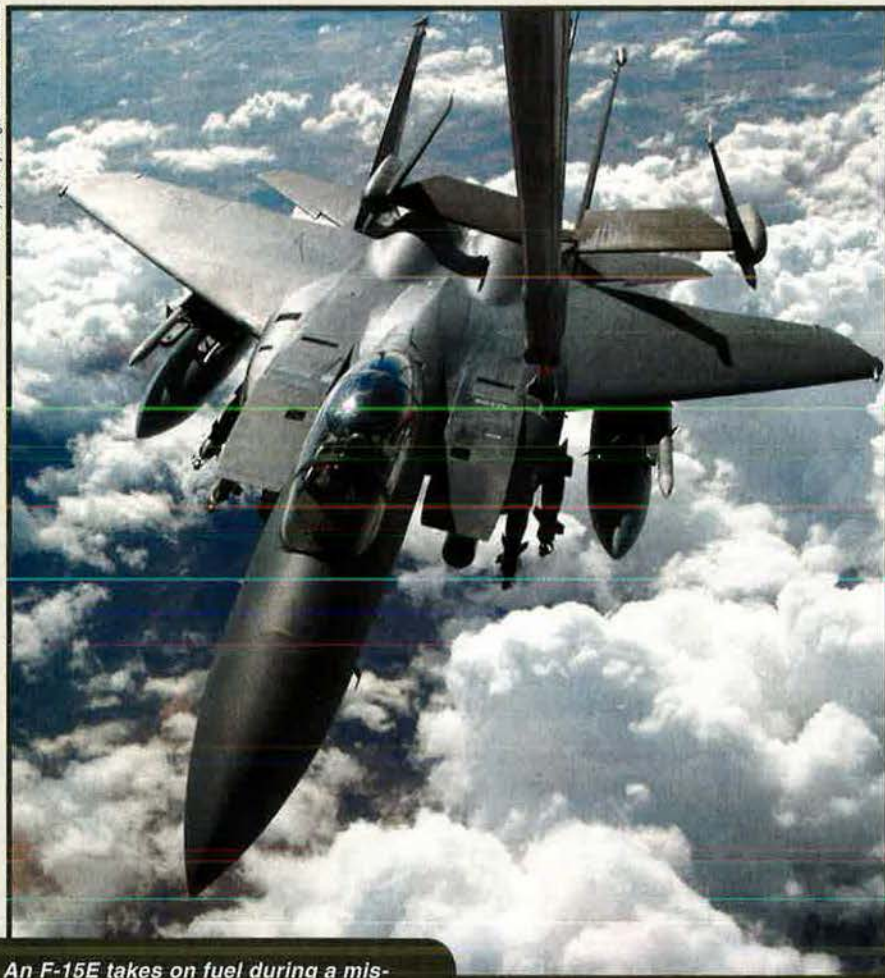
interview with *Aviation International News*. At the time, Peck ran the Combined Air Operations Center (CAOC) at Al Udeid AB, Qatar.

Part of the trick was building the skill of ground commanders in tasking air. The mission that nabbed insurgent provocateur Abu Musab al-Zarqawi in 2006 marked a new level of cooperation. "We were really proud of the ground commander in the Zarqawi raid who thought spherically about what assets were available to help him complete his mission and brought in the F-16s when he needed to," said then-Air Force Secretary Michael W. Wynne.

The Zarqawi incident pointed out that the armed overwatch mission relied at least as much on intelligence, surveillance, and reconnaissance as on strike. For in Iraq, ISR grew in importance in USAF's portfolio of missions.

Numbers tell the tale. As OIF began, USAF fighters logged 8,828 sorties from March 19 to April 18, 2003. ISR aircraft—including everything from AWACS to Predator—flew just 452 missions in that same time frame.

Then the balance shifted. The first cause was simply the need to watch over and supply communications relays for



An F-15E takes on fuel during a mission over Iraq. After the end of "major combat operations" in May 2003, armed overwatch and low collateral damage missions became USAF's priorities.

ground forces unexpectedly in remote locations. Convoys on roads were especially vulnerable. "We leveraged all kinds of reconnaissance assets from UAVs to aircraft to fixed wing aircraft, rotary wing aircraft, patrolling, and other devices," recalled then-Army Vice Chief of Staff Gen. Richard A. Cody.

The years of Iraqi Freedom also transformed the utilization of unmanned vehicles. When the Air Force went to war in March 2003, it did so with a fleet of just eight Predators and three test-model RQ-4 Global Hawks. Of those, only one Global Hawk was ready for action.

By the end of the war, this single Global Hawk tallied up 3,655 images using all sensors. More Global Hawks were built and deployed, but the huge surge came in the inventory of a much lighter and slower aircraft: the Predator. The rise of the Predator and later the MQ-9 Reaper drastically shifted USAF investment and employment priorities in its fleet of aircraft.

"The Reaper represents a significant evolution in UAV technology and employment," Moseley said in 2006. "We've moved from using UAVs primarily in intelligence, surveillance, and reconnaissance roles before Operation Iraqi Freedom, to a true hunter-killer role with the Reaper."

The information needs of the Iraq war compelled the Air Force to purchase remotely piloted aircraft at a rapid clip. USAF had eight MQ-9 Reapers in 2006. By the end of 2010, there were 54. Predators peaked that same year at a total inventory of 174.

Air-Ground Integration

Managing the information flow also incentivized the Air Force to restructure its air operations centers. The new template was the Falconer Air Operations Center capable of serving in many theaters. The thrust, however, was for better integration of the CAOC as a weapon system, actively engaging targets.

Then there was the problem of translating the view from the air to the view on the ground.

The USAF of 2003 was well-equipped to provide interdiction and close air

support in an orchestrated, joint campaign. OIF made that process much more personal—and challenged airmen to rethink central beliefs about tasking lines for airpower to aid ground forces. Mid-decade, USAF increased its number of air support operations centers to 10 to align better with the Army.

From the beginning, Moseley as combined force air component commander and Jumper as USAF Chief of Staff strove to build strong and close relationships with their land force counterparts. By 2006, Moseley was Chief and deep into providing intensive assistance to the land components in Iraq. "One of our missions in a theater is to support land component activities," he explained. "How do you then support land component activities in nonlinear, distributed battlespace?"

That support recast the nature of Air Force contributions to the Iraq War from the four-star level to young airmen driving Army trucks. Thousands of airmen learned what it was really like to be in the Army—by filling in for soldiers during "in lieu of" assignments that were eventually renamed joint



A1C Justin Cole speaks with the pilot of an MQ-1 Predator before a night mission from Ali AB, Iraq. An urgent need for intelligence prompted USAF to purchase RPAs at a rapid clip. Armed with missiles, they became true hunter-killers.

expeditionary taskings. “More and more Air Force are doing Army jobs,” said SMSgt. Matt Rossoni, according to a 2006 Associated Press article. “It’s nothing bad about the Army. They’re just tapped out.”

Helping out ground forces similarly generated the USAF focus on battlefield airmen. The Air Force has always had advance parties, contingency response personnel, and ground force liaisons. However, the number of ground forces and their dispersed positions required an ongoing level of backing different from earlier wars. “The battlefield airmen

classically are combat controllers, terminal controllers, combat weather, combat coms, pararescue,” as Moseley listed them.

The nonlinear battlespace of OIF simply demanded more battlefield airmen—so many, in fact, that the requirement seeped from deployments to basic training, which began to add realistic ground-combat elements for trainees.

In the end, the war reshaped many basic Air Force procedures. “My desire is from Day 1 in basic military training all the way through to better prepare

people for this long war that we’re in,” Moseley explained in 2006.

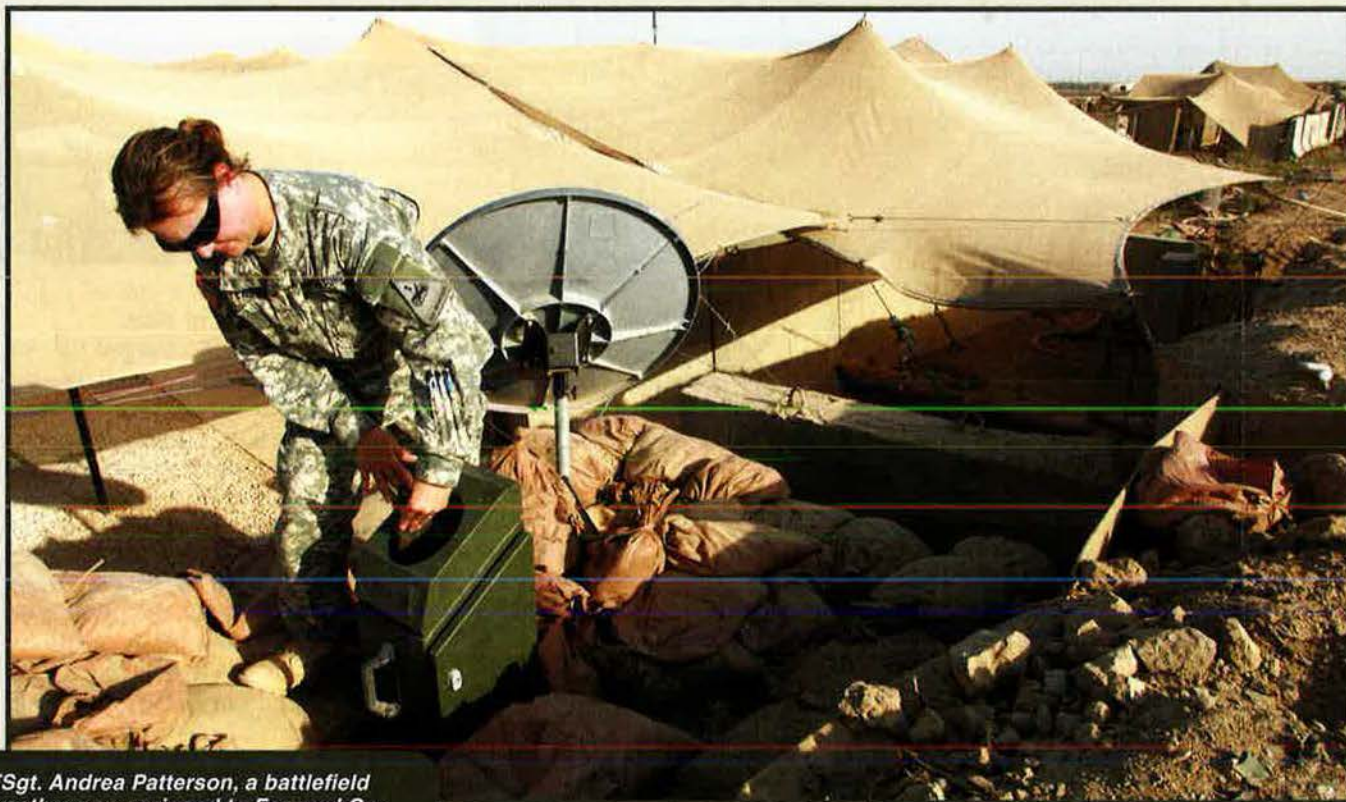
Another way OIF changed the Air Force was bringing air base ground defense to the forefront. Balad AB, Iraq, soon became a hub of USAF operations in that country, due to its invaluable 11,000-foot runways just 50 miles north of Baghdad. Adjacent to the airfield was the Army’s Logistics Support Area Anaconda, home to 13,000 personnel. Balad, unfortunately, sat in an area dominated by Sunni Iraqis hostile to the provisional government. Insurgents quickly picked out Balad as a prime target for hit-and-run mortar attacks and blasts of small-arms fire. One of the first incidents in July 2003 wounded 16 US soldiers, two severely.

Some mortars landed randomly while some targeted the flight line and chow hall areas. For airmen hard at work at the base, the mortars were a constant hazard. One such attack came in April 2004. A1C Antoine J. Holt of the 603rd Air Control Squadron was killed in an attack, while SrA. Scott Palomino had to have his left leg amputated below the knee.

“You realize there’s absolutely nothing you can do about it, so you get a thick skin and go about your business,” flight safety chief Capt. Kristen Snow told *Airman Magazine* in September 2004. Airmen kept up refueling and maintenance for about 220 aircraft per week despite the attacks.

Two frames from a video showing a bomb dropped from a USAF F-16 that killed terrorist leader Abu Musab al-Zarqawi in 2006.





USAF photo by MSgt. Jim Varhegyi

TSgt. Andrea Patterson, a battlefield weatherman assigned to Forward Operating Base Kalsu, south of Baghdad, performs maintenance on a tactical meteorological operating system.

Responsibility for base defense lay with USAF security forces. By the fall of 2004, it was clear to them something had to be done. USAF's security forces put together a sweep operation outside the wire and named it Desert Safeside. Briefers "emphasized the fact that it was the first time the Air Force was going off base in an offensive mission," recalled Amn. Aaron Szulborski, a security forces airman.

The Air Force took over from the Army and patrolled constantly outside Balad during Safeside. The mission was to disrupt logistics for the sporadic attacks by finding locations where mortar parts or missiles were stored, for example. The airmen became a frequent presence in nearby villages and encountered the mix of insurgent violence that became a deadly hallmark of OIF: improvised explosive devices and village patrols.

"It was weird because the Iraqi people were not fazed. Mortars were going off and the kids were still playing in the streets," recalled Szulborski in a 2006 interview.

The security forces teams often included females. In fact, one veteran of the patrols, SrA. Polly-Jan Bobseine, was recognized with Air Combat Command's Airman of the Year award

for her performance in Safeside. Army security specialists at first suggested USAF leave female security forces back on the base while patrols took place outside the wire. Air Force special forces leaders said no. "They were trained and hardened just like the guys were," said MSgt. Paul J. Schaaf II of the 823rd Security Forces Squadron.

The Iraq war vaulted Air Force Special Operations Command to new levels of size and responsibility as overall spending on special operations forces grew. "We are going through a growth spurt and we're happy about that," Lt. Gen. Michael W. Wooley noted in May 2007. Special operators were deployed in multiple locations at the time, including Afghanistan, yet without the driving force of the Iraq war, it would have been hard to imagine the explosive growth in the mission area.

Active Duty and civilian AFSOC personnel numbers grew from 12,195 in 2001 to a peak of 19,973 by 2005. In October 2007, the air commandos took over Cannon AFB, N.M., which lost its ACC mission during the 2005 base realignment round, to handle the expansion.

For several years, AFSOC was also the beneficiary of combat replacement aircraft such as specialized C-130Js under the terms of war supplemental bills approved by Congress.

AFSOC also became operator of its own Predator squadron, the 3rd SOS. "We have a requirement in special operations for about 30 orbits in the AOR [area of operations] right now. We're having a hard time meeting half of that," Wooley said in mid-2007. Afghanistan was a driver too, but again, it was the far-flung Iraq commitments that opened the door.

In May 2009, Air Force Special Operations Command activated the 33rd SOS as an MQ-9 Reaper unit. Depending on how the RPAs were counted, AFSOC grew from about 70 fixed wing aircraft in 2003 to well over a hundred publicly listed aircraft in 2010.

But the marquee moment was initial operational capability for the CV-22 Osprey in 2009. The controversial tilt-rotor may have been born out of the Iranian hostage rescue debacle, but it was the Iraq war that locked in its role for the Air Force. Not one V-22 was in operational status when OIF began. By late 2010, as the war wound down, AFSOC listed 16 CV-22s with more to come.

Connectivity, Defined

Iraqi Freedom intersected with the beginnings of a tactical information revolution. The opening days of OIF in 2003 were probably the last major campaign to take place in a world without social media. The Air Force of



US soldiers board a C-17 at Sather AB, Iraq, in preparation for a flight back to the US during the troop drawdown in July 2010. Airlift was a dangerous mission during Operation Iraqi Freedom—crews were often attacked by insurgents using MANPADS, rockets, and small-arms fire.

2003 was already wired and no stranger to the Secure Internet Protocol Router Network (SIPRnet) chat as a form of military communications. “You don’t go to war without SIPRnet,” briefed retired USAF Lt. Gen. Ervin J. Rokke, a former assistant chief of staff for intelligence, to a conclave of top USAF leaders in 1999 after the Kosovo war. By 2003, no such briefing was necessary.

However, when the war began there was no Facebook or Twitter. Texting was just taking off. BlackBerry devices were in the hands of top echelons but the days of dispersed iPhones and Android connectivity were undreamt of. The effect cannot be easily measured in force structure numbers or sorties flown.

Yet the reach of tactical cyberspace became a new feature of OIF both in counterinsurgency work and routine operations.

“I consider this a major improvement for critical data to be shared in the course of an operation,” said Jumper.

At the CAOC, battle managers watched screens with a cyber-dependent, real-time common operational picture. Blue Force tracker generated a common operational picture of ground as well as air forces. For those with a NIPRnet account and a terminal, cyberspace access on duty also permitted e-mail access back home.

In the field, cyber connectivity was a necessity, not a luxury. An Air Force weather team inserted early into Baghdad Airport to support the land component slept on the taxiway with no water for hygiene and only MREs to eat. But, wrote Capt. Bruce Stansbury in USAF’s *Observer* magazine, they boasted “the full gamut: STU-III, tactical telephone, SIPRnet, NIPRnet, Iridium, and more.” Their state-of-the-art digital network ran on their own generators.

Denying cyber links within Iraq was just as important. Coalition airstrikes knocked out a Cisco switch providing Internet access for Baghdad residents.

Airmen know flexibility will always be demanded of them. As for lasting change, some is embedded in USAF doctrine. In late 2011, the LeMay Center for Doctrine Development and Education at Maxwell AFB, Ala., released a new capstone AFDD 1. It redefined airpower as “the ability to project military power or influence through the control and exploitation of air, space, and cyberspace to achieve strategic, operational, or tactical objectives.”

USAF Maj. Gen. Thomas K. Andersen, then LeMay Center commander, attributed much of the change directly to Iraq. “You can see a lot has evolved from the present conflict in the Middle East,” Andersen said of the revised doctrine. “It shows some flexibility and shows some of the responsiveness of how we present forces to the joint fighting arena.”

The Air Force has now essentially closed the book on its operations in Iraq, although USAF airmen will continue

to mentor the Iraqi Air Force. The war was extraordinarily expensive, and it is far from certain how the long-term US-Iraqi relationship will pan out. But the war did depose a brutal dictator, defeat the resulting insurgency, and install a new democracy.

For the Air Force, the service today is fundamentally changed in many ways from the force of 2003. ■

Rebecca Grant is president of IRIS Independent Research. Her most recent article for Air Force Magazine was “The Crucible of Vietnam” in the February issue.

STRIKE EAGLE

By Otto Kreisher

The airmen were on the ground in Libya, somewhere between the warring loyalists and the friendly resistance.

It is an event all military fliers hope to avoid when flying into combat. At one moment you are a skilled technician in command of a sophisticated aircraft flying high and fast, prepared to wreak lethal havoc on an enemy. Then, suddenly, you are an ordinary human, scrambling on foot around unfamiliar terrain, trying to avoid people who may want to kill you.

That is what happened to the crew of an Air Force F-15E when their fighter went out of control on a night strike mission over Libya in 2011, during Operation Odyssey Dawn. The happy ending to the incident is a testament to the value of interoperability amongst well-trained military professionals and to the survival, evasion, resistance, and escape (SERE) training most US military airmen receive before being sent in harm's way.

The event started in the routine but careful preparation for a two-ship sortie of Strike Eagles from 492nd Fighter Squadron, RAF Lakenheath, UK, on the afternoon of March 21, 2011. It was the third day of air operations in the effort to protect the opposition from Libyan strongman Muammar Qaddafi's troops.

The squadron's aircraft had deployed to Aviano AB, Italy, for Odyssey Dawn as part of the air campaign.

The No. 2 aircraft for the mission, call sign Bolar 34, had Maj. Kenneth Harney as its pilot with Capt. Tyler Stark in the backseat as the weapon systems officer (WSO). Harney was rated as an

"experienced" F-15E pilot with 1,469 hours in the Strike Eagle, 661 of them as a pilot and the remainder as WSO. He had flown combat missions in Iraq and Afghanistan. Stark was a novice aircrew member with 185 total hours, 167.7 as an F-15E WSO.

Lateral Asymmetry

The Strike Eagle was heavily loaded for a long-endurance mission with air-to-air and ground-attack capability. In addition to its internal fuel, Bolar 34 carried two 610-gallon external fuel tanks under its wings and two 750-gallon conformal tanks nestled against the fuselage. It was armed with two AIM-9 Sidewinders and two AIM-120 AMRAAM anti-air missiles. It carried three GBU-38s (500-pound GPS guided Joint Direct Attack Munition bombs) on left wing stations, and four GBU-12s (500-pound laser guided bombs) under the right wing. The fighter also carried a 20 mm rapid fire cannon with 500 rounds in the right side of the fuselage.

The official Air Force accident report noted the F-15E is "inherently right wing heavy" because of the gun—a factor in the subsequent accident. The fighter also had LANTIRN navigation and Sniper targeting pods for the night time precision strike mission.

Bolar 34 and the flight lead, Bolar 33, received normal mission planning briefs and went out to their aircraft at about 5 p.m. Aviano time. The flight took off at 6:13 p.m. and climbed to altitude for the nearly 800 mile run to Libya. After

USAF photo by SFA, Tyler Placie

in-flight refueling from a KC-135 tanker, the two fighters arrived at a designated holding point over Libyan airspace and waited for tasking. The airmen observed anti-aircraft fire "in their direction" and maneuvered away, according to the Air Force's accident report.

When the command and control aircraft gave them a tasking, the Strike Eagles refueled again, from a KC-10, and departed at 30,000 feet for the target—an air defense site—at 10:04 p.m. local time.

About five minutes later, Harney reported to the flight lead that his



An F-15E pulls away after refueling from a KC-10 during a mission for Operation Odyssey Dawn.

right external tank was not feeding into the internal fuel system, and he descended to 20,000 feet to see if the pressure change would resolve the problem. When the tank started to feed, Harney climbed back to 30,000 to join his leader, but shortly told him the tank was feeding slowly.

Arming their weapon systems, the two fighters began their target run at about 10:19 p.m. Though they planned to attack side by side, with the leader on the left and both making left turns after bomb release, Harney moved about two miles ahead during the target

run, the accident report said. Because of this, the flight lead told Harney to make a right turn after release, so he would not cross the leaders' flight path and falling weapon.

At 10:27 p.m., Bolar 34 launched a JDAM against the target. The JDAM came off a left wing station. That added to the Strike Eagle's weight imbalance, or "lateral asymmetry."

The F-15E's gun is on the right; the tank-feed anomaly meant Bolar 34 still had extra fuel in the right side external tank; and four bombs remained under the right wing.

After weapon release, Harney started a descending right turn with 100-degree bank and 330 knots (380 mph) airspeed at military power—full throttle without afterburner. About 90 degrees through the turn, the aircraft nose dropped unexpectedly. Harney released stick pressure to reduce aerodynamic forces, but the accident report stated that the fighter "departed controlled flight" and went into a left spin.

Harney attempted the normal spin recovery procedures to no effect and at 10:28 told his flight lead that "two's in a spin" and radioed, "Mayday, Mayday,



Photo by Arja Niedringhaus

Mayday,” the international air distress signal.

With the spin accelerating as the Strike Eagle approached the recommended uncontrolled flight minimum altitude, Harney told Stark to bail out and initiated ejection at an observed altitude of 5,715 feet, the accident report said.

The ejection seats worked properly as both parachutes inflated and the crewmen suffered only minor injuries on landing. The empty Strike Eagle crashed to the ground and was destroyed.

In the Open

The airmen came down in open fields near the town of Bu Mariem, about 24 miles east of Benghazi, the rebel capital, and about 30 miles in from the coast. When safely on the ground, Harney’s SERE training kicked in. He shed his unneeded flight gear, grabbed his “hit and run” survival kit, and took off following prescribed escape and evasion procedures.

Within minutes, the downed pilot was contacted on his survival radio, apparently by his flight lead. He would be in almost constant contact with friendly aircraft for the nearly three hours he was on the ground.

Stark, who landed some distance from his pilot, sought shelter in a sheep shed, although SERE training advises against going near habitation to avoid contact with people. He was discovered

The hulk of Bolar 34, an Air Force F-15E, lies in an open field east of Benghazi, Libya. Both crewmen ejected safely but faced peril on the ground in hostile territory.

shortly afterward by Libyans, who fortunately were sympathetic to the rebellion.

But Harney’s Mayday call, relayed through the US command net, triggered the kind of recovery operation American military fliers have come to rely on when

they go down in unfriendly areas. Although Air Force crews normally count on the services of dedicated Air Force combat search and rescue personnel, the nearest CSAR unit at that time was hundreds of miles away in Europe, too far to get to Harney in time.

USMC photo by Lance Cpl. Scott L. Tomaszynski



A Marine Corps Osprey takes off from the USS Kearsarge. Marines flying tilt-rotors from this amphibious assault ship flew the rescue mission that recovered the downed Strike Eagle pilot.

Fortunately for him, help was a lot closer: aboard the US Navy amphibious assault ship *USS Kearsarge* about 100 miles off the Libyan coast.

Odyssey Dawn began as a US-only operation, established by Army Gen. Carter F. Ham, commander of US Africa Command, as Joint Task Force-Odyssey Dawn under the command of Adm. Samuel J. Locklear III, commander of US Naval Forces Europe-Africa. Within JTF-OD, the joint force maritime component commander was Vice Adm. Harry B. Harris Jr., commander of US Sixth Fleet, and the joint force air component commander was Maj. Gen. Margaret H. Woodward, commander of 17th Air Force. The JTF-OD staff relocated to the command and control ship *USS Mount Whitney* in the Mediterranean off Libya on March 11, 2011.

Kearsarge was part of an amphibious ready group. The ARG operated with the 26th Marine Expeditionary Unit, an integrated air-ground force equipped with AV-8B Harrier short takeoff and vertical landing attack jets, helicopters, tilt-rotor MV-22 Ospreys, and a Marine battalion landing team.

The aircraft were assigned to Marine Medium Tilt-rotor Squadron 266 Reinforced, and the ground marines were from 3rd Battalion, 8th Marine Regiment, both based at Camp Lejeune, N.C. The *Kearsarge* ARG and the 26th MEU had been deployed since August, and had moved into the Mediterranean first in response to the uprising in Egypt and then to support Odyssey Dawn.

Every MEU has a team of aircrews and marine infantry trained to conduct a tactical recovery of aircraft and personnel (TRAP) mission—the same Marine capability that rescued Air Force Capt. Scott F. O’Grady from the midst of Serb troops after his F-16 was shot down by an SA-6 over Bosnia in June 1995. The 26th MEU’s TRAP team would get the call the night of March 21.

Maj. J. Eric Grunke, a Harrier pilot with the MEU, said he and another AV-8B flier were preparing for an armed reconnaissance mission into Libya when word of the downed F-15E reached *Kearsarge* and they were told to launch the TRAP package. At about the same time, according to the *Raleigh News & Observer*, Marine Capt. Erik Kolle, an Osprey pilot, was enjoying a cup of coffee in the officers’ wardroom when his squadron executive officer yelled at him, using his call sign: “Brillo, get your butt in the ready room. We’ve had a jet go down.”



Marine Corps Capt. Erik Kolle, SSgt. David Porter, and Sgt. Daniel Howington are awarded the Air Medal with “V” device in January.

Grunke and his wingman took off first, clearing *Kearsarge*’s flight deck for two Ospreys and a pair of CH-53E Super Stallion helicopters. Each MV-22 carried 15 reconnaissance marines to help in the pilot rescue, and the helos took 35 marines each as a backup force. The Harriers were airborne first, and the Ospreys took off about 30 minutes later.

Bomb on the Deck

While the marines were activating their TRAP team, Air Force fighters were providing cover and radio contact for Harney, with a series of F-16s replacing his flight leader.

As the Ospreys flew toward Libya, Kolle said he could hear the Air Force pilots directing the downed airman where to run, using their targeting pods’ infrared sensors to scan the dark ground below. “There’s a ditch 50 yards to your east. Go there, now,” Kolle said he heard. “There’s a little bush 100 yards the other way. Go there, now.”

Grunke also recalled hearing the radio exchanges between Harney and the covering F-16s. Grunke heard Harney whispering that he could see people and vehicles approaching and could hear dogs barking and gunfire.

“That was really the first moment where I said, ‘This is really no longer training. That’s really a guy on the ground down there that is fearing for his life,’” Grunke subsequently told reporters. In a video released later by the Air Force and broadcast on CNN, Harney said: “When you find yourself alone and you’re isolated in a country where there’s hostiles, you are scared.”

Grunke said that while still inbound from *Kearsarge*, an F-16 “had just done a couple of gun attacks to deter the pursuers.” Shortly after that, the Marine pilot took over as on-scene commander.

Within minutes of being on station, Grunke said he used his targeting pod to spot the approaching vehicles and told Harney that he had two 500-pound bombs. “Do you need them?” The Air Force pilot replied “Yes, yes I do,” Grunke recalled. As he was maneuvering to drop a bomb, Harney came back on the radio and said: “Tell my wife I love her.” Grunke said he replied, “Don’t worry, I’m going to have a bomb on the deck in one minute.”

The Harrier pilot released a laser guided bomb and directed it to hit between the downed pilot and an approaching vehicle. When another vehicle continued moving toward Harney’s position, Grunke dropped another bomb in front of it as well. He also selected a possible landing site for the TRAP package coming behind him.

At that point, Grunke and his wingman were getting low on fuel and had to depart, but he instructed arriving F-16s to continue searching the area for intruders. It later was learned that the vehicles approaching Harney were rebel sympathizers friendly to the allies.

Meanwhile, Kolle and the lead Osprey, flown by Marine Maj. B. J. Debardeleben, were using the tilt-rotor’s 300-knot (345 mph) airspeed to close in on the area, arriving about 10 minutes after the Harriers left. Kolle

told the *News & Observer* that when he had flown Ospreys in Iraq, the primary concern was small-arms fire, which they could avoid by flying high. But because Qaddafi's air-defense radar, guns, and missiles were still a threat, they went in low, about 200 feet above ground.

The marines were talking to the Air Force pilots orbiting the scene, Kolle said, and "when we started to come in on short final, lead asked for sparkle," meaning a laser spot that they could see with their night vision goggles. Kolle said they also could see the strobe light attached to Harney's survival vest.

The lead Osprey, however, was right over Harney when the crew spotted him and had too much speed to land, Kolle said. But Kolle had been holding back to see if the leader would experience a "brown out," the blinding dust clouds that rotary wing aircraft can kick up when landing in the desert.

Fortuitously, Harney had found an irrigated field, a spot of green amidst the surrounding brown landscape. "Leave it to an Air Force pilot to find the one area that looked like a golf course," Kolle quipped. With the advantage of his trailing position, Kolle said he was able to land his Osprey around 50 yards from the downed pilot.

The recon marines in the back immediately ran out and deployed into tactical positions around the Osprey. In the Air Force-CNN video, Harney recalled, "As that back door opened, I see a group of young marine recon units jump out, and that was probably the best feeling I've ever felt in my entire life."

To make sure the heavily armed marines did not suspect any hostile action, Harney put his hands up in the air. "At that point, I don't care if they put me in cuffs. I don't care if they throw a bag over my head. I know I just want to be on that helicopter," he said.

Kolle had been on the ground for what seemed like seconds when his crew chief, Sgt. Daniel Howington, said over the intercom: "Hey, we got him." Kolle replied, "Roger that, we're getting out of here."

But Howington told him the recon marines were not all back on board yet. When the crew chief said the marines were on, Kolle said he told him to count, then count again, making sure they left no one behind. After just minutes on the ground, Kolle lifted off and joined his leader for the trip



USAF photo by SSgt. Connor Estes

USAF Maj. Kenneth Harney, pilot of Bofar 34, speaks to family and airmen at RAF Lakenheath, UK, about his experience as a downed pilot in Libya.

back to *Kearsarge*, about 47 minutes after they had left the ship some 100 miles away. The CH-53Es, with the reinforcements, never had to land.

No Pilot Error

Kolle said when they landed on *Kearsarge*, Harney was rushed down to the ship's medical suite for a checkup. When they talked the next day, Harney said the biggest thing to him was his radio. Kolle had nothing but praise for the Air Force pilots he worked with that night. "Talking to those guys was absolutely seamless." Despite the different services, there were no problems with terminology or tactics. "It was all professional."

For their part in the rescue, Kolle and his crew chiefs SSgt. David Potter and Howington received Air Medals, with the combat "V," this January. Grunke was named Marine Aviator of the Year in April 2011.

Although Stark did not follow SERE procedure, he was fortunate the Libyans who found him were anti-Qaddafi rebels. In the USAF-CNN video, Stark recalled that he saw two vehicles approaching and someone called out to him. "I hear the voice a little bit closer, 'American, come out, we are here to help,'" he related.

"I get up and put my hands up and start walking to the voice. ... Once I get there my impression is, 'OK, you

have to assume that they are the bad guys,' so I approach them thinking 'OK, I am caught. This is really not good. This is not where I want to be.' And they said, 'Hey, we are here to help.'"

Stark was driven to a nearby building, still very much on his guard, but when he walked into the room he got a round of applause, he said. Stark was taken to a Benghazi hotel and cared for until he was returned to US forces.

The official accident report found that the loss of controlled flight was due to the weight imbalance on the Strike Eagle's right side and the fact that Harney performed an approved combat maneuver—but at an untested altitude above 30,000 feet. The accident board said, "Ambiguous F-15E technical order guidance concerning maneuvering limitations with aircraft lateral asymmetry" contributed to the accident.

Although maneuvering with lateral imbalance was considered acceptable at moderate angles of attack, the flight simulator tests the board conducted showed that "an asymmetrically loaded F-15E flying at high altitude is prone to depart controlled flight and enter an unrecoverable spin" at that angle of attack.

The board said the pilot was not at fault, but added, "Evidence suggests that the [crew] was overconfident in the maneuvering capabilities of the F-15E. ■

Otto Kreisher is a Washington, D.C.-based military affairs reporter and longtime contributor to Air Force Magazine. His most recent article, "The Saga of Marine One," appeared in the February 2012 issue.

In Quality, USAF Leads the Pack

Of the services, USAF has long attracted the highest-quality recruits. That is true today and the gap is widening. In one basic measurement—percentage of a recruiting class with at least a high school diploma (Fig. 1), USAF always has scored at or near 100 percent. Service differences are most evident in comparisons of Armed Forces Qualification Test results (Fig. 2). AFQT is used to screen recruits and assign

them to specific military occupations. AFQT examines math and verbal skills; resulting percentage scores measure aptitude, relative to the US population aged 18 to 23. As can be seen, nearly 100 percent of USAF recruits supersede the aptitude of the general population. The other services do not come close to matching that performance.

Fig. 1: Percentage With High School Diploma

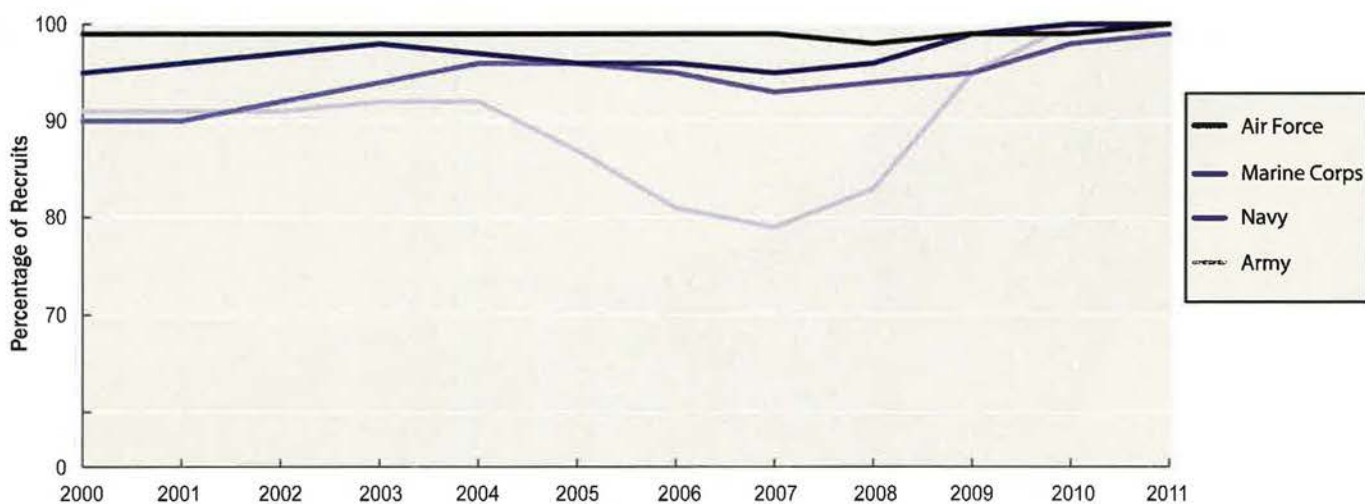
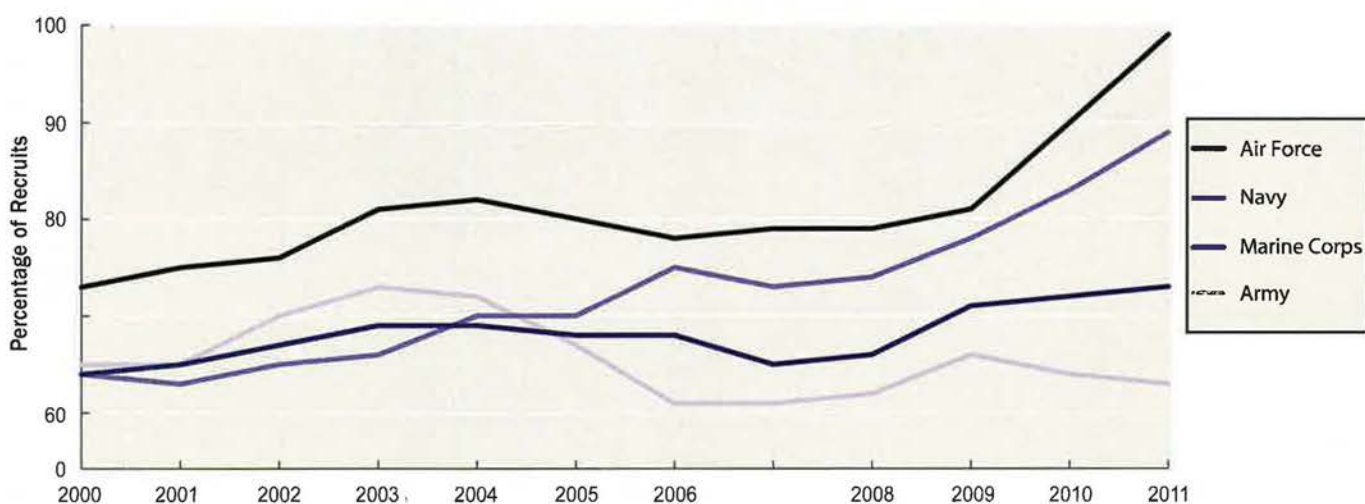


Fig. 2: Percentage With Above-the-Median AFQT Score



Source: "Costs of Military Pay and Benefits in the Defense Budget," Congressional Budget Office, Washington, D.C., November 2012. Based on Department of Defense and RAND Corp. documents.

Remote



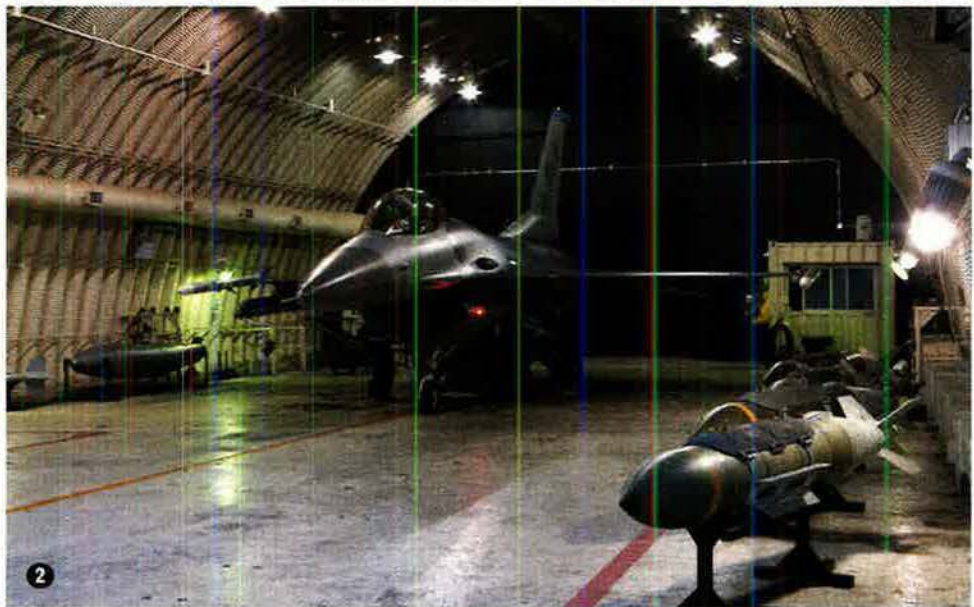
Kunsan F-16s form up after a training mission. Although air-to-ground attack capabilities are crucial, Kunsan pilots are also well-versed in air-to-air missions, as the AIM-120 AMRAAMs on the wingtips attest.

and Ready at *Kunsan*

Photography by Jim Haseltine

North Korea is but a short flight away.

The Korean War is—technically—still going on. With some newsworthy exceptions over the last 60 years, however, the cease-fire between North and South Korea has held. But North Korean leaders continue to amass troops, missiles, and artillery on its side of the demilitarized zone and frequently threaten violence in rants against the US and its southern neighbor. Recently, the rhetoric has centered on North Korea's nuclear weapons program and its progressing long-range missile capability. Kunsan Air Base—and its sister Osan Air Base—maintain a high state of readiness to help blunt and repel any potential North Korean assault on the South. Airmen at Kunsan practice constantly in nuclear-chemical-biological protective gear and at delivering ordnance. Given the threat of missile attack, fighters huddle in hardened aircraft shelters designed to withstand all but a direct hit. The F-16s at Kunsan are the youngest and most capable in USAF's inventory, available at an instant's notice if the war should resume at full volume. **1** During a preflight inspection, Capt. Nick Ilicena looks over an ALQ-184 electronic warfare pod on his F-16. **2** A 35th Fighter Squadron F-16 inside a hardened aircraft shelter. Several live GBU-31 JDAM bombs (at right) sit ready for loading in a hurry. **3** Two F-16 pilots offer the "Snakes" salute before they taxi off for a combat training sortie.





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11 Visiting F-16s of the 421st Expeditionary Fighter Squadron from Hill AFB, Utah, prepare to roll out to the Kunsan runway during a high-velocity arming and readying exercise of every available fighter for a no-notice launch. It results in an "Elephant Walk," a mass taxi after the breakneck preparation. The routine exercise ensures the wing can get off the ground quickly for combat in case of a surprise attack from the North, which would almost certainly mean tactical ballistic missiles targeting the base. *12* Capt. William Parks, 35th FS, conducts a preflight on a GBU-24 before a training mission. *13* South Korean soldiers guard the outer entrance to Kunsan Air Base. To differentiate it from the base, the Air Force refers to the local town as Gunsan. *14* F-16s of Osan's 51st Fighter Wing fly in formation with an 8th Fighter Wing jet (at left) from Kunsan.

111 Air Force pilots refer to the frequent murky weather in Korea as "the schmeeze" or "the miik bowl." It presents a tough flying challenge in a mission largely dedicated to precise strikes on moving targets. Here, 51st FW and 8th FW jets of 7th Air Force fly in formation. 121 Kunsan is a busy airfield with USAF and South Korean Air Force aircraft constantly on the move. Here (l-r), TSgt. Steven Lathem, SrA. Sean Greenwell, and SSgt. Jeremy Sebesta keep on their toes, monitoring activity during an afternoon launch. 131 SrA. Carlos Ortiz (l) and SrA. Dennis Morrison work on an F-16 hydraulics system. 141 F-16s from South Korea's 38th Fighter Group, also stationed at Kunsan, joined four USAF squadrons for the Elephant Walk. The host country's F-16s wear a lower-contrast paint scheme than the USAF jets.





111 Part of the 8th FW's mission statement is to "Take the Fight North." Both the 35th and the 80th Fighter Squadrons train to do this day and night. Here, F-16s prepare for a night sortie. 121 An 80th FS F-16 releases two inert GBU-12 500-pound laser guided bombs during a training mission. Prominent is the tailcode WP, for "Wolf Pack," a name with roots in the 1950s war. 131 35th FS Life Support Technician SSgt. Gerald Myles helps Lt. Col. Shamsher Mann, director of operations for the 35th, adjust his night vision goggles. 141 Two F-16s in aircraft shelters as night falls on the peninsula. 151 An F-16 pilot waits for the salute that will signal it's time to push the throttle forward and ascend into the night sky.

111 SrA. Bradley Denny (l) and SSgt. Jose Sanchez install practice GBU-12 laser guided bombs on an F-16's pylon. Practice versions of AIM-120 AMRAAM and AIM-9 Sidewinder air-to-air missiles have already been mounted. Prepping and arming this 80th FS aircraft takes place inside one of Kunsan's many hardened aircraft shelters. 121 A 35th FS F-16 pops defensive flares while flying an air-to-ground training mission. 131 8th Civil Engineer Squadron fire-fighters monitor flight activities on the runway at Kunsan. 141 SSgt. Jason Sallee (l) and SSgt. Shiloh Bell of the 8th Security Forces Squadron and their dogs patrol the perimeter of Kunsan. North Korea boasts that its war plans include infiltration, sabotage, and assassination at South Korea's bases. Miles of North Korean dug tunnels under the DMZ have been discovered over the decades since the cease-fire and the threat of enemy infiltration is very real.





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1| Two 55th FS F-16s await attention from maintenance crews during a nighttime shift. **2|** In this impressive lineup for the Elephant Walk are F-16s from five units: the 35th, 55th, 80th, and 421st FS from USAF and from South Korea's 38th FG. The aircraft can marshal with a fast response time—classified, of course. **3|** Capt. Jonathan Ballard from the 35th FS—nicknamed the “Pantons”—offers the squadron’s “Push It Up” salute. **4|** SSgt. Kevin Tasker (l) and SrA. Stephen Caseman prepare to load an AIM-9X missile on an F-16. The AIM-9X is the best short-range missile in USAF’s arsenal and is aimed using a helmet-mounted cueing system. It’s all part of keeping the tip of the spear razor-sharp. ■

THE VETS COURTS

By Anna Mulrine

ACROSS America, one in 10 criminals is a US military veteran, according to 2004 US Department of Justice statistics—the most recent year for which statistics are available. Because so many combat-experienced vets have a difficult re-entry into civilian society and get into trouble with the law in predictable ways, dozens of special courts are popping up around the country to deal with their unique problems. These courts help steer them back toward productive lives.

Between 2008 and 2012, in the wake of the decade-long wars in Iraq and Afghanistan, some 100 of these special courts were established, according to the Department of Veterans Affairs. A number of VA officials say they expect the number to double in the next year alone.

The goal is to “really project the VA’s treatment capacity into the criminal justice system,” said Sean Clark, the VA’s national coordinator for the Veterans Justice Outreach Program. That means “trying to catch veterans as early as possible in their ‘justice careers,’ if you will.”

Retired TSgt. Ronal R. Bassham volunteers with the Buffalo Veterans Treatment Court in New York, the first

of its kind in the nation, serving as a model for the others. A Vietnam vet, Bassham got into trouble in 1971, when he returned from near-constant combat.

“When you come back out of combat you have three things you get to deal with,” Bassham said. “One is anger, one is anxiety, and the worst one is guilt.” The guilt, he explained, is “about what you couldn’t do, what you wanted to do, what you did do—the people you left, or something that happened to them. It’s something that rides on your shoulders.”

Act Locally

He struggled with alcoholism on his return home and came close to getting into legal trouble. “You’re restless, you have anxiety, you need sleep and you have to work in the morning,” he said, admitting, “I smoothed the edge with alcohol.”

He brings that background to his volunteer work at the Buffalo court, working with fellow veterans wrestling with experiences similar to his own.

Typical crimes committed by combat vets include drunk driving, drug abuse, and even domestic violence—many the result of post-traumatic stress disorder (PTSD) from their wartime service. The court aims at providing treatment and discipline for those who have broken the law. Another goal is to prevent homelessness. Among male veterans, incarceration is the biggest predictor of homelessness, Clark said.

In the mid-1970s, Bassham went to work for General Motors and saw fellow Vietnam vets having trouble with work on the assembly line.

“Something drops or backfires and you’ve got a guy jumping off the line, crumpled on the floor,” thinking that he heard shots fired, Bassham explained. “And they want to blame him because he’s held up the line.”

Bassham gave up alcohol and started the first successful veterans group within the United Auto Workers. Today he works with younger troops who fought the wars in Iraq and Afghanistan as well.

“I think the veterans courts are long overdue,” he said. “Many courts have no idea they’re dealing with a raw person ... reacting to the situations they’ve seen.”

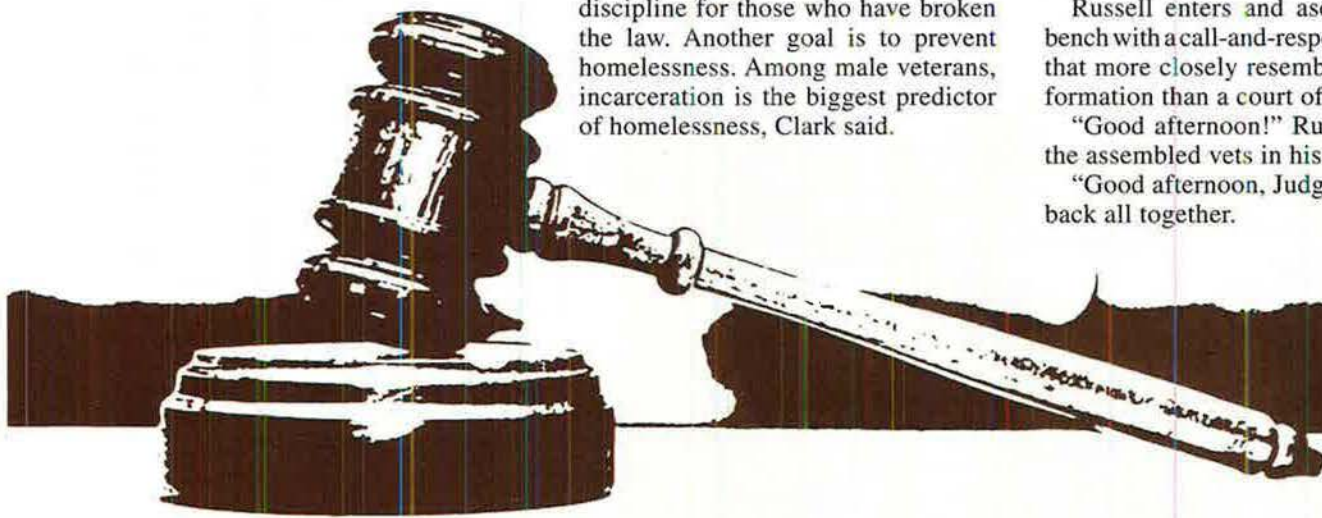
Though supported by the VA, veterans courts tend to be highly local enterprises, driven by individual judges and former military service members who see a need within their community.

In the heart of downtown Buffalo, former US troops charged with misdeeds stream one after another to the front of Judge Robert T. Russell Jr.’s courtroom. While their crimes vary, they have two things in common: They have served in the US military, and they have run afoul of the law.

Russell enters and ascends to the bench with a call-and-response greeting that more closely resembles an Army formation than a court of law.

“Good afternoon!” Russell says to the assembled vets in his courtroom.

“Good afternoon, Judge!” they yell back all together.



The first order of business is a sort of graduation ceremony for offending veterans who have completed a rigorous 12-month program including intensive counseling, mentoring from fellow vets, frequent random drug tests, and job training.

"When we go to serve our country, sometimes we don't realize that the sacrifice continues when we come home," says Philip Ippolito, a military veteran and team leader for the court's mentors. "And because of that sacrifice, we struggle."

Ippolito presents one of the graduates with a challenge coin, while Russell cautions the others before him "to be mindful" of—and here, the veteran mentors chant along with him—"the people, places, and things that put us at risk."

Russell reminds the graduates, too, that though their presence is no longer required in court, they are welcome back anytime to visit and socialize—whatever it takes to help them stay "clean and serene." He then comes off the bench to give them a hug.

"I'm going to stay straight," one graduate declares. "No more drinking, no more gambling." The unison reply from the others: "Good boy!"

From Travis County, Tex., to Tulsa, Okla., local police have reported the arrests of roughly 150 veterans per month.

In Buffalo, veterans' crimes tended to stick in Russell's mind, and that led him to create the court in January 2008.

"I started seeing vets from the most recent conflict—young people, 23 or 24," he noted. "They looked good physically—sharp, brush cut—but they were being arrested for different things."

One day, a veteran came into court on a drug offense.

"When I asked him where he lived, he said, 'Well, judge, I'm homeless.' That blew me away. How can a guy who served in Iraq come home and say, 'I'm homeless?' It was just unconscionable to me."

Russell and others believe the rates of incarceration among veterans tie closely to their experiences in war. A 2008 Rand Corp. study found that 11.2 percent of all US military service members who have returned from Iraq and Afghanistan report grappling with post-traumatic stress or major depression. Slightly less than half of these former troops said they have never sought treatment, either for fear it would harm their careers or because they have trouble navigating the military medical bureaucracy.

The Line to the Left

For this reason, when they walk into the courtroom today, veterans have immediate access to local VA officials—right at the front of the courtroom, on secure computers—who can refer them on the spot to services such as counseling, benefits, or job training.

"Many of the vets have claims that have been pending for years," reported Jack O'Connor, the coordinator of mentors for the Buffalo Veterans Treatment Court. "When you think about it, the vet [is] getting more done in his first day with the judge than he's gotten done with the VA in his whole life."

When word of these services spread, however, it did not sit well with some other vets, who wondered whether they would have to commit a crime to have access to care they'd been patiently seeking through the VA and Pentagon bureaucracy seemingly forever.

One afternoon, a former US troop came into the court, yelling. He wanted

to know why those who were arrested got immediate services, but as a law-abiding citizen, his claim had been languishing with the VA for years. His behavior led him to be "immediately taken to the ground," said O'Connor. "But we all heard what he said."

The VA's Clark said such complaints are common. "'Why do I have to get arrested?' You hear this from a lot of communities," he observed. "In a way, it's unfortunate that it's only after someone has been arrested and charged that they're targeted for services from so many different providers at the same time."

In response, the Buffalo Veterans Treatment Court established what they call their "line to the left." Anyone who wants help with a mentor of the court can come before court and meet with them, to get advice and help on their claim.

There are few things the veterans at the Buffalo court won't do to help those who need it. They drive their comrades to counseling appointments, sometimes hours away, and help them line up interviews and find housing.

Retired Lt. Col. James Germain is the director of Airman and Family Readiness at the 914th Airlift Wing at Niagara Falls Arpt./ARS, N.Y. He volunteers with the veterans treatment court in Buffalo and refers many of his clients in Niagara Falls to the court as well.

"A lot of these guys are vets who have been through a lot," Germain said. "In one sense, we as a country broke a lot of these guys, and we have an obligation to fix them, I think."

The vast majority who end up being referred to the court "have some sort of substance abuse problem which a lot of times is the symptom rather than the disease," he said.

A new breed of veterans courts meets the distinct needs of former troops in trouble with the law.

"The underlying theme seems to be that they have substance abuse problems or PTSD or some sort of underlying issue that they can't deal with without help," Germain explained. "You could send them to jail [but]... that's an opportunity to meet more bad people or learn more bad habits; hardly anybody gets better in jail."

The program is no casual undertaking, however. Veterans who take part in the court must agree to abstain from drinking for the duration of their time in the treatment court and submit to regular drug and alcohol testing as well.

"It's labor intensive. It's more than just doing time in jail for 90 days for your crime, but in the long run it's a bargain," said Germain. "For the ones who make it through the program, they see this as their last best chance to turn their life around."

Mentors for the veterans court often understand what those who come before the courts need because they have often fought mightily with it themselves.

Trueman Muhrer-Irwin was a private first class in the National Guard when he deployed to Iraq as part of the invasion. On security for an explosive ordnance disposal unit, Muhrer-Irwin was in the gun turret of his Humvee when it was hit by a roadside bomb. The assistant gunner in the passenger seat, a close buddy, was killed. Muhrer-Irwin spent four months in the hospital.

During his recovery, Muhrer-Irwin saw "a lot of veterans going through struggles, just dealing with the system. There are a lot of places where people need an advocate."

Justin Smith, for example. He deployed to Iraq as a private first class

during the height of the war, serving as a gunner on Route Irish, widely known at the time as the most dangerous road in the world.

"We did patrols almost every day," he recalled.

After he returned from war, Smith felt angry and lost. "I knew I had a problem: my temper. I never really sleep," he said.

Zero Recidivism, So Far

Then, he found himself homeless. "Luckily, it was summertime. It was warm outside, so I could wander."

In July 2011, Smith attempted to flee the police, resulting in a high-speed chase. He could have been charged with a felony, but instead was referred to veterans court. "That basically kind of saved me," he said. "It was a relief—I was thinking I was going to be in jail for quite some time."

Mentors helped Smith apply for VA disabilities.

"I didn't even know I was supposed to be receiving benefits for post-traumatic stress," he said. Now, he has a home, cares for his two young sons, and gets anger management counseling. "I can buy a house. I can do almost anything I want."

The court and the camaraderie it provides create "a pretty welcoming environment," Smith said, explaining that his mentor "told me about his symptoms, the stuff he dealt with. We went through the same stuff." That said, "I always kind of feel alone, anyways," he added.

It was Russell's hope to tap into the culture of the US military in an effort to help turn around the lives of those who come into his court.

"Is there something we can do to take advantage of the military culture?" he wondered. "To capture that experience of discipline, integrity, pride—that team relationship?"

The answer was to provide some structure for participants. However, the court is no boot camp. The key is to find mentors "who are sensitive enough not just to get in people's faces," Russell said. "Someone who's going to have a degree of empathy as a coach, as a motivator. It's not their role to be a disciplinarian. The court, if necessary, will do that."

The Buffalo court program has had to let mentors go in the past for being overbearing.

"I remember one said, 'Forget the VA—you need to get yourself together and be a man,'" O'Connor said. "What the hell kind of a statement is that?" In other cases, O'Connor said he lost mentors when he asked them to do too much. "I remember we had one guy spend the entire day at the VA, helping to get his benefits ironed out. You know what happened? He quit."

Today, the Buffalo mentor program, which includes 40 mentors, raises its own funds, separately from the court system, to buy challenge coins issued at graduation, gas money, and bus passes for participants to get to their court appearances.

The results, according to the mentors, speak for themselves. Of the 285 vets who have come through the court, roughly a dozen have opted out, choosing to go back to the traditional court system, because the vet program was too rigorous. Ninety have graduated from the program. None have been re-arrested.

"It's going to happen," predicted O'Connor, and when it does, he admits he will be slightly relieved. Right now, "there is disbelief that the program is this good."

Joseph Chudoba began working with the Buffalo veterans court three years ago, and he has seen the positive results the court can have on the lives of vets.

"It's unfortunate that it's only after someone has been arrested and charged that they're targeted for services from so many different providers at the same time."

As an Air Force veteran who works with domestic violence cases, he advocated for collaboration between the veterans court and the local sheriff's department and later became a team leader, helping to match up mentors with vets in the court system.

Chudoba increasingly sees the court system as vital to helping integrate veterans back into society when they return.

"The biggest issue I'm seeing for the soldiers in Afghanistan and Iraq is that when they come home, they see the sense of entitlement that us Americans have, versus people in Afghanistan who are fighting for their lives just to get a cup of water," said Chudoba.

"We'll complain that we didn't get enough fries at the drive-through window. Guys will look at me and say, 'I don't know why, Joe, but I'm so angry at this.'"

On many occasions, being a mentor means simply listening to the frustrations of returning troops, said Chudoba, often with former service members helping each other, regardless of branch. He recalled a marine whose case was assigned to the court.

"When he first came in, he just looked like hell had won him over. He was struggling with addiction which then led him into myriad familial issues; name something, this poor guy went through it," Chudoba said. "He was a marine, and you just don't ask for help as a marine. He sucked it up, until finally he said, 'I need help.'"

The man graduated from the veterans court program, "turned his life around, got off drugs," Chudoba said. "We have

this sense of pride in the military: You do your job, and you don't boast. But I just know I put him in the right hands of a great mentor, and it's such a validating and fantastic feeling, because a year later, this guy was completely different."

A Blank Check to Uncle Sam

Chudoba and others worry that ever more veterans will need help in the months and years to come. "A lot of brave young men and women are going to be coming back from war," he said, "and what we're seeing now is just the tip of the iceberg. Trust me."

Yet O'Connor and others acknowledge a wider undercurrent of criticism, too, along the lines of: Why do veterans deserve special treatment?

In the beginning, "some people didn't like the idea of the vets courts," he said. "They thought we were doing way too much for vets. The word 'boutique' was thrown around a lot."

The rapid proliferation of veterans courts raises some legal questions as well, noted Michael C. H. McDaniel, a retired brigadier general in the Michigan National Guard and associate professor at Thomas M. Cooley Law School in Lansing, Mich.

"There are a couple of really interesting issues from a public policy standpoint," McDaniel said. "When you get the judicial branch involved, it says 'Equal protection under the law.'"

He said this means there has to be "some limits on veterans' treatment courts."

For example, should veterans treatment courts be limited only to ser-

vice members who have committed misdemeanors, or should they be available to admitted felons as well? And if there is some assumption that combat stress causes former troops to commit crimes, should there then be a requirement that those who come before the special courts have served in Afghanistan, Iraq, or Vietnam?

On this point, courts across the country differ. In Michigan, vets courts are only open to those who have served on Active Duty under certain circumstances. Russell and the mentors of the Buffalo court feel differently.

"Combat or no combat doesn't affect us if you've signed that line that says, 'Here's a blank check to Uncle Sam, payable up to and including your life,'" said Frank Grillo, a vet who served three combat tours in Iraq in what he called "the worst possible" areas.

"What if you're support to combat? What if you're the person who's caretaker to bodies when they come home? What if I'm in a training exercise before I'm deployed and get injured?" asked Russell. Such splitting hairs could mean investigation of where the vet served, how close to the front, what kind of combat, he said.

"What we do know is that they signed an oath to defend their country."

That, said O'Connor, "is the vets' mentality," both in the Buffalo court and in the rapidly growing number of veterans courts throughout the country: a combination of "leave no soldier behind" and "there, but for the grace of God, go I." ■

Anna Mulrine, a staff writer for the Christian Science Monitor, reports frequently from Iraq and Afghanistan. Her last article for Air Force Magazine, "An Air Force War on Sexual Assault," appeared in the January 2012 issue.



AIR FORCE COL. GAIL S. HALVORSEN tried to avoid becoming commander of Berlin's Tempelhof Airport when the job came open in 1970. He knew the occupant of this position was also USAF's representative to West Berlin and had a heavy schedule of public and official appearances. Halvorsen did not think he was the best choice for that sort of job, as he had spent the last 20 years as an engineer working on cutting-edge aircraft and space systems. Besides, he was a Mormon and a teetotaler—and in Europe alcohol played an important part of most banquets and government parties.

But service leadership thought Halvorsen was just the man for Berlin. After

all, he was still beloved there as “der Rosinenbomber,” or “the Candy Bomber,” the Berlin Airlift pilot who had dropped chocolate-laden parachutes across the city in its hour of need. During the lean months of the 1948-1949 Soviet-imposed blockade those Hershey bars and sticks of gum were treasures that floated down from the sky. Berlin children that he'd missed wrote him begging for airdrops near their homes.

During the airlift a nine-year-old named Peter Zimmerman had sent him letter after letter, many illustrated with a drawing of the air map to his house. Still, Halvorsen was unable to find him. “You are a pilot? I gave you a map. How did you guys win the war anyway?” the boy finally wrote.

A girl named Mercedes Simon wrote that she lived near Tempelhof and that he should drop the candy when he saw her white chickens. Neither Halvorsen nor anyone else in his squadron spotted the white poultry. Eventually they sent both Peter and Mercedes some goodies through the mail.

So there Halvorsen was, in the fall of 1972, back in Berlin after 23 years, when he received an invitation to yet another dinner out. His host had been insistent. She'd been after him for 18 months to come to her home. Bring your two youngest sons, she said. I have two boys about their age. Eventually Halvorsen canceled an embassy appearance, put his boys in their Sunday best, and at the appointed hour arrived at

A crowd of children watch a C-54, loaded with relief supplies for the beleaguered people of Berlin, as it comes in to land at Tempelhof Airport. If the wings wiggled, the children knew the pilot was Gail Halvorsen, the Candy Bomber.



HALVORSEN

Candy Bomber, engineer, unofficial ambassador.

By Peter Grier



the address, 15 Hahnelstrasse, a street not far from his office.

A pleasant young couple greeted them. The woman ushered them up to their apartment without introductions. In their front room, she reached inside an old-fashioned china cabinet, picked a letter from among the figurines, and held it out to Halvorsen. Her hand was shaking. Halvorsen opened the envelope, slipped out a note, and read. It was dated Nov. 4, 1948. "Meine liebe Mercedes," it began.

It was the letter Halvorsen himself had sent her decades ago. "You silly pilot, I am Mercedes," said his host. "If you take five steps over to the window you will see for yourself where the white chickens were."

In the end it turned out his superiors had been correct. The bonds Halvorsen had forged with Berlin's people during the airlift were lasting and profound. His assignment as Tempelhof commander, rather than being something to dread, turned out to be as moving a human experience as he could imagine.

"As I look back the four years in Berlin were a lot better in my life than if I'd stayed in the space program," Halvorsen recalls today.

First Lt. Gail S. Halvorsen became famous for his humanitarian actions during the Berlin Blockade, a tense standoff between the West and the Soviet Union that marked the beginning of the Cold War. He began by persuading navigator

TSgt. Herschel C. Elkins to stuff candy out the flare chute of their C-54 transport on approach to Tempelhof. In the end his Operation Little Vittles delivered some 21 tons of candy and other goodies to Berlin's children and helped win thousands upon thousands of German hearts and minds to the cause of the West. But this was only the first act of his story.

Halvorsen stayed in the service, got an education, rose through the ranks, and helped usher the Air Force into the satellite age. Then he returned to Berlin, serving as a tireless advocate for strong German-American relations at a crucial time for the trans-Atlantic alliance. In his later years he has traveled the nation and the world, often in a restored





Halvorsen holds up a "candy bomb" attached to an improvised parachute.

C-54, re-enacting his candy bombing while promoting freedom, charity, and reconciliation to audiences of all ages.

And as he himself says, all of that stems from a moment—the briefest instance of time—when he decided to part with two sticks of gum. "That is what I tell children all the time: Little decisions put your foot on the path to wherever you are going to end up, good and bad," says Halvorsen.

The Soviet blockade of West Berlin was the moment when the Cold War became real for many in Western Europe. Though the crisis developed over a period of months, it began in earnest on June 24, 1948, when the USSR stopped all surface transportation into the Allied-controlled sector of the German capital. At the time, Berlin was broken into zones run by the US and its Western Allies and the Soviets. Stalin hoped to push the West out and seize control of the city. The air bridge to supply food and fuel to the increasingly desperate population of Berlin began on June 26.

A Chance Meeting

At the time Halvorsen was based at Brookley Air Force Base in Mobile, Ala. He was a Utah farm boy who'd won a US flight school scholarship, detoured through RAF fighter training, then ended up a transport pilot in the Army Air Corps. He'd spent World War II ferrying cargo and airplanes down through South American bases, across to Ascension Island, and occasionally to Great Britain. Now he was angling to get out of uniform. He'd

been eyeing franchise opportunities with the Western Auto company. "I wanted to start one of those stores," he said.

Fate intervened. The new Air Force suddenly needed C-54 pilots for West Germany, and the single Halvorsen volunteered, taking the spot of a friend named Capt. Peter Sowa who was married with two kids. Within days he found himself standing in the rain at Rhein-Main AB, West Germany, holding his duffel bag and marveling at the sense of purpose reflected by the roar of airplanes and men. He bedded down in an old barn next to the runway. The next morning he was on his way to West Berlin, flying a C-54 with 138 bags of flour.

The early days of the airlift were "a cowboy operation," Halvorsen says. They'd

load their airplanes with 20,000 pounds of whatever cargo was at hand—mostly coal, as opposed to food. After landing in Berlin at Tempelhof pilots would wander into the terminal for a snack while their cargo was unloaded. It was all somewhat disorganized.

The C-54s themselves performed well. The military variant of the DC-4 was a stable platform, flew well in bad weather, and was easy to load. But as the airlift tightened up, with regular flight plans, choreographed ground operations, and even mobile snack bars to keep pilots in their seats, the job became harder. "In my memory of it the most difficult part was the separation between aircraft and safety of flight. ... When we got [ground] radar my blood pressure went down 20 points," Halvorsen says. The final approach to Tempelhof was also a problem. Aircraft had to maneuver around a five-story apartment building before roaring over a grassy strip and then the airfield fence. The open strip was often filled with groups of children watching the airplanes land.

Halvorsen had brought along his Revere 8 mm movie camera to record his Berlin adventures during the airlift. But the pace was punishing and the schedule tight. He had a difficult time figuring out how he was going to break away long enough to film the Brandenburg Gate, the Reichstag, and other famous city sights. Eventually, one fellow pilot agreed to carry Halvorsen as a passenger in and out. Another provided



The Candy Bomber is surrounded by dozens of German children, thanking him for dropping sweets to them.



German children sent "Uncle Wiggly Wings" thousands of letters, thanking him and asking him to drop candy near their homes. At one point, Halvorsen needed two full-time secretaries to help him answer the torrent of mail.

the name of a sergeant with a jeep who'd provide a quick Berlin tour.

On July 19 the plan came together. Halvorsen figured that by skipping sleep he could make it to Berlin then return for another 16-hour flying shift. When he landed at Tempelhof, he called his ride, who said he couldn't be there for another hour. Halvorsen decided he'd go over and film C-54s popping over the apartment building and hitting the Tempelhof planked steel runway. It took him about 20 minutes to walk the distance along the perimeter fence. When he got there he filmed a few airplanes and noticed a group of 30 children gathered in the open strip. They were watching the American pilot with the camera in silence. All seemed between the ages of about eight and 14. They were boys and girls, dressed in shoddy clothes.

In halting German, he asked how they were. They giggled and responded in a mix of German and schoolroom English. They were very interested in the mechanics of the airlift and asked what each airplane carried and how much. They also chattered about Cold War life in East Germany—relatives in the Soviet zone who were forbidden to read certain things or go certain places. They didn't want to live like that. Halvorsen did not know what to make of this. For all he knew, they could have once been members of the Hitler Youth. Then he remembered: He had to make it back to the terminal for his ride. He told the children he was sorry, but had to go, and turned for the long walk back.

He was 50 yards away when it struck him—none of the children had asked him for anything. In his past experiences, crowds of kids always laughed and begged for a handout or a treat. He felt in his

pocket. All he had were two sticks of Wrigley's Doublemint gum. "This was what Hal Halvorsen would later call his 'moment of truth,' the continental divide of his long life," writes author Andrei Cherny in his history of the Berlin Airlift, *The Candy Bombers*.

Catching On

Halvorsen turned back toward the fence. He didn't know if the children would fight over his small offering, but he broke the gum into bits and handed them out through the fence. The children carefully tore the gum and foil into even smaller pieces, enough for all. Just then another C-54 roared overhead. That gave Halvorsen an idea—on the spur of the moment he promised that he'd drop them more candy when he flew over. They'd know it was him because he'd wiggle his wings, he said.

"Luckily, the driver was still waiting. I was very late," wrote Halvorsen in his autobiography.

Halvorsen was good to his word. The next day he and two crew members bought their full allowance of sweets at the Rhein-Main base exchange. Halvorsen tied up handkerchiefs for parachutes to slow the candy's descent. The pilot wiggled the C-54's wings and passed over the apartment building. Navigator Elkins stuffed the goods out the emergency flare chute in front of the left wing.

It worked. As they taxied in, they could see the children celebrating. Over the next several weeks, the aircrew pooled resources and dropped as much candy as they could. But they knew they were breaking many, many regulations with their behavior and were likely to get shipped back home if caught. Then Halvorsen

got a nasty shock. One day he ran into Tempelhof base operations to check on weather. On a table he spotted a pile of mail, addressed (in German) to "Uncle Wiggly Wings."

They quit—for a while. But the crowd of kids at the end of the runway grew bigger. Eventually they tried another delivery. Just one more, they told themselves. The next day Halvorsen's commander summoned him. The colonel slapped a copy of the *Frankfurter Zeitung* on the table. "You almost hit a reporter in the head with a candy bar in Berlin yesterday," he said. "He's spread the story all over Europe. The general called me with congratulations and I didn't know anything about it. Why didn't you tell me?"

The US had quickly recognized the publicity value of what came to be called Operation Little Vittles. Commanders charged Halvorsen with organizing a larger airdrop. Eventually dozens of pilots were involved. Halvorsen made a tour Stateside, where he appeared on radio and TV to promote the project to the American people. Candy manufacturers donated their wares by the boxcar load. Residents of Chicopee, Mass.—location of Westover Air Force Base, home station for many of the aircraft dispatched to the Berlin lift—organized to tie up parachutes. The town's children did much of the work on weekends and after school.

Halvorsen's tour ended in mid-January 1949. He returned to a hero's welcome. He spoke at civic groups across the country and even represented the Air Force at the Academy Awards. The National Geographic Society gave him a new 16 mm camera. And on May 12, 1949, the Soviet Union lifted the blockade. The Berlin Airlift's ability to deliver food and fuel—13,000 tons on the maximum effort "Easter Parade" day of April 16, 1949—had triumphed.

A month after returning home, Halvorsen proposed to his longtime long-distance sweetheart, Alta Jolley. His celebrity was such that newspapers across the country carried their engagement photo. With new responsibilities to consider, he thought once again about leaving the service. But the Air Force had other ideas. "They offered me a permanent commission, full pay, and said they'd send me to university. I said, 'That's great!'" recalls Halvorsen.



Left: Halvorsen in 1989 leans out of the window of a C-54 on static display at Tempelhof. After coming home and earning two engineering degrees, the Candy Bomber went back to Berlin to take charge of the air base for USAF. Below: A Halvorsen Loader lifts relief supplies for Afghans onto a KC-10. The massive 25,000-pound loader was named in honor of Halvorsen in 2001.



USAF photo by Paul Zedach

Eventually the one-time beet farmer earned two aeronautical engineering degrees at the University of Florida. Afterward, he and Alta were posted to Wright Air Development Center in Dayton, Ohio.

His first assignment was airlift related. The experience of carrying tons of loose cargo in military aircraft had taught pilots that dust got into everything, especially control lines. The clogs could be fatal if left unaddressed. That was why the C-54s had often flown with open hatches: The airflow sucked out potentially dangerous extraneous material.

"They hoped I would design a large cargo-carrying capability and control systems that would take ample doses of flour and coal dust," remembers Halvorsen.

Eventually Halvorsen segued into the Air Force space program. He worked on a series of pioneering space launch vehicles, principally the Titan III. He was assigned to the Pentagon for a job dealing with manned, maneuverable, and reusable spacecraft. By 1969 he made colonel and became head of a satellite-tracking facility at Vandenberg AFB, Calif. He and Alta built a house and kept horses for their children. He was thinking about retiring from the military. Then his past caught up with him.

In July 1969, he got a call from the Pentagon. "Are you Uncle Wiggly Wings?" asked the voice on the other end of the line. It turned out many of the children who had caught his parachutes were now parents themselves and wanted their kids to see what they'd gone through. Some had contacted the Air Force officer in charge of Tempelhof, Col. Clark A. Tate, and

requested a re-enactment of the airlift at the airport's annual open house.

Halvorsen was happy to oblige. He sent ahead a list of names from the German children's letters he'd kept, and in Berlin he flew over the airport, dropping candy bombs, once again. He finished the visit with a dinner at Tate's magnificent German-supplied house. "I'm the security blanket for the Germans—I'm out every night at events of some kind," Tate told him. "Sure glad I haven't got your job," said Halvorsen.

Back to Berlin

Perhaps he should have knocked on wood afterward. The Air Force thought the Berlin airdrop had been a great success, Tate became ill, and by 1970 Halvorsen was back in the mansion, this time as a resident.

The start was rocky. At his first big appearance representing the US he had to publicly wangle some orange juice so he could toast the President of France with something other than champagne. But the city's close-knit international community proved welcoming and highly tolerant of his abstinence from alcohol. Berliners, particularly those who remembered the airlift, indeed embraced him. "Almost everyone who had caught a parachute wanted us to come to dinner," Halvorsen wrote in his memoir.

In the end Halvorsen and his family stayed longer than expected. When they left in 1974 he had been at Tempelhof for four years and had served longer than any post-World War II US base commander.

Some of the Berlin "kids" he'd connected with became ardent proponents of improved German-American relations. Mercedes and husband Peter Wild became close friends of the Halvorsen family and helped found a US-German student exchange program.

Halvorsen has returned to Berlin for airlift-related commemorations many times since then. In 1989 he led a group of 200 US airlift veterans for a Tempelhof event only weeks before the Berlin Wall fell. A decade later he helped fly a restored C-54 from Westover to Berlin for the 50th anniversary airlift celebration.

Now in his 90s, the Candy Bomber has continued to fly the C-54 as second-in-command and talk about the Berlin Airlift and its impact, at events from elementary schools to Air Force airlift training centers. In 2001 the Air Force's 25,000-pound loader was named the Halvorsen Loader in his honor.

"Halvorsen's kindness provides the 'why' to what we do day in and day out as an airlift wing," Col. Erik W. Hansen, then 437th Airlift Wing commander, said at a June 2012 JB Charleston, S.C., ceremony honoring the Candy Bomber. "His inspiration played a major role in saving Berlin and proved the concept of airlift as a strategic tool during the Cold War years and beyond." ■

Peter Grier, a Washington, D.C., editor for the Christian Science Monitor, is a longtime contributor to Air Force Magazine. His most recent article, "NATO's Wobble" appeared in February.

Gunners



Virtually from the beginning, military airplanes have had gunners—waist gunners, tail gunners, nose gunners, and more. The position reached its apogee in World War II, when USAAF fielded 297,000 of them to ride shotgun on heavy bombers. The photo above, from March 1944, depicts one of the Air Force's most famous gunners, Sgt. Maynard H. "Snuffy" Smith, who earned the Medal of Honor for heroism on a May 1943 B-17 mission over France. He saved the lives of six wounded crew members, put out a fire raging through the bomber, and used .50 calibre machine guns to drive off wave after wave of attacking German fighters. Inset: Gunners remained important in later conflicts. Here, Korean War-era B-26 Invader gunner Sgt. C. W. Ledbetter sports an A-2 jacket emblazoned with bomb images signifying the number of missions he has flown.

DOD

Senior Leadership

KEY:

- ASD** Assistant Secretary of Defense
- ATSD** Assistant to the Secretary of Defense
- DASD** Deputy Assistant Secretary of Defense
- DUSD** Deputy Undersecretary of Defense
- PDUSD** Principal Deputy Undersecretary of Defense
- USD** Undersecretary of Defense

Compiled by June Lee, Editorial Associate

(As of Feb. 14, 2013)



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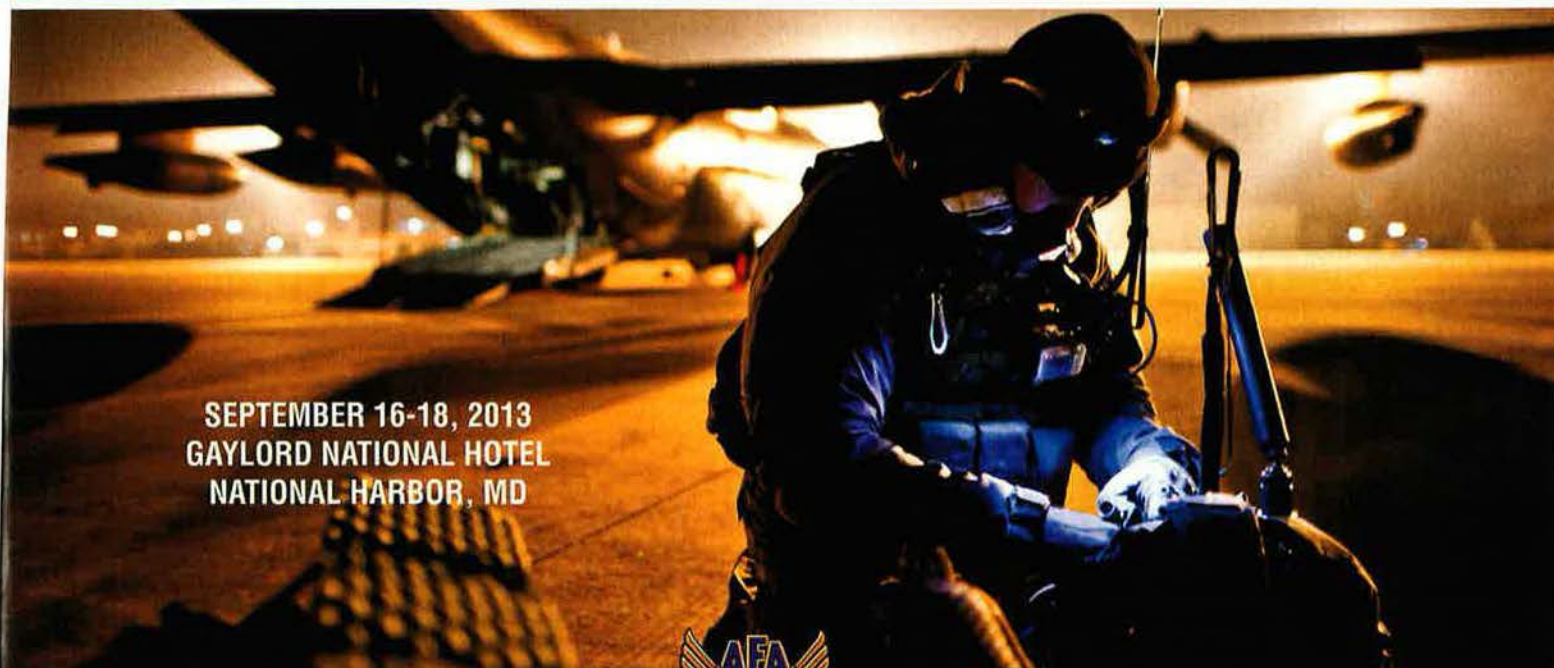


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SAC'S HALF CENTURY

By John T. Correll

Three B-52s practice a minimum interval takeoff as part of a SAC operational readiness inspection. Strategic Air Command reduced bomber takeoff intervals to 12 seconds and tanker takeoff intervals to 15 seconds.



USAF photo by SSgt. Phil Schmitt



Gen. Curtis LeMay at Offutt AFB, Neb., in 1953 as SAC commander. LeMay rebuilt the command from a disorganized lackadaisical collection of airmen into a lean, tight, high-performing, and war-capable machine.



Gen. Thomas Power, LeMay's deputy, replaced him as head of SAC. Power didn't inspire the depth of admiration from airmen that LeMay did, but he got the job done.

There has been nothing like it, before or since.

There was a Strategic Air Command before Curtis LeMay, but it didn't amount to much. It was organized at Bolling Field, Md., in March 1946, then moved to Andrews AFB, Md., in October of that year, with an assigned mission "to conduct long-range offensive operations in any part of the world."

The first commander was Gen. George C. Kenney, who led Allied air forces in the Southwest Pacific in World War II, but he was often absent pursuing other interests. He was the US military representative to the United Nations and a likely choice to head the UN air force that was anticipated at the time. Kenney left the running of SAC to his deputies, one of whom declared that, "No major strategic threat or requirement now exists in the opinion of our country's best strategists nor will such a requirement exist for the next three to five years."

SAC was relaxed, attuned to the postwar demobilization and drawdown. There was no sense of urgency about the mission. Most of the command's

aircraft were parked, unable to fly, and few of the crews were trained. At the end of 1947, only two of the 11 groups were ready to conduct operations. To reduce military field activities around Washington, D.C., SAC was relocated in 1948 to Offutt AFB, Neb., just south of Omaha. The new headquarters was in the former Martin-Nebraska plant where B-26 and B-29 bombers were once built.

When Gen. Hoyt S. Vandenberg became Air Force Chief of Staff in April 1948, he decided SAC needed stronger leadership. He shuffled Kenney off to Air University and sent for Lt. Gen. Curtis E. LeMay, the best operational commander in the force.

LeMay arrived at SAC in October and immediately began bringing in people who had served with him before and who shared his outlook and methods. His first change was to make Maj. Gen. Thomas S. Power the deputy commander. "He was sort of an autocratic bastard, but he was the best wing commander I had on Guam," LeMay said. "He got things done."

LeMay soon discovered the SAC war plan existed in name only. It had no specifics and did not designate targets or identify units tasked to perform specific actions. The bombing practice scores looked good, but that was because the crews were dropping their bombs from 12,000 to 15,000 feet instead of from combat altitudes. The targets were easy to find, often marked with reflectors. Some group commanders were not checked out on their airplanes.

"It was perfectly apparent to me that while we didn't have very much capability, everybody thought they were doing fine," LeMay said. "The first thing to do was convince them otherwise. So I ran a maximum effort mission against Dayton, Ohio—a realistic combat mission, at combat altitudes, for every airplane in SAC that we could get in the air. We had them all up, and not one airplane, not one crew, completed the mission as briefed: aborts all over the place, equipment that wouldn't work, the crews that wouldn't work, nothing worked."

Starting from there, LeMay rebuilt SAC into the most powerful military force in history. It lasted for almost half a century before deactivation in 1992 at the end of the Cold War. There has been nothing like it since.

The Way of LeMay

LeMay used two main tools to recreate SAC his way: standardization and evaluation. This involved demanding standards, establishment of best practices, and constant measurement.

At any moment, an operational readiness inspection (ORI) team might land without notice at a SAC base and require the wing commander to execute his war plan. If the wing failed, the commander could lose his job.

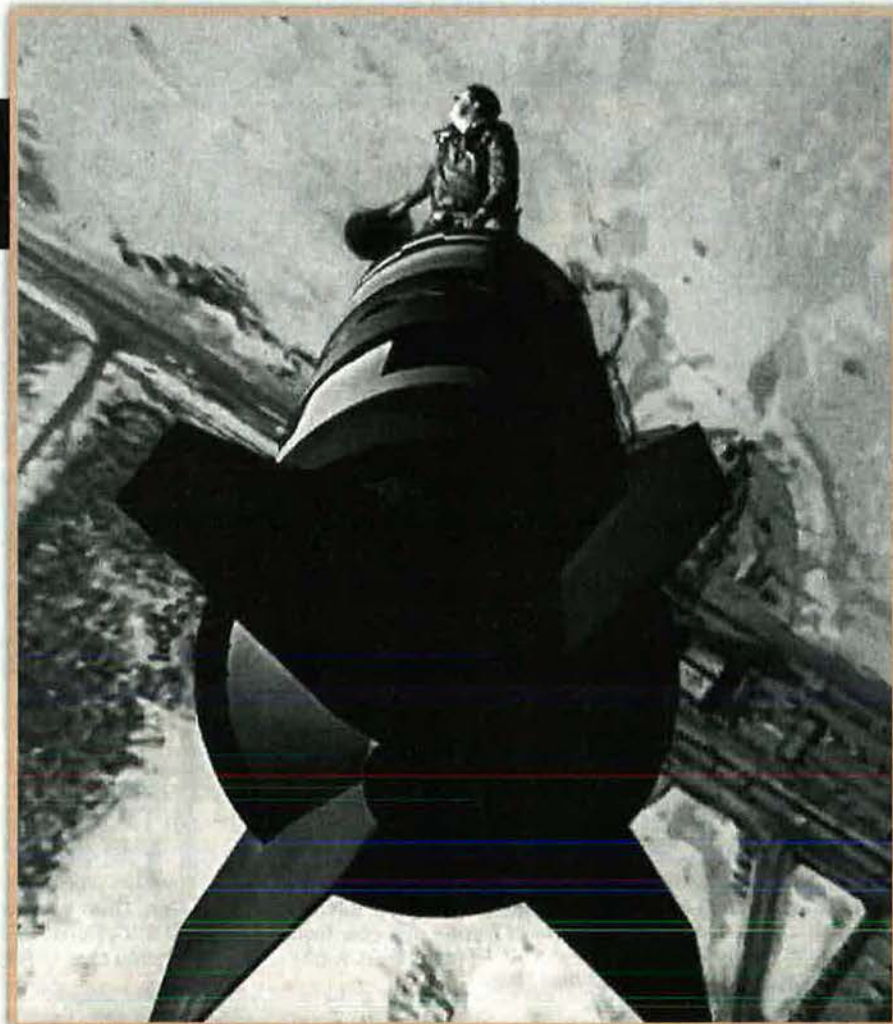
When LeMay took over, SAC's accident rate was terrible—65 major accidents per 100,000 flying hours. He believed that many of these accidents were caused by failure to use the checklist, especially by pilots who thought they did not need a checklist. Fearing LeMay's wrath in the event of a mishap in which procedures had not been followed, aircrews went back to their checklists. Within two years, SAC had the lowest accident rate in the Air Force.

The SAC rating system had points for everything. "You'd set a value on every item [that] was included in the whole scheme and the total of points gave you your score," LeMay said. "The system was elastic; the bracket of points could go up or down.

"Let's say that we are particularly bad in supply at the present moment. So we're going to weight supply a little heavier in the sum total. We assign higher numbers to supply, and automatically people work on that. Then we examine the master scoring system, where all the outfits are scored, and one outfit can be compared with another.

"Inside the organization, the commander examines his own score and he can observe that in supply—or personnel or operations—he made a lousy showing. So he swoops down into that area and fixes it. If not—new commander."

Evaluation was paired with competition, another of LeMay's favorite tools. He put great store in the annual bombing competition and rewarded those who



In "Dr. Strangelove," aircraft commander Maj. T. J. "King" Kong (Slim Pickens) rides a nuclear bomb to its detonation point over the Soviet Union.

did well. By 1950, bombing scores had improved by 500 percent.

To the delight of SAC and the outrage of the rest of the Air Force, LeMay obtained approval in 1949 to give his aircrews spot promotions. These came out of the overall Air Force grade authorization, which was capped by Congress, so each spot promotion meant one less somewhere else.

"Each quarter, wing commanders would determine the rank ordering of their crews. Based on bomb scores, testing, and in-flight evaluations—among other factors—commanders could list their crews from top to bottom," said Col. Melvin G. Deaile, a former B-52 commander who wrote his doctoral dissertation on the SAC organizational culture. "The top 15 percent of the crews for any given wing were eligible for spot promotions. ... If a navigator broke his leg, the crew went nonmission ready and everyone on the crew lost their spot promotion." Spot promotions peaked at more than 900 in 1959. The program was abolished in 1965.

LeMay worked hard to get better housing for families at his bases and to


put junior airmen in two-man dormitory rooms instead of open bay barracks. "Lousy food" was on the agenda, too. He got training for the cooks and warned them that the food had better improve, or else. "Or else might mean a sudden and unhappy change of station," LeMay explained.

A promotion in 1951 made LeMay the youngest four-star general in American service since Ulysses S. Grant. His tour at SAC was the longest tour ever for any general at a US major command, ending in July 1957 with his assignment as Air Force vice chief of staff.

SAC's slogan, "Peace Is Our Profession," is one of the most famous in military history. However, there was another one which became part of the continuing lore of the command: "To err is human; to forgive is not SAC policy."

SACumcized

Under LeMay's leadership, SAC became an all-jet global strike force. The B-52 bomber entered service in 1955, and the KC-135 tanker in 1957. With aerial refueling, SAC bombers could reach targets anywhere in the world.



SAC had its own fighters for a while but finally decided there was no true role for them in the command and transferred the last of them to Tactical Air Command in 1957. However, long-range reconnaissance aircraft remained in SAC and continued flying for many years.

LeMay's focus was on the strategic nuclear mission. He had little time for anything else. He reluctantly provided bombers for the Korean War, but they were not his best. "When we got orders to send them over there, we picked the low priority outfits, the lowest ones on the totem pole," he said. "I did not want to destroy the capability that we had built up for a strategic war if we had to go to war. We sent the outfits that were not fully manned and not combat ready for the overall strategic war plan."

The National Security Council memorandum 162/2 in 1953 said that "Airpower and nuclear weapons should provide the nation's primary means of defense." Almost half of the defense budget went to the Air Force, with the nuclear forces—SAC and Air Defense Command—designated "Major Force Program 1."

The Air Force's first doctrine manual, published in 1953, emphasized strategic nuclear operations to the exclusion of almost everything else. So strong was the focus on SAC that the Korean War was ignored in the writing of doctrine. The 1959 revision of doctrine said that "the best preparation for limited war is proper preparation for general war."

The term "SACumcized" came into popular usage, with different meanings for different people. Even today, a cursory scan of the Internet turns up numerous SAC veterans proud of having been SACumcized—or thoroughly indoctrinated into an elite professional fraternity. To others, it meant SAC's domination of the budget, the spotlight, and much else. In the early 1960s, according to a study by Col. (later Maj. Gen.) R. Mike Worden, bomber generals held more than half of all the four-star positions in the Air Force.

When LeMay became Chief of Staff in 1961, he appointed SAC bomber Gen. Walter C. Sweeney Jr. to be commander of Tactical Air Command. His task, according to an article in *US News and World Report*, was "to do

for TAC what LeMay did for SAC." Sweeney introduced a management system in which wings got monthly ratings with scores for operational and administrative activities. It was not well-received by the fighter community, which prized decentralization, innovation, and individual initiative more than standardization and top-down quality control.

LeMay and Power were initially distrustful of missiles, regarding them as distantly second in importance to bombers. The ICBM was an uneasy fit with the bomber culture of SAC. "Missiles—pilotless strategic bombers—represented a subculture with a different operating mentality than the pilots who ran SAC," said B-52 pilot Deaile. "Bomber pilots dominated SAC culture and would share

"Fail-Safe," "Dr. Strangelove," and SAC

Two 1964 movies rose to cult status by speculation about accidental nuclear war. Both "Fail-Safe" and "Dr. Strangelove" depicted the system as breaking down and SAC bombers proceeding beyond their fail-safe points to deliver hydrogen bombs on the Soviet Union. If the plots seemed similar, it was because both were based on a British novel, *Red Alert*, published in 1958.

"Fail-Safe" was adapted from a 1962 American best-seller that tracked with *Red Alert* in most respects but which pretended to describe the Air Force's actual fail-safe system. SAC "Vindicator" bombers launch on warning of a Soviet attack, which turns out to be mistaken. A recall order is issued, but due to technical malfunction (a bad condenser) the attack code is received instead. As a sacrifice offered to avert Soviet retaliation when the bomb falls, the US President orders an American bomber to destroy New York. The movie followed the story in the book. Anti-military reviewers of the day saw great merit in it.

"Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb"—filmed as a dark comedy with Peter Sellers playing both President Muffley and the crazed nuclear advisor, Dr. Strangelove—eclipsed "Fail-Safe" in popularity and impact. A B-52 commander in the field, USAF Brig. Gen. Jack D. Ripper (Sterling Hayden), sends his bombers to attack the Soviet Union. At the Pentagon, Air Force Chief Gen. Buck Turgidson (George C. Scott) backs Ripper. President Muffley orders the SAC base stormed to obtain the recall code, but it is too late. The bombing mechanism on the B-52 is damaged by anti-aircraft fire but the aircraft commander (Slim Pickens), wearing his cowboy hat, straddles the bomb and rides it down to the target, rodeo style.

The movies had it exactly backward. The effect of a technical malfunction would have been to cancel the mission, not order it to completion by mistake. In his book, *Design for Survival*, Gen. Thomas S. Power explained how the system really worked.

"If a warning of an attack is received from NORAD [North American Air Defense Command], the SAC commander in chief is authorized to launch the alert force," Power wrote. "He does not have the authority to send the force to war—this authority rests entirely with the President of the United States—but he can and would launch the alert force for one purpose only, and that is to prevent its threatened destruction on the ground."

"Once in the air, the bombers fly toward a designated point on their routes which is well outside enemy radars. After reaching that point, the bombers return to their bases unless they receive coded voice instructions to proceed to their targets. The 'go code' can be given only upon direct orders of the President, and it must be authenticated by officers at each of several levels of command and by more than one member of the bomber crew. Coordinated action by several crew members is also required to arm nuclear weapons after the 'go code' has been received and authenticated.

"The 'go code' is transmitted to the airborne force by a variety of means and from widely separated transmitters in order to ensure its receipt. But if, for some unlikely reason, a bomber should not receive the attack order or if there is any doubt whatever regarding proper authentication, that bomber would turn back after reaching the 'Positive Control' point and 'Fail Safe.' Thus, the worst thing that could happen would be to leave, in case of an actual enemy attack, one or more targets in the aggressor's territory uncovered, a risk that must be accepted in order to guarantee against inadvertent action."

Almost 50 years later, "Dr. Strangelove" is still attracting viewers, and "Fail-Safe" was remade for television in 2000, closely following the story line of the novel and the 1964 film.

few commonalities with those who would employ missiles.”

Power assigned Lt. Gen. David Wade, “a long-time bomber man,” to oversee integration of missiles and missile airmen into SAC and “show them the way things [were] done in the organization,” Deaile said. The missileers took on the special sense of responsibility that comes with the strategic nuclear mission and eventually became as SACumcized as the rest of the clan.

Life on Alert

When LeMay went to Washington in 1957, Power replaced him as commander of SAC. He did not inspire the kind of loyalty and admiration that LeMay did, but although lacking in charm and diplomacy, he was undeniably effective.

The emergence of ICBMs shortened the warning time for attack to 30 minutes. To avoid getting caught on the ground and in order to preserve a credible counterattack capability as a deterrent, SAC aircrews went on alert Oct. 1, 1957—and would not stand down again for more than 30 years.

Aircraft waited at the end of the runway with bombs loaded. Crews, stationed nearby in the “mole hole” alert facility, could have engines running in two minutes, begin to taxi in five minutes, and be airborne within 15 minutes. By 1960, a third of the bombers and tankers were on alert. For quicker launch, the alert aircraft were parked at an angle into the runway, ready for a minimum interval takeoff.

“The takeoff interval between tankers was 15 seconds, and just 12 seconds for bombers,” said Thomas D. Jones, a B-52 aircraft commander before becoming a space shuttle astronaut. “The challenge for pilots was to negotiate the turbulence on the runway and avoid after takeoff the wake of the bomber ahead. Whatever we did, taking off 12 seconds behind another B-52 meant at least a minute

Capt. Kenny Gibaldo (l), missile combat crew commander, and 2nd Lt. John Butler, deputy crew commander, perform a Minuteman III launch simulation at Minot AFB, N.D. Although both LeMay and Powers were initially skeptical of ICBMs, their value to the nuclear mission quickly became apparent.

of very rough air during the takeoff roll and initial climbout.”

From 1961 to 1968, B-52s flew continuous Chrome Dome airborne alerts with as many as 12 bombers in the air at any one time. The operation was directed from the fabled underground SAC command post at Offutt. When a controller in the command post picked up the red telephone at his side, he was in instant touch with every bomb wing, tanker wing, and missile launch control center in SAC. From 1961 to the end of the Cold War, a “Looking Glass” airborne command post flew continuously as a backup to the underground command post.

During the Cuban Missile Crisis of 1962, SAC went to DEFCON 2, the defense condition one step short of all-out war, but its usual posture was DEFCON 4, one step of alert higher than the rest of the force, which typically maintained DEFCON 5.

About half the SAC officer force and a third of the enlisted force were certified to work with or around nuclear weapons. All of them, including the nuclear crews, were monitored by the personnel reliability program. Anyone who showed the slightest indication of a problem could be decertified, temporarily or permanently. Illness, domestic problems, or a death in the family could lead to temporary PRP suspension. Those with difficulties of a more lasting nature were decertified permanently.

Despite his earlier reservations, Power saw the value of missiles. At one point, he proposed that the Navy’s new Polaris SLBM be assigned to SAC, accepting that the SAC staff would have to be “augmented by qualified Navy staff

personnel” and might “possibly involve the appointment of a Naval Deputy CinCSAC.” The Navy declined.

SAC, with its bombers and ICBMs, continued to possess two-thirds of the so-called Strategic Triad, but internally, the balance was beginning to shift. In 1964, the number of ICBMs on alert in SAC pulled even with the number of bombers on alert, then moved ahead and stayed ahead.

CAS From Valhalla

The Vietnam War ended the great separation between SAC and the rest of the force. Unlike in Korea, SAC sustained a major commitment to conventional operations in Southeast Asia with its bombers and tankers.

Between 1965 and 1973, the long-running B-52 combat operation code-named Arc Light encompassed more than 126,000 sorties over Southeast Asia. The principal base was Andersen AFB, Guam, but the bombers also flew from U Tapao in Thailand and Kadena on Okinawa.

The operation was not part of the air campaign run by 7th Air Force in Saigon. Arc Light aircrews and ground crews were drawn from the SAC nuclear alert force and remained under SAC control on temporary duty rotations of up to 179 days. Some pulled a half dozen or more Arc Light tours, but they did not get credit for a Southeast Asia combat tour.



In South Vietnam, B-52s performed the equivalent of close air support from altitudes of 30,000 feet. Strips of ground 1.2 miles long and 0.6 miles wide were saturation bombed by three-ship “cells” of B-52s. The first indication the Viet Cong had that the bombers were there was when the jungle erupted around them.

Operation Linebacker II in December 1972 marked the biggest assembly of US bombers since World War II. Over 11 days, the B-52s launched 729 sorties from Guam and U Tapao against the heartland of North Vietnam, mainly Hanoi and Haiphong. It brought the North Vietnamese back to peace talks and led to the signing of a cease-fire in January 1973.

SAC was the Air Force’s single manager of the KC-135 tankers, whose primary duty was support of nuclear war operations. There was no increase in the tanker fleet, but SAC allocated an average of 88 tankers a year out of existing resources to operations in Vietnam. Under the code name Young Tiger, SAC tankers flew almost 20,000 sorties to refuel tactical fighters in addition to supporting its own B-52s in Southeast Asia.

LeMay retired in February 1965 and later that year published his memoirs, *Mission With LeMay*, written with the help of MacKinlay Kantor. One line about Vietnam from the book would dog LeMay for the rest of his life: “My solution to the problem would be to tell them frankly that they’ve got to draw back their horns and stop their aggression or we’re going to bomb them back into the Stone Age.”

What he actually said, he claimed subsequently, was that the United States had the *capability* to bomb North Vietnam back to the Stone Age, that the words in the book had been written by co-author Kantor, and that LeMay failed to catch them in his review of the draft manuscript.

End of the Line

SAC reached its peak strength with 3,207 aircraft in 1959 and 282,723 people in 1962. Subsequent years saw a steady decline in numbers and a loss of primacy for SAC, with a corresponding rise in emphasis on conventional forces and operations.



A bomber crew races to a B-52 armed with Hound Dog missiles. SAC bomber crews went on alert in October 1957 and wouldn't stand down until 1991.

Even before the Vietnam War rejuvenated tactical forces, the United States had begun moving away from the Massive Retaliation strategy and reliance on nuclear weapons. By the 1970s, US policy was in pursuit of detente with the Soviet Union, arms control, and parity rather than superiority in nuclear power.

By the 1980s, a large part of SAC’s B-52 force was tasked for conventional operations in support of the European, Atlantic, Pacific, Southern, and South-west Asia theaters and, by 1990, SAC was down to 960 aircraft and 119,000 personnel. Fighter generals had displaced bomber generals in Air Force leadership.

Nevertheless, SAC had one last war to go. On the first day of the Gulf War in 1991, seven B-52Gs took off from Barksdale AFB, La., on the longest combat mission in history at that time, refueling in air four times and striking targets in Iraq before landing back at Barksdale 35 hours later. In the Gulf War, the B-52 was the weapon the Iraqis feared most, with deserters fleeing in droves for fear of a B-52 attack.

SAC held the Soviet Union at bay through the long nuclear standoff but when the Cold War ended, its primary reason for existence was vastly reduced. On Sept. 27, 1991, bomber crews stood down from round-the-clock alert for

the first time since 1957. After a run of 46 years, SAC was inactivated June 1, 1992.

The bombers and ICBMs were transferred to the newly created Air Combat Command, and most of the tankers went to Air Mobility Command. In a quick shift, the ICBMs were reassigned to Air Force Space Command in 1993. Air Force nuclear assets became components of a new joint command, US Strategic Command, with headquarters in Omaha. Gen. George Lee Butler, last commander of SAC, was the first commander of STRATCOM, which adopted the old SAC motto, “Peace Is Our Profession,” as its own.

In 2009, the newly redesignated and activated Air Force Global Strike Command at Barksdale, took over control of the Air Force’s three ballistic missile wings, two B-52 wings, and the only B-2 wing. The new command was created in response to a number of miscues in recent years in the handling of nuclear weapons, and the state of the nuclear mission.

For obvious reasons, Global Strike Command has been compared to SAC, and one of its early endeavors was to re-establish the demanding standards and operational culture that prevailed in SAC’s half century. ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributor. His most recent article, “The Condor Legion,” appeared in the February issue.

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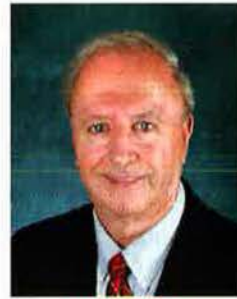
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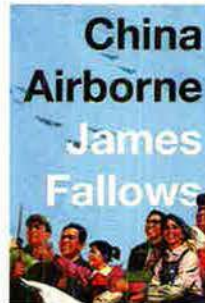
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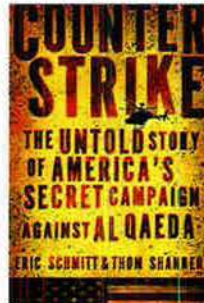
Books Special: CSAF Reading List 2013

Compiled by Chequita Wood, Media Research Editor

Gen. Mark A. Welsh III, Air Force Chief of Staff, in February released his 2013 reading list. Fourteen books form the centerpiece of the list, but it also includes films, articles, music, photography, and lectures. In introducing the list, Welsh encouraged airmen to “find something that grabs your attention.”



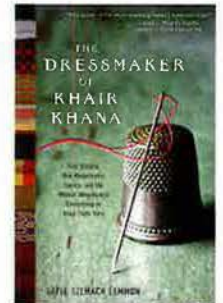
China Airborne. James Fallows. Pantheon, New York (800-726-0600). 288 pages. \$25.95.



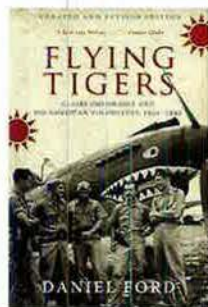
Counterstrike: The Untold Story of America's Secret Campaign Against Al Qaeda. Eric Schmitt and Thom Shanker. St. Martin's Griffin, New York (888-330-8477). 336 pages. \$27.00.



The Dead Hand: The Untold Story of the Cold War Arms Race and Its Dangerous Legacy. David E. Hoffman. Doubleday, New York (800-726-0600). 575 pages. \$35.00.



The Dressmaker of Khair Khana: Five Sisters, One Remarkable Family, and the Woman Who Risked Everything To Keep Them Safe. Gayle Tzemach Lemmon. HarperCollins, New York (212-207-7000). 256 pages. \$24.99.



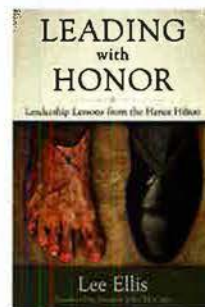
Flying Tigers: Claire Chennault and His American Volunteers, 1941-1942. Daniel Ford. HarperCollins, New York (212-207-7000). 384 pages. \$15.99.



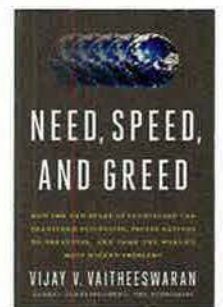
Hat in the Ring: The Birth of American Air Power in the Great War. Bert Frandsen. Random House, New York (800-726-0600). 317 pages. \$24.95.



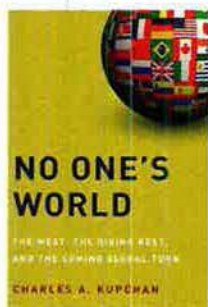
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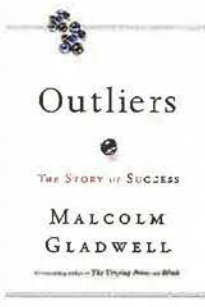
Leading With Honor: Leadership Lessons From the Hanoi Hilton. Lee Ellis. Order from FreedomStar Media, Cumming, GA (678-455-9514). 256 pages. \$22.99.



Need, Speed, and Greed: How the New Rules of Innovation Can Transform Businesses, Propel Nations to Greatness, and Tame the World's Most Wicked Problems. Vijay V. Vaitheeswaran. HarperCollins, New York (800-242-7737). 304 pages. \$27.99.



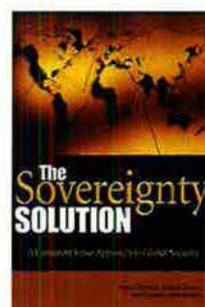
No One's World: The West, the Rising Rest, and the Coming Global Turn. Charles A. Kupchan. Oxford University Press, New York (800-451-7556). 272 pages. \$27.95.



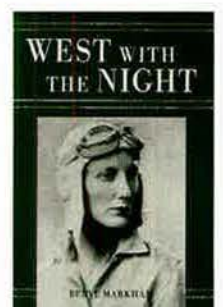
Outliers: The Story of Success. Malcolm Gladwell. Back Bay Books, New York (800-759-0190). 336 pages. \$16.99.



Realizing Tomorrow: The Path to Private Spaceflight. Chris Dubbs and Emeline Paat-Dahlstrom. University of Nebraska Press, Lincoln, NE (800-648-6224). 344 pages.



The Sovereignty Solution: A Commonsense Approach to Global Security. Anna Simons, Joe McGraw, and Duane Lauchengco. Naval Institute Press, Annapolis, MD (800-233-8764). 256 pages. \$32.95.



West With the Night. Beryl Markham. North Point Press, New York (888-330-8477). 294 pages. \$17.00.

* For the entire list, see www.af.mil/specials/csafreadinglist/index.html

AFA National Report

natrep@afa.org

By Frances McKenney, Assistant Managing Editor

How To Make a Splash—in Two Weeks

"Wow, what a look on their faces," wrote Maryland's **Thomas W. Anthony Chapter** President John L. Huggins Jr. in an e-mail. He was describing the reactions of an airman and his wife when they received a surprise gift of a Dodge Caravan, presented in a ceremony at an NFL football game.

SrA. Chad T. Long had been told ahead of time only that, because of his superlative job performance, he would be a guest of Easterns Automotive Group for the Washington Redskins vs. Dallas Cowboys game. Long is a public health journeyman at the 779th Medical Group, JB Andrews, Md.

So on Dec. 30, Long and several family members—including wife, Michelle, and their son, Marcus—joined Huggins at FedEx Field in Landover, Md. From Easterns' VIP suite, they watched the red-hot rivalry that determined the NFC East title. At half-time, they went onto the field. In front of the crowd of 82,000 fans anticipating the Redskins' first division title in 13 years, Easterns CEO Robert Bassam handed Chad Long an oversize photo of a keyless remote, representing the keys to the minivan.

"It was a great feeling to be part of that moment," said Huggins afterward.

The Longs had needed a larger vehicle to transport three-year-old Marcus, who has muscular dystrophy, and his medical equipment. Easterns wanted to honor a military family in its annual car giveaway, done in partnership with the Redskins and contacted Joint Base Andrews to find a family. The public affairs office sought out Huggins.

The chapter president met with the Redskins' representative and 11th Wing leadership to ensure he understood everyone's legal role. Then Andrews officials suggested five candidates, and Huggins called on the chapter's executive committee to make the selection.

Most challenging, perhaps, is that all this had to come together in a little over two weeks.

And the Next Week ...

The president of the **Thomas W. Anthony Chapter** had even less lead time on the next project.



SrA. Chad Long, his son, Marcus, and wife, Michelle (l-r), received a surprise gift at a Redskins football game: a minivan. Thomas W. Anthony Chapter President John Huggins Jr. (right) helped arrange the donation from Easterns Automotive Group.

On the Friday afternoon just two days before the Redskins' next game—the playoff—Huggins received a phone call from Kevin L. Jackson, president of the **Nation's Capital Chapter** in Washington, D.C.

Jackson explained that SSgt. Brian Williams, a wounded airman at Walter Reed National Military Medical Center in Bethesda, Md., had approached a recovery care coordinator with what the RCC described as "a long shot request": tickets for the game against the Seattle Seahawks.

"My first thought was, 'You've got to be kidding,'" Huggins confessed.

But he reached out to his network of contacts, and after turn downs from some, Easterns Automotive Group again came through: Williams, who is a security forces airman, and a guest would watch the wildcard matchup from the car dealership's VIP box.

The Air Force Association chapters got involved in the first place because the recovery care coordinator, Dennis Fritz, had been casting about for a way

to come up with the tickets. Williams, who lost a leg in the explosion of an improvised explosive device, had never asked him for anything, Fritz explained later, so the RCC especially wanted to fulfill this wish. Then he remembered the Air Force Association's Wounded Airman Program.

Established in 2011, it helps airmen who have returned to US medical facilities transition to Active Duty or civilian life. Three chapters—the **Alamo Chapter** (Tex.), **Nation's Capital Chapter**, and **Donald W. Steele Sr. Memorial Chapter** (Va.)—are carrying out pilot programs.

The D.C.-area Anthony and Nation's Capital Chapters were able to work together so quickly because Huggins had earlier laid the groundwork for a relationship: As soon as he had become president of the Anthony Chapter, he contacted area chapter leaders to discuss possible collaborations. Also, Jackson had seen the half-time minivan giveaway.

The Anthony Chapter has since signed up Easterns Automotive Group as a Community Partner.

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

Starbase Oklahoma City

In Oklahoma City, the **Central Oklahoma (Gerrity) Chapter** donated \$1,000 to support its local Starbase, a science, technology, engineering, and math education program.

Chapter President Rick Buschelman presented the funds to Starbase Oklahoma director Pamela Kirk at a December chapter meeting.

Starbase originated with Michigan educator Barbara Koscak in the late 1980s. She interested the 127th Wing commander at Selfridge ANGB, Mich., Brig. Gen. David Arendts, with the idea of having Air Guardsmen teach the Starbase at-risk children. The military personnel could demonstrate the use of STEM in their everyday work and be role models. The program received federal government funding in 1993.

At the Central Oklahoma Chapter meeting, Kirk told the audience that the Sooner State has the largest program participation in the nation—counting students, as well as nine classrooms in seven cities. It also holds teacher workshops.

The 137th Air Refueling Wing hosts two Starbase classrooms at Oklahoma City's Will Rogers World Airport. The AFA chapter's donation will buy model rocket-building supplies for them. Last school year, more than 800 students went through this ANG base's program,

according to the Starbase Oklahoma City Web page.

How Can We Tie This to AFA?

In California, the **Charles Hudson Chapter** strives to increase its community presence through tie-ins, as President Shawn Steward describes it.

In November, to cite the latest example, the chapter for the first time set up a membership booth at the annual Military Vehicle and Tribute show. The event took place at the Kern County Museum. It featured more than 40 vintage pieces, among them restored World War II jeeps, tanks, half-tracks, artillery equipment, a staff car, and an aircraft tug that had been in Hawaii on Dec. 7, 1941—billed as “a Pearl Harbor survivor.”

Local ABC affiliate KEROTV covered the event and posted the video on its website. The news clip shows in the background some of the 20 tents set up in between the vehicles, by organizations such as the Coast Guard, Highway Patrol, and the Hudson Chapter.

Steward partnered with the local Civil Air Patrol unit—“a double bang for our buck,” she said—to run the AFA display at the day-long event. She reported that she and chapter officer Emily Golleher handed out at least two boxes’ worth of back-issue *Air Force* Magazines, AFA

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brochures, and lollipops. The candy would attract the kids, she reasoned, and they will always have an adult—a potential chapter member—in tow.

Steward explained that she keeps track of events planned for Bakersfield, particularly at the museum, and always asks herself: Is there a way to tie the chapter to it?

A Stand Down To Aid Vets

Red Tail Memorial Chapter members took part in a stand down to help homeless military veterans in the Ocala, Fla., area in January.

Stand Downs take place across the nation to provide homeless veterans and their families with health screenings, benefits counseling, and referrals to agencies offering services. In Ocala, a group called Workforce Connection planned the regional stand down, with some 20 organizations such as the Red Tail Memorial Chapter pitching in.

Chapter members led by President Michael H. Emig, who is also Florida Region President, collected “car loads” of clothing and nonperishable items and raised more than \$300. Nearly a dozen chapter members, including VP Howard Burke and Secretary Jerry Deese, distributed the donations during the Saturday stand down, held at Ocala’s National Guard armory.

A local newspaper reported that Florida has 4,000 homeless veterans,

at least 500 in the three-county region around Ocala.

Everyone Counts

Members of the **Thomas B. McGuire Jr. Chapter** in New Jersey donated more than \$4,700 to the local Operation Warm Heart program, run by the First Sergeants Council at Joint Base McGuire-Dix-Lakehurst.

“When 360 called, you answered!” Chapter President William J. Horay Jr. proclaimed in the group’s newsletter, referring to the chapter by its numerical designation.

The USAF-wide Warm Heart program helps airmen with cash or food, and as Horay wrote, everyone’s gift counted. The chapter donations came from more than 100 members, each adding anywhere from \$10 to \$400 to the pot. Horay said he prompted this outpouring by first mailing out 450 letters—eliciting the best response—and following up with an e-mail to all members, numbering just over 400.

The McGuire first sergeants used the chapter donation to buy gift cards for airmen in need.

William M. Cuthriell Jr. (1930-2012)

Longtime Tidewater Chapter President William M. Cuthriell Jr. died Oct. 28, 2012, after an accidental fall and injury at the Atlanta Airport. He was 82.

Born in Deep Creek, Va., in April 1930, retired Lieutenant Colonel Cuthriell had

served in the Air Force from 1959 until 1979 and, along with a tour in Iceland, counted an assignment with the 36th Tactical Fighter Wing, Bitburg, West Germany, as among his most memorable.

Cuthriell held several chapter-level offices over the years and had been state AFA chaplain since 1983. ■

Reunions reunions@afa.org

34th Bomb Sq. October in Charleston, SC. **Contact:** Rod Breland, 5731 Hickory Ridge Blvd, Baton Rouge, LA 70817 (225-751-2058) (rodbrel@msn.com).

55th & 58th Weather Recon Sqs. June 5-7 in Branson, MO. **Contact:** C. R. Layton (918-446-6945) (conradlay@aol.com).

351st Bomb Gp, 8th AF. June 20-23 at the Red Lion on the River in Portland, OR. **Contact:** Deborah Eason (478-453-7388) (dbme@windstream.net).

UPT Class 53-F, all 10 bases. Sept. 16-19 at the Hope Hotel, Wright-Patterson AFB, OH. **Contact:** Jim Mayton, 2000 Tynne Meadow Ln., Prince George, VA 23875 (804-732-2225) (jjmayton@yahoo.com).

US AAC Pilot Classes of WWII. Sept. 11-15 in Seattle. **Contact:** Stan Yost, 13671 Ovenbird Dr., Fort Myers, FL 33908 (239-466-1473). ■

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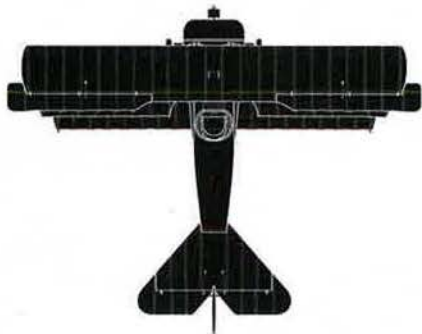
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Dr I



Imperial Germany's Dr I was one of World War I's most famed fighter aircraft. Built by Fokker Flugzeugwerke, the "Dreidecker" airplane was produced in only small numbers but nevertheless was prominent in the great air battles of spring 1918. Moreover, it was renowned as the aircraft in which Germany's "Red Baron," Manfred von Richthofen, scored the last 17 of his 80 air-to-air victories. Von Richthofen perished in the Dr I when shot down on April 21, 1918.

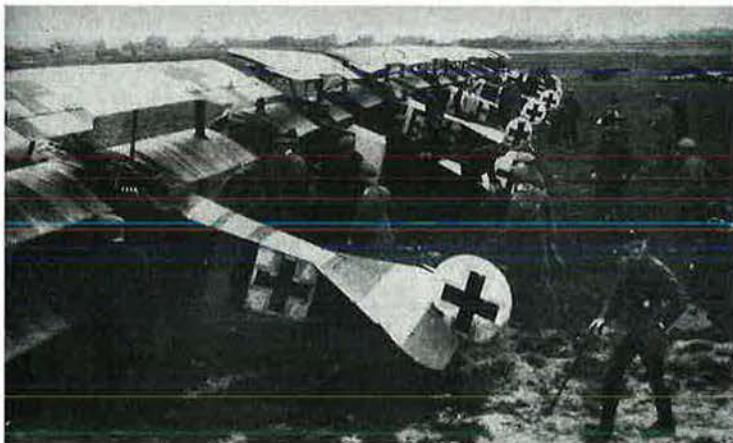
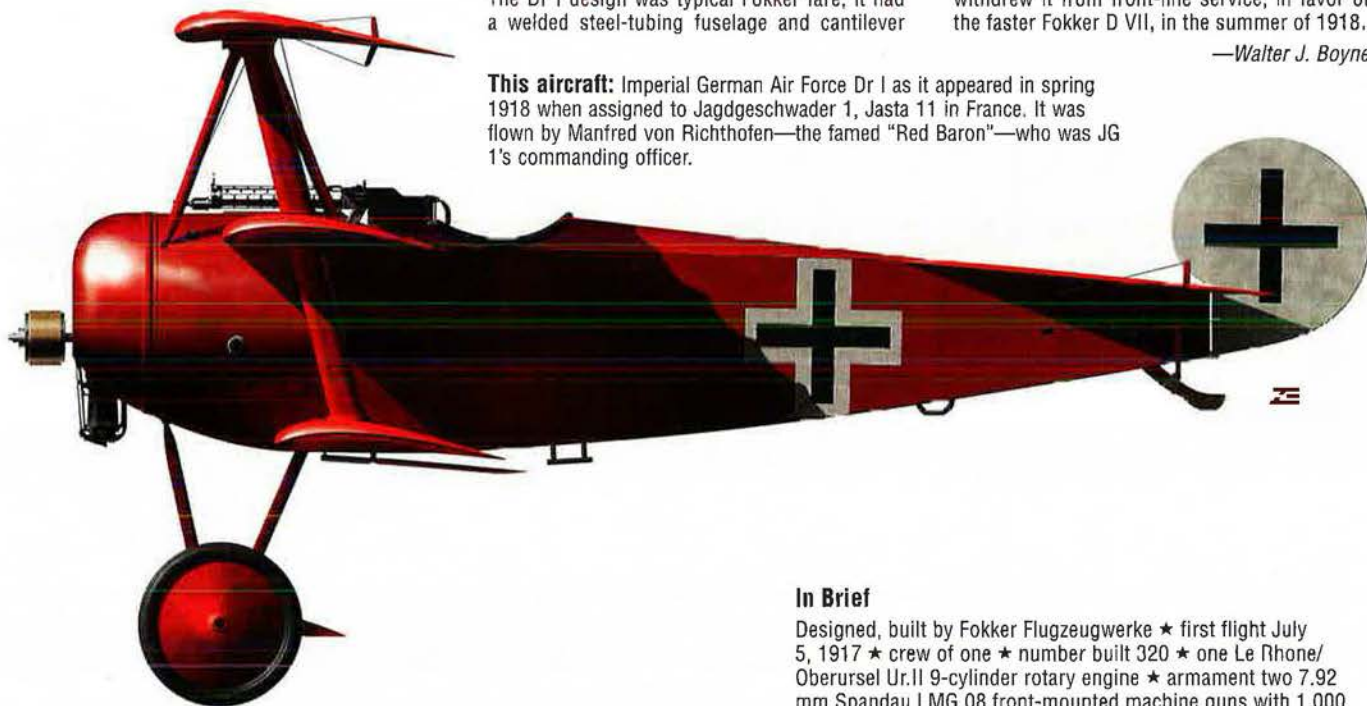
The aircraft was conceived in a kind of knee-jerk response to introduction in early 1917 of Britain's Sopwith Triplane, which soon dominated Germany's Albatros over the Western Front. The Dr I design was typical Fokker fare; it had a welded steel-tubing fuselage and cantilever

wooden wings. The short-span, narrow-chord wings were stoutly built with parallel main spars and interplane struts to prevent flexing. The fixed landing gear had a fourth airfoil surface. The Dr I was highly maneuverable and had a high rate of climb, but it was slow in level flight and was worryingly prone to breaking up in the air.

Von Richthofen first flew the Dr I on Sept. 1, 1917, and shot down an enemy aircraft. He thought it was superior to the Sopwith and argued for buying large numbers as soon as possible. Before long, however, the aircraft began to suffer wing and engine failures, and production halted. It was one of the war's best dogfighters, but Germany withdrew it from front-line service, in favor of the faster Fokker D VII, in the summer of 1918.

—Walter J. Boyne

This aircraft: Imperial German Air Force Dr I as it appeared in spring 1918 when assigned to Jagdgeschwader 1, Jasta 11 in France. It was flown by Manfred von Richthofen—the famed "Red Baron"—who was JG 1's commanding officer.



Triplanes of Jasta 26 at Erchin, France, during World War I.

In Brief

Designed, built by Fokker Flugzeugwerke ★ first flight July 5, 1917 ★ crew of one ★ number built 320 ★ one Le Rhone/Oberursel Ur.II 9-cylinder rotary engine ★ armament two 7.92 mm Spandau LMG 08 front-mounted machine guns with 1,000 rounds of ammunition ★ max speed 115 mph ★ range 185 miles ★ weight (loaded) 1,292 lb ★ span (top wing) 23 ft 7 in ★ length 18 ft 11 in ★ height 9 ft 8 in.

Famous Fliers

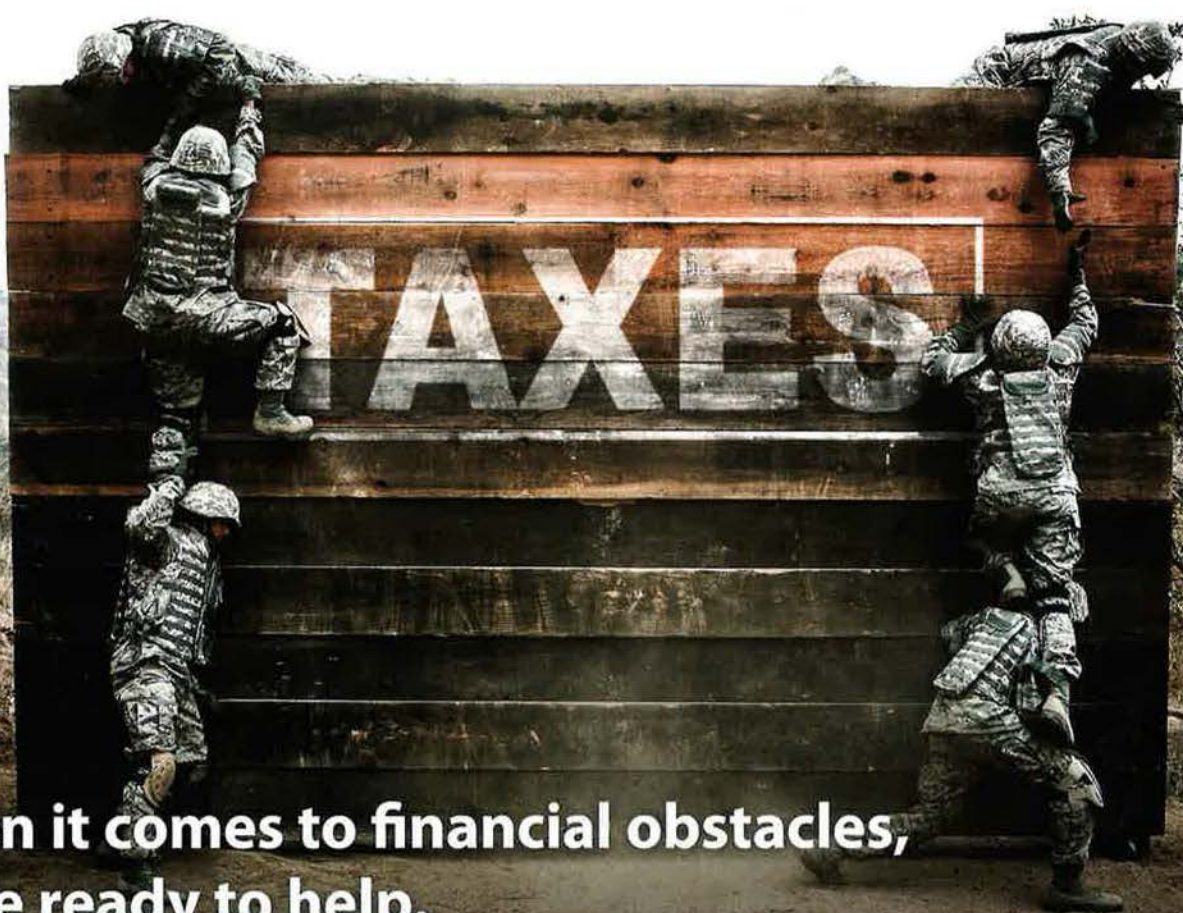
German aces: Manfred von Richthofen, Werner Voss, Heinrich Gontermann, Kurt Wolff, Hermann Goering, Lothar von Richthofen, Ernst Udet, Adolf Ritter von Tutschek. **Test Pilot:** Anthony Fokker.

Interesting Facts

Designed by Reinhold Platz, a professional welder ★ featured in films "The Blue Max" (1966), "Von Richthofen and Brown" (1971), "The Red Baron" (2008) ★ named "Dreidecker," German for "triple decker" ★ plagued by poor workmanship, which caused several notable fatal crashes ★ fitted with wing-tip skids to prevent ground looping ★ took off after a run of about 50 yards ★ continues to be flown in replica form ★ used staggered wings to offer better visibility ★ mentioned by Charles Schulz as opponent to Snoopy's Sopwith Camel in cartoon strip, "Peanuts."



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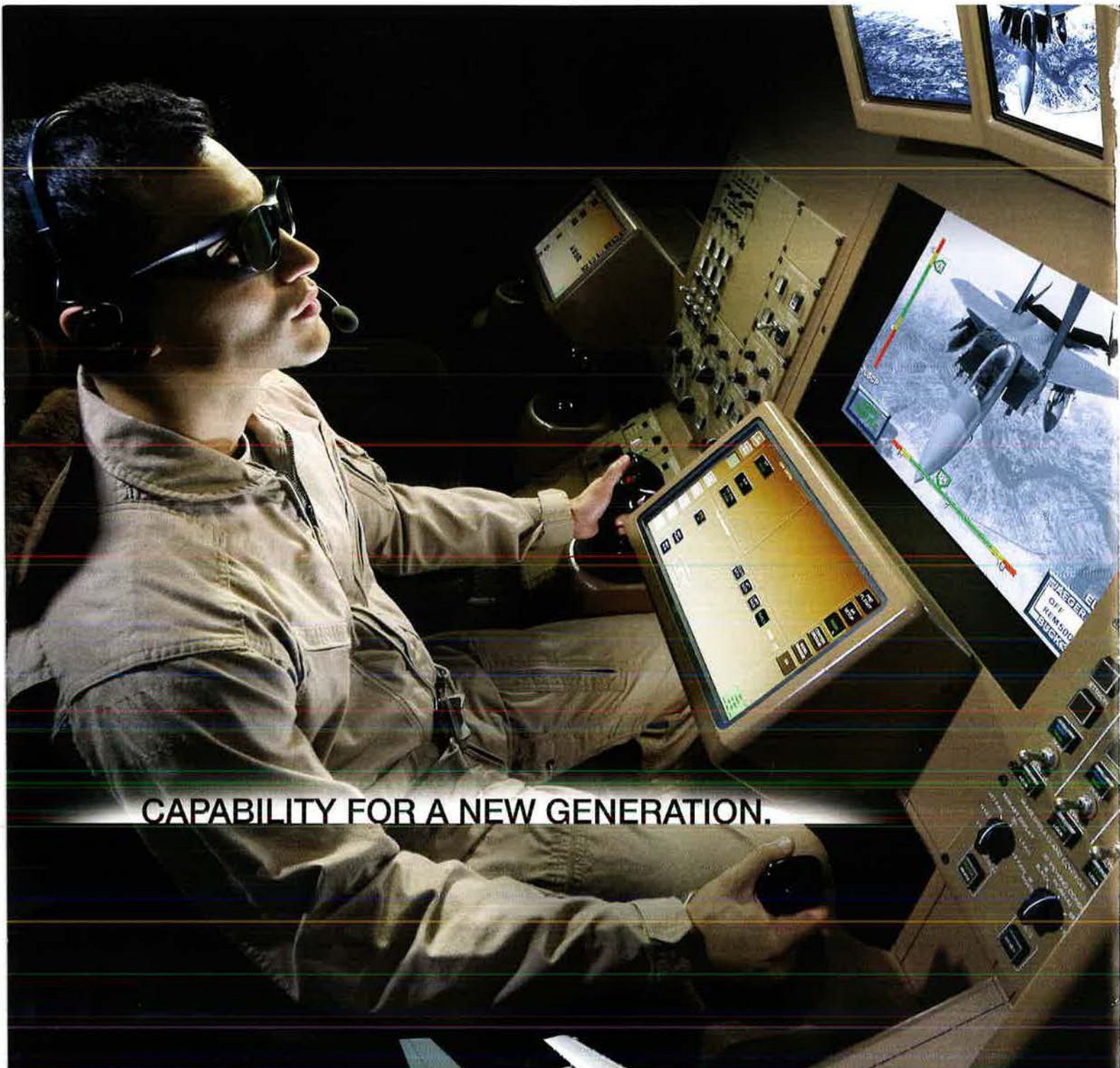
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