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Journal of the Air Force Association

AIR FORCE

MAGAZINE

Global Strike

AFGSC Looks Ahead p. 22

Staying Stealthy p. 28

Whiteman's Ghosts p. 38



Nicole Richardson, EOD
Lafayette Escadrille
Joseph Kittinger

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The Birth of American Airpower

WORLD War I began a hundred years ago this summer, barely a decade after the Wright brothers' first flight in December 1903. Despite the head start and advantages that came from being the pioneer of heavier-than-air powered flight, the United States lacked any semblance of airpower when it eventually entered World War I in 1917.

The royalties the Wrights attempted to extract from other US inventors deterred other Americans from entering the field, stunting the growth of aviation. As a result, Europe raced ahead of the United States in the air prior to World War I. Not surprisingly, the Europeans raced further ahead during the war.

In 1914, the Aviation Section, US Signal Corps, had roughly 50 airplanes. Many were not fit to fly. None were fit to fight.

American volunteers headed to France to join the Lafayette Escadrille and the Lafayette Flying Corps, where they served with distinction before the US officially entered the war. (Much more about the Lafayette Escadrille can be found beginning on p. 52.)

By 1917, airpower's importance had been clearly demonstrated as the war raged "over there." In three years, specialized European fighters, bombers, and reconnaissance aircraft were developed, engaged in daily battles, and in many cases quickly became obsolete. Incredibly, more than 200,000 aircraft were built for use in World War I. Of these, it is estimated that more than 150,000 were shot down or crashed.

In sorry contrast, the US Aviation Section began the war with fewer than 250 aircraft, none of them state-of-the-art.

In the US, long-standing patent battles only ended when Franklin Roosevelt stepped in. Roosevelt, then the assistant Navy secretary, convinced the primary US manufacturers to enter the Manufacturers' Aircraft Association in 1917. This patent pool lowered royalty payments and allowed the manufacturers to share patents and technology and thereby increase production.

American commitment to airpower changed rapidly when the US entered the war in April 1917. On May 24, the French government called on the United States to build 16,500 airplanes "of the latest type" by 1918.

Congress went even further and appropriated \$640 million for 22,625 aircraft and 45,200 engines to be delivered by the end of 1918—all of unspecified types. Given that in the preceding years, American industry had built only about 200 aircraft, it was an impossible dream. The appropriation wasn't too little, but it was too late.

After years of neglecting the airpower mission the money was now rolling in, unrealistic targets needed to be met, and many decisions were made in haste. In June 1917, Maj. Raynal

US air forces lagged the Europeans in both numbers and capability.

Bolling took a team to Europe to select which types of aircraft to manufacture.

For the rest of the war, American aerospace efforts were perpetually playing catch-up. The technology was advancing rapidly, and various European designs consistently outclassed US-built offerings.

The de Havilland D.H.4 (called the DH-4 in the United States) was the most successful European transplant to US production, but it was already obsolete by the time domestic manufacture began.

The frantic, if sometimes misdirected, efforts paid off—but not always the ways people anticipated in 1914. The Air Service sent almost 80,000 personnel overseas and had 740 combat aircraft at the front on Armistice Day. Only 196 of them were of American manufacture.

US aviators shot down 765 German aircraft, 76 German balloons, and flew more than 35,000 hours over the front lines. The top seven American aces of the war (Eddie Rickenbacker, Frank Luke, George Vaughn, Field Kindley, Elliott Springs, Reed Landis, and Jacques Swaab) combined for 101 official kills.

Erwin Bleckley, Harold Goettler, Luko, and Rickenbacker all earned Medals of Honor for their heroism in the skies over France—but of the four, only Rickenbacker survived the war.

Roughly 170 American aviators died in combat—but 681 perished near the

front lines overall. In a testament to how dangerous flight still was at this time, more than 500 US airmen died in accidents.

Ultimately, it was America's entry into the war that sealed victory for the Allied powers. The US forces were late to the scene, but they were fresh, skilled, brave—and were not worn down by three years of the meat grinder on the continent.

On Nov. 11, 1918, World War I mercifully came to an end. Almost immediately, an early example emerged of what would become a common theme in later decades.

Congress and the American public let airpower atrophy, deciding that its benefits no longer justified the expense. The US was forced to again quickly build up from low levels for World War II.

Other drawdowns took place after the Korean War, Vietnam War, and Cold War. Each time the nation was later forced to rapidly rearm when the world proved less peaceful than hoped.

Airpower made amazing strides in the 15 years between 1903 and 1918. The Air Force's advances over the past 15 years have also been impressive—especially in the areas of command and control, intelligence, surveillance, and reconnaissance, and precision attack.

Still, there are fundamental differences between then and now. In 1914, the US did not have the best equipment or the best-prepared forces in the air. Today, generally speaking, it does.

A century ago, the US rapidly built up its air forces when it entered World War I. In recent years, USAF has gotten significantly smaller while still at war.

Hopefully the nation will not repeat the mistake of allowing airpower to needlessly wither away in the coming years. World War I shows how today's dominance in the air is not a birthright and cannot be taken for granted. Air dominance is perishable and can be quickly lost if not reinforced.

Today's Air Force is uniquely able to exert American influence, deter enemies, and win battles. No one knows when the US will be forced to fight again, but we can be sure that it will. ■



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Advocate for aerospace power and STEM education.

Support the Total Air Force family and promote aerospace education.

Check This Out, Congress

I read with some interest your June *Air Force Magazine* article "Enemies for Hire" [p. 42]. I particularly noted the statement on p. 45, attributed to Airborne Tactical Advantage Co. (ATAC), that "using ATAC aircraft [to provide dissimilar aircraft combat training-DACT] saved \$16,000 per flight hour, over the course of 19,000 sorties." Assuming one-and-a-half hours per sortie, those 19,000 sorties amount to 28,500 hours. At a savings of \$16,000 per flight hour, the total saving amounts to \$456,000,000—a truly spectacular sum! We might also assume that this was just for Navy DACT, since the referenced paragraph discusses specifically, and only, Navy F/A-18 DACT savings. I wonder how Air Force DACT stacks up?

Of course, the cited numbers are probably over the lifetime of Navy DACT, which we aren't privy to from said article. But if we assume that ATAC has been providing Navy DACT for its entire lifetime—20 years, per the article—then we can divide that spectacular savings by 20, and the average savings per year is only a paltry \$22,800,000. Congressmen, take note!

Maj. John A. Triplett,
USAF (Ret.)
Morgan, Utah

Let Enlisted Lead

My take-away after reading June's article "The New NCO Way" [p. 26] several times is that perhaps some have forgotten, or were not aware, that enlisted people have long been staffing positions previously held not only by company grade, but also field grade officers. When I attended the SNCOA, Class 81-C, it was commanded by a colonel, and subordinate directors were field grade officers. Regardless, the academy was at risk of having its doors shut because of a lack of academic

rigor and instructional vigor. Among other things, there were low academic standards and poor instructional practices. Additionally, there was a lack of professionalism and decorum on the part of some instructors and a general lack of discipline among not only the student body but also the instructional cadre. That's when CMSgt. Bobby G. Renfroe replaced the colonel, and senior NCOs replaced the company and field grade officers. Chief Renfroe was the right person, at the right time. His leadership directly resulted in improved academic standards, enhanced instructional programs, personal and professional discipline, and a keen sense of camaraderie and esprit de corps. I mean no disrespect to officer personnel, but I believe all can agree that the SNCOA has thrived under enlisted leadership.

When then-CSAF Gen. Merrill "Tony" McPeak disclosed plans for a major reorganization—reshaping combat units and cutting management staffs in major commands and at the Pentagon (see "McPeak's Plan," *Air Force Magazine*, February 1991 [p. 18])—his initiative was not lost on the PME senior NCO corps who envisioned how enlisted PME could be streamlined and flattened to improve the instructional programs at

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the USAF leadership schools, NCO academies, and the Senior NCO Academy. The Center for Professional Military Education (CEPME), now known as the Barnes Center for Enlisted Education, was the strategic vision of enlisted personnel who developed the concept and design to eliminate duplication of effort, reduce manpower, improve instruction, and reduce costs. It has also been a tremendous success.

If it were not for an influential chief who lacked the vision to appreciate the capabilities of the enlisted corps, the Barnes Center for Enlisted Education would today be led by a chief instead of a colonel. Unfortunately, this shortsighted chief convinced senior officer leadership that enlisted members were not capable of assuming the responsibility. Nonetheless, the decision was made to staff the vice commandant position of the Barnes Center with a chief. Having served as the CEPME/CV during its creation and stand-up, I believe it continues to be the only USAF organization with an officer (colonel) serving as the commander and a chief as the vice. At that time, the Air Staff provided waivers so that I could fully assume the duties as the vice, a practice that could easily be utilized in the future.

Without disparaging the previous or current fine officer leaders of [USAF], it is time to reconsider appointing a chief to be the next leader of the Barnes Center. Without question, there are capable chiefs who have the education, experience, and leadership skills to accept this important and symbolic responsibility.

There is value in selected enlisted people assuming greater authority and responsibility because they are able and willing—emphasis on authority. Responsibility without authority would be an impossible task to accept. My hope is that if this comes to fruition, selection will be solely based on USAF needs and the individual's formal education, qualifications, experience, and readiness. My fear is that some will be selected by extraneous variables that are politically correct or are based on cronyism or favoritism. This would be a losing proposition. Thanks to the CSAF and CMSAF for having this vision.

CMSgt. Nace J. Macaluso,
USAF (Ret.)
Wetumpka, Ala.

I think the Air Force is on to something good, as outlined in Marc V. Schanz's article, except that I question replacing some company grade officer billets with senior NCOs. He talked as to how company grade officers will go to a senior NCO and ask advice about a decision. These are times when the more senior and experienced NCO can teach the young officer. The young officers need

that mentoring by senior NCOs so they understand the enlisted perspective. Yes, it will save money, but I believe it will also harm the development of field grade officers.

Col. Don Hengesh,
USAF (Ret.)
Petoskey, Mich.

I always enjoy the impressive photographs that accompany your articles and serve to highlight the personnel and equipment that make up our Air Force. They say a picture is worth a thousand words and I fully agree with that.

I took special note of the photo of the young technical sergeant that was included in "The New NCO Way" article. This sharp-looking ABU-clad NCO lost points with me when I noticed that she wasn't wearing her occupational badge. Granted, it is an optional (but highly encouraged) wear item, but to me it is a key part of each airman's unique professional identity.

If memory serves it was former CSAF Gen. Merrill McPeak who felt so strongly about occupational badges that he ensured one was made available for every career field in the Air Force. Previous to that only folks with aeronautical ratings or in select career fields like ATC, security forces, and others were so blessed. I wonder what this NCO would say to General McPeak, who felt it important enough to create badges for all those that had been previously left out?

Badges are not just given away; they're earned and should be displayed proudly for all to see and admire. I don't know how it is in other career fields but in the ATC business I've often seen pinning ceremonies where the badge is formally awarded in front of peers. It's a very proud moment in a young controller's career. As it should be!

Col. Bill Malec,
USAF (Ret.)
O'Fallon, Ill.

Put Up or Shut Up

After reading your June editorial, I was sorry to see that the editor of *Air Force Magazine* produced an article based on little facts but a lot of arrogance when he accused A-10 supporters of suffering from parochialism [*Editorial: All Parochialism Is Local*, p. 4]. It is a travesty that you represent the total Air Force, yet you are siding with the politicians and not keeping our armed forces prepared to fight future battles.

Your editorial had the premise that the real reason why people were defending keeping the A-10 in the Air Force close air support (CAS) inventory was that of local parochialism to defend not just the aircraft but Davis-Monthan Air Force Base. The editorial does not

address the current and near future of the tactical requirements of ground commanders for CAS. As the editor in chief, you owe your readers more substantial arguments than the three underdeveloped statements you used to support your position.

I found your "spurious" argument the one that hit closest to home. My son-in-law served two combat tours as a Marine infantry platoon commander in Afghanistan. He had personal experiences with both the F-16 and the A-10 in close combat situations. While he valued the time to target, the F-16's speed and time on target did not allow for creative options. One comment he made was that the sound and fury of the A-10 Gatling gun had a powerful positive effect on his unit's morale. He wondered how it sounded to the enemy. I think you need to survey more field commanders as to how they saw the effectiveness of the A-10 vs. the F-16 or the F-15. Currently there is a B-1 bombing incident being investigated for possible fratricide. While it is true that the B-1 can carry a railroad car full of bombs, the altitude and the lack of target visualization make it a tough choice for a CAS assignment.

I thought your cost argument was not developed. The Reaper is cost-effective—unless you are an Afghan or Pakistani politician who has continued to report the loss of civilians to include women and children or a weapons controller confronting a jammed signal. Yes, you are right, the A-10 is low and slow and just maybe there is a little parochialism among some of the Air Force leadership against it not being sleek and fast.

While I respect General Welsh's leadership, I found him drinking the F-35 Kool-Aid when he made the all-encompassing statement, "Nobody likes it." Here is where the politico budget drives the choice away from supporting the American fighting man in order to save the F-35. Sorry, there is a time for the military to stand up and fight for what is needed. Let me remind the reader that the F-35 can carry 182 or 220 25 mm rounds depending whether they are internal or external pods. The A-10 carries the GAU-8, which contains 1,350 30 mm rounds. The A-10 is far from being a budgetary snafu. You did not prove that and your article smacked of supporting the political wants, needs, and desires versus that of the military. You did not support the tools that are needed for CAS by the American fighting corps.

Lt. Col. James Slagle,
USAF (Ret.)
Tucson, Ariz.

■ Gen. Mark A. Welsh III was not criticizing the A-10 when he said, "Nobody

likes it." The quote was a reflection of the fact that USAF leadership does not like the decision to kill the A-10 but feels financially forced into it.—THE EDITORS

While several points in your June editorial, "All Parochialism Is Local," have merit, numerous others are guilty of the same parochialism for which you indict others. This letter seeks to challenge your interpretation of the three espoused arguments supporters of the A-10 purportedly use to defend keeping the aircraft in the Air Force inventory.

The first argument states ground troops "love the A-10" for the trivial reason they can "see it in action during close air support runs." This argument is too simplistic and in error. Ground troops are not just excited spectators; rather, their admiration of the A-10 is based in their knowledge of A-10 capabilities reinforced by real-world experiences as A-10 pilots employed various weapons to provide the needed support whether the enemy is hundreds of meters away or a mere hundred feet away. While other Air Force aircraft can, and do, perform CAS, often the situation may restrict their ability to provide the requisite support. The support a B-1B provides diminishes rapidly as the distance between enemy and friendly forces decreases due to the proximity of the bomb blast/fragmentation. In addition, the JTAC must be able to provide precise coordinates while under fire and weather often prohibits effective TGP operations, and so on. A-10 attack pilots train tirelessly to employ a wide variety of ordnance under any conditions to include visual employment, under the weather, and danger close. As well, while flying higher and faster may make aircraft less vulnerable to ground threats (terrain and threat dependent), these characteristics can simultaneously make it exponentially more difficult to support the ground forces (weather obscuration, target and friendly identification, etc.). Finally, you claim the F-16 has been the primary CAS platform in Afghanistan without providing any supporting documentation, references, or qualifications. Are you stating the F-16 has flown the most sorties? Does this claim include NATO nations flying the F-16 (a dubious inclusion since no other nation has the A-10 and provide whatever type airframe they possess)? What is your basis for this claim? The claim may well be true, but we must qualify our claims to maintain credibility of our arguments.

The second argument attempts to take aim at cost-effectiveness. The standard means to evaluate cost is "cost per flight hour." Using the Air Force's FY14

USAF Amended Budget Estimates, dated May 2013, OCO Exhibit OP-20 Analysis of Flying Hours Program, the A-10 is the least expensive manned combat aircraft to operate per flying hour. While it is true the unmanned MQ-9 is cheaper to operate per hour, it is also a much less capable CAS platform (more truthfully, it is an armed ISR platform which can perform CAS if the situation allows). As well, you use a logic all your own in stating the B-1B is the most efficient due to its large weapons payload. This is only true if all CAS engagements could be solved with JDAMs and the B-1B employed its

entire payload. Conversely, if it returns without employing, it could as easily be declared the least efficient, as the B-1B is one of the most expensive aircraft to fly per flying hour. As well, due to its deployed location, the B-1B costs US taxpayers an exorbitant amount of money merely to transit back and forth to the AOR. By any logical standard, the B-1B is nowhere near the "top of the effectiveness equation" as is asserted in the editorial.

The final argument indirectly derides the capability of the A-10 and attempts to place its expansive capabilities into a narrow paradigm. The logic subse-

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The World's Sixth Sense



quently sidetracks into a historic litany of outdated military equipment to include battleships, the SR-71, and even the horse cavalry. Where the analogy fails is that the examples provided were all replaced by equipment that performs the same mission at a greater level and more efficiently. Current Air Force leadership has stated that the A-10 is the best close air support asset in the inventory, and while the F-35 and other manned and unmanned aircraft can "do" CAS, it will not be at the exemplary level at which the A-10 performs the mission. The attempt to pigeonhole the wide-ranging capabilities of the A-10 hints at a lack of knowledge and/or understanding of the A-10 [and] its pilots and a similar failure to appreciate the dynamics of ground engagements. (I would also add that, in my opinion, the A-10's ability to perform the combat search and rescue mission as well as forward air controller will exceed the ability of the F-35 or other current fighter airframes for the foreseeable future.)

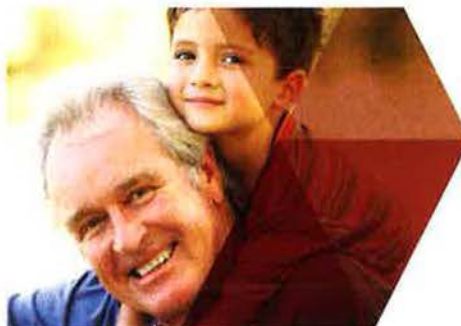
Tough decisions due to budgetary constraints are a fact that is understood by all airmen. Therefore, all arguments pushed forth to fortify our institutional position must be logical, nonemotional, backed by facts, and fortified by an acknowledgement of accepted risk and/or mission degradation. This letter is not to be construed as a rebuttal to Air Force leadership regarding the divestment of the A-10; rather, it is a call for us to adhere to our core values—in particular, integrity in all our arguments and metrics we put forth to support those arguments. For if we use logical fallacies, appear to provide "cherry-picked" statistics, or use false analogies, we will immeasurably reduce our credibility and influence as an armed service. In addition, "Excellence In All We Do" must be at the forefront for whichever platforms eventually perform the CAS mission. [Speaking] as both an A-10 pilot and as a father of an infantry officer, CAS performed "adequately" or "reasonably well" does not meet the excellent level of CAS expected to protect our airmen and joint/coalition partners.

Lt. Col. Scott Hoffman,
USAF
Davis-Monthan AFB, Ariz.

■ *Air Forces Central data shows that A-10s have flown 19 percent of CAS missions in Iraq and Afghanistan since 2006, while F-16s have flown 33 percent of CAS missions. For Afghanistan alone, since 2006 the A-10 has flown 24 percent of CAS sorties while F-16s have flown 18 percent. The B-1B, F-15E, and Navy F/A-18s have also contributed double-digit percentages of CAS sorties in Afghanistan.*—THE EDITORS

The editorial by Adam J. Hebert repeated the message pushed by the CSAF, General Welsh, for getting rid of the A-10. He did this so well he could have been using the general's talking papers. In the editorial, Mr. Hebert also accused the Arizona congressional delegation of being "parochial" for wanting to save the A-10 and, by extension, Davis-Monthan Air Force Base. It appears that Mr. Hebert (and *Air Force Magazine*) is being parochial by parroting the views of the CSAF, pushing his "wants" (more F-35s), and not looking at the bigger question of what is close air support (CAS) and what it is not. The argument that has been put forward by the CSAF is that we have

many types of airframes (F-16, F-15E, and B-1) that can conduct CAS operations. The precision guided munitions (PGMs) that have greatly proliferated in the past 10 to 15 years allow these aircraft to be employed somewhat close to friendlies. When asked if they were as good as the A-10, General Welsh admitted that though they may not be as good as the A-10, they were "good enough" for the Army. "Good enough" sadly, was not in fact good enough for five Special Forces soldiers and one Afghan soldier killed by "friendly fire." For reasons unknown at this time, these troops were killed by precision munitions dropped on their position by a USAF B-1 flying at high altitude. This was termed



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a CAS mission, but dropping a JDAM from 40,000 feet is not CAS. Though this mission may have been planned in near proximity to friendlies, in the end, it was just a bomb dropped on a set of coordinates where someone thought the enemy troops were—and hopefully ours weren't.

With true CAS, the attacking pilot is in a position, i.e., close enough to see where the good guys and bad guys are. In conjunction with the JTAC, this pilot and his wingman then have the ability to adjust weapons delivery with respect to the fluid battlefield situation in order to kill the bad guys and not the good guys. Lastly, as good as PGMs are, they have no place in a troops in contact or danger close situation. In these scenarios, the A-10s with their GAU-8 gun is the only real option (at night, AC-130s work nicely). I repeat, dropping a JDAM from 40,000 feet is not CAS. This remains the prime argument for saving the A-10 and points to the fact that some at high levels in the Air Force have forgotten what CAS really is and what it isn't.

Lt. Col. Thomas E. Rodgers,
USAF (Ret.)
Colleyville, Texas

The question shouldn't be, "Do other platforms perform CAS?" The question should be, "Do other platforms perform CAS as well as the A-10?"

B-1? Really?

CMSgt. Greg Wetzell,
USAF (Ret.)
Warsaw, Mo.

Wrong Exit

In the June magazine article on "Museums and Money" [p. 36], your information on the Strategic Air and Space Museum in the caption for the photo on p. 40 states that the museum is located adjacent to Offutt AFB, Neb. The museum is actually located off Interstate 80 at exit 426 near Ashland, Neb.

MSgt. Robert E. Chason,
USAF (Ret.)
Bellevue, Neb.

Let's Not Count On Putin's Good Will

While I am thrilled by USAF's "Space Launch Renaissance" [June, p. 20], there is one serious problem. All of the Atlas V rockets use Russian-produced engines with more launches currently scheduled than there are engines in the inventory (38 launches scheduled, 16 engines on hand). Time to quit dancing with the devil and look for investment in domestic sources if we want to have any leverage with Putin & Co.

Sean M. Mallory
Edinboro, Pa.

Gen. Benjamin Davis, Peacemaker

I enjoyed the article ["The Tuskegee Airfields," June p. 60]. I read it several times. I wish you had written a little bit more about Ben Davis [as a] general.

In April 1968 while stationed at Mactan Air Base in the Philippines, I met Lt. Gen. Benjamin Davis Jr. At the time, he was the 13th Air Force commander at Clark Air Base. I was the finance officer at Mactan. General Davis was visiting Mactan to smooth over a political flap with a Philippine senator.

The senator's plane was delayed in landing at Mactan because one of our C-130s had a mechanical difficulty and was coming from in-country. The combat support group met with General Davis to discuss the situation. General Davis picked me out because I was the only lieutenant at the meeting—I was wearing my father's brass and lieutenant's bars.

I did not know until 40 years later that Captain Davis and his fellow airmen had been escorting the B-17 in 1943, 1944, and 1945 in the North African and Sicily, Italy, theaters.

Bill Humphries
Houston

The Book on Gates

I resisted commenting on John Tirpak's excellent article in the March edition on "Gates Versus the Air Force" [p. 54] until I had read Gates' book in its entirety, which I have now done. The book is an extremely well-written, detailed account of all the major national security decisions made during Gates' four-plus-year tenure as SecDef, with a strong focus on wars in Iraq and Afghanistan. The book is far more balanced in its treatment of presidential decision-making than the news media suggested. Gates comes across as a dedicated, brilliant, but narcissistic, public-servant executive whose focus was on the wars, the care of the troops, on eliminating "unnecessary" programs, and on improving the Pentagon's efficiency. And the book clearly shows how his biases influenced his decision-making, especially in matters related to the Air Force, as Tirpak pointed out.

But more importantly, in my view, the book shows that Gates embraced the basic military strategy of "invade, occupy, stabilize, and democratize" without question, when even a cursory review of military history shows this strategy has always failed in the long term and that any successes would come at a high price and be temporary. His focus was on tactics like how many troops to surge at what rate and the rate of withdrawal. He does not seem to recognize that a counterinsurgency fought by occupying troops is doomed to failure no matter

how good the tactics are because in the end, an occupying force can never win the "hearts and minds" of the people.

At the time he completed writing the book, Gates still thought that the troop surge in Iraq had succeeded and was succeeding in Afghanistan. I wonder, as he watches both countries now being destroyed by sectarian violence, civil war, and terrorism, whether he asks himself if there might have been a better strategy. The book suggests that he is probably not asking the question but instead would blame our failures in Iraq and Afghanistan on not staying the course and withdrawing too soon. The irony of this is that if Gates would address the better-strategy question, I believe it would lead him to far more reliance on precision strike by the Air Force in support of counterinsurgency fought by government security forces, not US forces.

Brig. Gen. Raymond A. Shulstad,
USAF (Ret.)
Tampa, Fla.

Can You Hear the Echoes?

Recently, nearly 1,200 Arnold Air Society and Silver Wings members, all Air Force Association members as well, assembled in Washington, D.C., for our 66th annual National Conclave. Many AFA chapters and individual AFA members around the country, along with the AFA national staff, contributed funds or other support to make this event a tremendous success. Thank you!

If you ever doubt the impact you have in supporting Arnold Air Society and Silver Wings as members of AFA, I suggest you visit the Smithsonian's National Air and Space Museum where you will be able to hear the echoes of 1,200 cadets and college students chanting "U-S-A" in unison. Or take a moment to walk into the great ballroom at the Wardman Park Hotel, where you will find the echoes of 1,200 of our youngest AFA members singing all verses of the Air Force song, following an address by the Chief. Or stroll through the reception area at the same hotel where you will feel the energy of every conclave attendee as the Chief stood for nearly two hours with them until 1,000 pictures were taken and 1,200 hands were shaken. You made this happen!

Every AFA member helped make this year's conclave a lifelong memory for some of America's very best and brightest. As executive director of Arnold Air Society and Silver Wings, I am truly grateful for your support. Thank you!

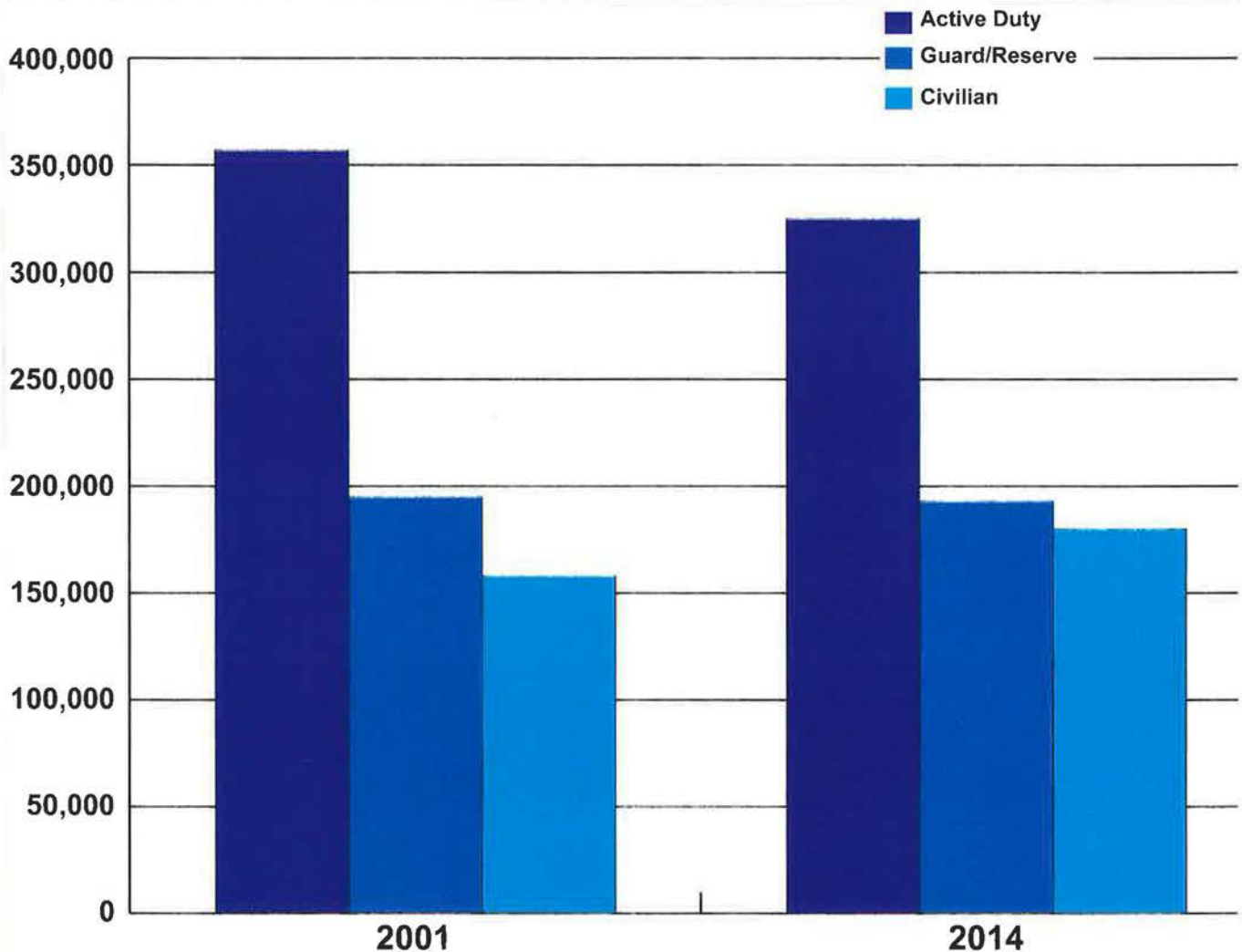
Brig. Gen. Daniel P. Woodward,
USAF (Ret.)
Granite Bay, Calif.

Too Many USAF Civilians?

The Pentagon's civilian workforce is too big and has remained untouched in the drawdown. So asserts Mackenzie Eaglen, a defense scholar at the American Enterprise Institute. In the case of USAF, 2001 and 2014 data show military manpower has shrunk while civilian manpower has grown. The 353,571-strong Active Duty force of 2001 has shed a net of 31,398 troops, or nine percent. The 183,355-strong Air National Guard and

Air Force Reserve have lost a net 7,555 positions, or four percent. Meanwhile, USAF's 155,420-strong civilian force of 2001 has added a net of 17,005 members, or 11 percent. (The ANG/AFRC figure is from organized units, the civilian figure is direct hire only.) Eaglen warns that rising civilian pay accounts for two-thirds of projected growth in all service operations and maintenance spending from 2013 to 2021.

Air Force End Strength



Source: "Cut the Pentagon's Civilian Workforce," by Mackenzie Eaglen, American Enterprise Institute, in *Breaking Defense*, April 30, 2014, <http://breakingdefense.com/2014/04/cut-the-pentagons-civilian-workforce/>.

Boosting the ICBM force; Nuclear rank matters; Japan abandons pacifism; ACC prepares for the future

GOING TO NUCLEAR REHAB

The Air Force is about to invest a lot more money and attention in its nuclear forces to fix cultural and organizational problems that seem to have defied correction in recent years, service Secretary Deborah Lee James said in June.

Speaking with defense reporters in Washington, D.C., James said she pulled \$50 million from other Air Force accounts in Fiscal 2014 to shore up the nuclear mission area in the wake of a cheating scandal that highlighted new morale and discipline problems. The amount, she said, was all Air Force Global Strike Command believed it could usefully spend this year. She plans to infuse another \$350 million above and beyond previously budgeted amounts into the nuclear mission over the next five years.

"I am certain that additional resources are probably still in order" beyond that, James asserted.

The nuclear mission area has been plagued with morale and discipline problems for a while. In 2008, the previous Chief of Staff, Gen. Norton A. Schwartz, and previous Secretary, Michael B. Donley, were brought in with a charter to revitalize the nuclear enterprise. James said the mission's decline "is not something that happened in the last year or two or even 10. It's probably been happening gradually over the last 25 years. So I hesitate to say that there are [any] quick fixes out there."

James laid out a series of initiatives she thinks will raise morale among the nuclear forces, by making them feel more appreciated and that they're fulfilling a critical function, with their work reasonably evaluated, and their service valued in tangible ways.

For starters, James said the mission area will be largely excused from personnel cuts previously planned for the nuclear area and will in fact see a boost of 1,100 people. These will be principally field positions, in what she called "eight critical nuclear specialties," now "undermanned." This situation has hurt morale and effectiveness because others have had to work harder to make up for the missing people, she said.

The existing "zero defect" mentality revealed by the cheating scandal "wasn't a healthy environment" and "we've redone the testing environment" so small errors on tests will not doom a nuclear professional, James asserted.

New directives have been issued to the field designed to push decision-making authority to lower levels, James reported.

"Memos don't shift culture," she acknowledged. "Leadership and time eventually shifts culture, but this is a start."

Observing that "rank matters in the military," James said she plans to propose elevating the commander of AFGSC—now a three-star job—to four-star level, to put the commander on an even footing with other major command chiefs. Similarly, a two-star general, who supervises nuclear matters on the Air Staff, would be elevated to three stars to give the mission the necessary organizational clout.

Starting with Fiscal 2015, "we're going to introduce some new incentives for the [nuclear] force." New missileers will receive an accession bonus, ROTC scholarships will be provided for those seeking to enter the field, and "we're going to be providing field incentive pay for people who deploy out to the missile fields for X number of days, and so forth." There will be "a variety of financial incentives to kick it up a notch for this force."

James said she's done extensive "focus groups" and interviews with rank-and-file nuclear professionals, and for most, "it was probably not their first, second, or third choice" of a career field. "They were assigned according to the needs



James is paying attention to the nuclear force. A lot of attention.

of the service" and usually didn't volunteer, she said. While she doesn't think the incentives will change the mindset "by themselves," she said, "it's one element of a holistic picture." Also, putting money toward modernizing the weapons themselves and nuclear facilities will make clear to the airmen in the career field how valued the mission itself is and they can feel "like [they're] making an important contribution."

She will also lobby Pentagon leaders to understand that this "is a national mission, ... not just for the Air Force," to see if "we [can] get some additional assistance for some additional needs."

"We're not done yet," James acknowledged. There could "well be more [steps] to come. ... We didn't get here overnight and we're not going to fix it overnight."

(For more on the nuclear mission, see "Global Strike Evolution," in this issue.)

JAPAN'S NEW CO-SECURITY SPHERE

Japanese combat forces may now deploy and fight abroad, after Prime Minister Shinzo Abe in July announced a change

to the country's constitutional Article 9 that in 1947 renounced Japan's right to wage war. The change, made by the Japanese Cabinet, circumventing a formal process, was met with praise from the US, hostility from China, wariness from South Korea, and disapproval from many Japanese citizens, who protested the move in the streets of Tokyo. The announcement is considered Japan's most significant military policy change in 60 years.

Japan's Self-Defense Forces are among the largest and best-equipped in Asia, but they've been chiefly confined to the region immediately surrounding Japan and have limited offensive capabilities. Article 9 has been interpreted to exclude Japan from possessing aircraft carriers, bombers, nuclear weapons, or intercontinental ballistic missiles. Military deployments have been few: In 2004, Japan sent a noncombat civil reconstruction team to Iraq, and it raised a huge domestic furor.

The policy change eases Japan's ability to join in "collective defense" with other countries. If, for example, US ships near Japan came under attack, Japan can now respond with force. Prior to the change, Japan could only rescue the survivors of such an attack. The move also eases Japanese participation in United Nations peacekeeping and humanitarian relief operations.

The change enumerates several conditions where force may be used. In the case of a country Japan has "close ties" with, the JSDF may employ the minimum force necessary to help protect that country if Japan itself is under threat, if there is clear danger that people's lives and liberties are at stake, and if there is no "appropriate" alternative.

Defense Secretary Chuck Hagel issued a statement welcoming the move, saying it will allow Japan's Self-Defense Forces "to engage in a wider range of operations and make the US-Japan alliance even more effective." He called the change "an important step for Japan as it seeks to make a greater contribution to regional and global peace and security." He also said it would make it easier "to modernize our alliance through the revision of our bilateral guidelines for defense cooperation."

Abe called the move a natural extension of Japan's ability to defend itself, given the changing nature of alliance defense. He specifically ruled out, however, the idea of Japan using force "to defend foreign forces."

In a news conference after the decision to modify Article 9 was accepted, Abe said there's "no change in the general principle that we cannot send troops overseas."

China reacted to the announcement with hostility. The Japanese government has fabricated a threat from China "to promote its domestic political agenda," said China's Foreign Ministry spokesman at a press conference in Beijing. "We demand that Japan respect the reasonable security concerns of its Asian neighbors," he said.

The South Korean Ministry of Foreign Affairs said it will monitor the situation to ensure that Japan pursues "collective defense" in a transparent manner respectful of Korean sovereignty. Various party leaders in South Korea's national assembly expressed shock and anger at the Article 9 change, complaining that Japan has still not adequately apologized for privations and atrocities inflicted on Korea during World War II.

Making the change without going through a formal, national process sparked large demonstrations in Tokyo, numbering thousands of people. One man set himself on fire in protest.

Although technically in force now, the change to Article 9 must be approved by the Diet.

VIRTUALLY SUPERIOR

The really innovative techniques and tactics that will give the Air Force its edge in future conflicts will be developed and

trained with in the simulator—not in live flying, according to Air Combat Command's latest strategic plan.

The change was revealed in "Securing the High Ground 2014," released by ACC Commander Gen. Gilmory Michael Hostage III in June. The document lays out ACC's response to changing world conditions—particularly the financial crunch, which is restraining training and modernization, and the proliferation of advanced air combat technologies worldwide.

The strategic plan warns that as potential adversaries become more sophisticated in their airpower capabilities, "it is increasingly difficult to provide realistic adversaries and environments for live training." Moreover, it's getting tougher "to hide our countertactics from our adversaries" in live-fly exercises. Consequently, ACC proposes to "flip the realistic training paradigm."

Live, "hands-on training" in actual aircraft will provide foundational "blocking and tackling" skills, according to ACC, but "the virtual and constructive environment will become the primary method for advanced training in all aircraft, not just our fifth generation assets," such as the F-22 and F-35.

That issue is not just what potential enemies might see with satellites or learn from foreign participants in US air exercises, however. "ACC cannot afford to waste valuable resources and must focus on new, efficient ways of doing business," according to the document. Hostage has suggested in recent years that simulator time may have to eclipse live flying to keep crews sharp.

The ACC plan stacks its priorities as follows: emphasizing new systems over fixing up old ones; preventing "hollow force" lapses in readiness; accepting "short-term risk for long-term capability"; and a "whole, integrated approach" in which all programs compete for funding within their portfolios, "including special access," or deeply classified, projects.

ACC "has had to cut viable programs" to recapitalize some critical waning capabilities, "which were not named." "When necessary, we will continue to sacrifice capacity for the capabilities we need to win in the highly contested environment." ACC still thinks it will have to "selectively refurbish elements" of its legacy force, though it "has found it difficult to fund fourth generation fighter" upgrades. The capacity offered by these aircraft remains important, though, and "further in the future, we may need to reorient missions to extend the lifespan and capacity of the reserve component."

When forced to choose, however, ACC will opt for newer systems rather than stretching the utility of old ones, even if it means some "capacity risk."

"The alternative is arriving in the middle of the next decade with a now 45-year-old fighter and bomber fleet that is neither tactically relevant nor capable of providing sufficient global power and an industrial base that has withered away."

One of ACC's core functions, air superiority, faces many "challenges," according to the strategic plan.

Rapidly evolving threats and "lack of procurement funding for our most critical air-to-air weapons have degraded" air superiority kill chains. The development of tougher and denser air defenses are "outpacing our ability to recapitalize and refurbish air superiority assets." The answer is to upgrade fourth gen fighters where possible, but "keep fifth generation assets fully capable in the face of an evolving threat."

The Air Force is pursuing a \$7 billion program to upgrade its 185 F-22s and recently signed a \$10 billion contract to keep the B-2 bomber up to snuff while the service pursues its new Long-Range Strike Bomber, which ACC's roadmap says will be available "in the midterm."

Also, the document said, "We must continue to focus on a mix of preferred weapons which, when fully integrated with these delivery platforms, offer a superior level of survivability and standoff range required to mitigate risk, irrespective of the scenario." ■

House Passes Fiscal 2015 Defense Spending Bill

The House approved HR 4870, its version of the Fiscal 2015 defense spending bill, June 20, providing \$491 billion in discretionary funding and \$79.4 billion for overseas contingency operations, including the war in Afghanistan.

Among the Air Force-related amendments adopted on the House floor is one introduced by Rep. Candice Miller (R-Mich.) that blocked the Air Force from using Fiscal 2015 funds to divest, retire, transfer, or place into storage any A-10 aircraft or to dissolve any A-10 units.

An amendment brought forth by Rep. Jon Runyan (R-N.J.) that prohibits KC-10 retirements in Fiscal 2015 also passed. The House in May passed its version of the Fiscal 2015 defense authorization bill, which also prevents divestiture of the A-10 fleet.

Medal of Honor Awarded to Marine

President Barack Obama awarded the Medal of Honor to retired Marine Corps Cpl. William "Kyle" Carpenter, 24, on June 19 for his conspicuous gallantry during a 2010 battle in Afghanistan where he was seriously injured.

"Anybody who has had a chance to get to know this young man knows you're not going to get a better example of what you want in an American or a marine," said Obama during the White House ceremony. "The Medal of Honor is presented for gallantry on the battlefield. But today, we also recognize Kyle Carpenter for his valor since in the hard fight for recovery," said Obama.

Carpenter lunged toward an enemy grenade to shield a fellow marine from the grenade blast during a firefight on Nov. 21, 2010, in Marjah, Afghanistan.

Initially pronounced dead on arrival at a field hospital, he ultimately endured two-and-a-half years of recovery in a military hospital.

"The enemy killed me. I came back, I ran a marathon, completed a Mud Run, and jumped from a plane. I won't ever quit. I am just getting started," said Carpenter in a Marine Corps video.

Senior Leadership Nominations

President Barack Obama nominated Army Gen. John F. Campbell, Army Lt. Gen. Joseph L. Votel, and Adm. William E. "Bill" Gortney to lead NATO forces in Afghanistan, US Special Operations Command, and US Northern Command, respectively, announced Defense Secretary Chuck Hagel on June 24.

Campbell, currently Army vice chief of staff, would replace Marine Corps Gen. Joseph F. Dunford Jr., whom Obama has tapped to be Marine Corps Commandant.

Votel, Joint Special Operations Command boss, would receive a fourth star and succeed Adm. William H. McRaven at SOCOM's helm.

Gortney, who now oversees US Fleet Forces Command, would take the place of Army Gen. Charles H. Jacoby Jr. at NORTHCOM. Gortney would also become head of NORAD.

Officer Movements

President Obama in July nominated Gen. Herbert J. "Hawk" Carlisle to be commander of Air Combat Command at JB

Langley-Eustis, Va. Carlisle has served as commander of Pacific Air Forces at JB Pearl Harbor-Hickam, Hawaii, since August 2012.

Obama also on July 15 nominated Lt. Gen. Lori J. Robinson for a fourth star and for assignment as commander of Pacific Air Forces. She has been ACC vice commander since May 2013.

★ screenshot



NATO Ministers Finalize Post-Combat Afghanistan Plans

NATO foreign ministers meeting in Brussels endorsed the Alliance's post-combat mission in Afghanistan on June 25, according to a news release. They came together on the "detailed operational plan" for Operation Resolute Support, the NATO-led mission to train, advise, and assist Afghan security forces that will commence once the current International Security Assistance Force combat mission concludes at the end of the year, said NATO Secretary General Anders Fogh Rasmussen.

However, the Afghans must take the next step by signing the follow-on security agreements that will allow NATO troops to remain in the country, he said. The Alliance has not decided on the exact figures for the Resolute Support force, but there have been "concrete announcements" from several countries committing to the future mission, said Rasmussen at a press conference later that same day.

A force-generation conference is scheduled for the beginning of July, where the announcement of final troop commitments should occur, he said.

"This will not only be a US mission," said Rasmussen. "Other allies and partners will contribute and some of them in a quite significant manner," he said.

Northrop Grumman Awarded \$9.9 Billion for B-2 Work

The Air Force awarded Northrop Grumman a contract with a total potential value of \$9.9 billion for modernization and sustainment of the B-2 stealth bomber fleet out as far as May 2024.

This Flexible Acquisition Sustainment Team II contract is an indefinite-delivery/indefinite-quantity arrangement covering B-2 enhancements, support equipment, and tasks such as sustainment engineering and software maintenance, according to the contract write-up in the Pentagon's list of

07.8.2014

A 64th Aggressor Squadron F-16 (left) flies in formation with a 65th Aggressor Squadron F-15 over the Nellis Test and Training Range in Nevada. The fighter aircraft provide realistic threat replication for Red Flag exercises and test and training operations. Part of the 57th Adversary Tactics Group, the aircraft bear the latest paint schemes flying in each squadron.



Photo by Jim Haseltine



Maintaining Stealth: In Southwest Asia, Lt. Col. David Elliot, 27th Expeditionary Fighter Squadron commander, climbs into an F-22, where a ground crew member sits in the cockpit. A Raptor Aircraft Maintenance Unit of more than 100 airmen from JB Langley-Eustis, Va., were maintaining the stealth fighters in June in support of operations.

major contracts for June 3. Also included are programmed depot maintenance and other interim contractor support.

"We're delighted to be partnering with the Air Force with the B-2. It is such an important [component] of our national security," Northrop Grumman spokesman Brooks McKinney told *Air Force Magazine* on June 4. At the time of the contract award, the Air Force issued a \$6.4 million task order for work on the B-2's Common Very Low Frequency Receiver Increment 1.

Normalizing ICBM Sustainment

The Air Force intends to apply the estimated \$300 million in additional funding it is making available to the ICBM fleet over the next five years to developing better Minuteman III depot maintenance and sustainment practices, said Lt. Gen. Stephen W. "Seve" Wilson, commander of Air Force Global Strike Command, on June 24.

The command is undertaking an effort to "normalize" ICBM sustainment, said Wilson, during an Air Force Association-sponsored talk in Arlington, Va. Today, the Air Force doesn't have a "good demarcation" of the components that make up the entire Minuteman weapon system, he said. The challenge is that an ICBM is largely perceived as being a "no-fly system," not sustained by the Air Force like aircraft systems. "It's an always-fly system though. ... I can't fund it as spare parts or ground equipment, so we have to change the mindset on that," said Wilson.

Programmed depot maintenance for ICBMs is more akin to what the Air Force does with an aircraft during a phase inspection, not a comprehensive depot visit, Wilson said. "We can't just fly to fail on every item, which is what we've done in the past."

CRH To Be Black Hawk 2.0

The Air Force announced that Sikorsky Aircraft of Stratford, Conn., would receive \$1.28 billion to develop the service's Combat Rescue Helicopter. The new helicopter replaces the HH-60G Pave Hawk and will be "essentially ... a long-range, highly missionized Black Hawk" for the Air Force, Tim Healy, Sikorsky's CRH program director, told *Air Force Magazine*.

The contract covers procurement of the first four helos, to be designated test assets, said Healy. However, under the contract, Sikorsky is "responsible [for making] sure that [test aircraft are] in an operational configuration, and they'll be then transferred to the Air Force in either a training or operational load," he said.

The aircraft will be built to an Air Force standard and will be mission-ready right off the line, instead of requiring postproduction modification to meet Air Force standards. The CRH will have "significant differences and improvements" over the HH-60, including a much-improved rotor blade, a more powerful engine, a stronger airframe, a different core, [and] a different tip treatment that makes it much more efficient and produces more lift. Healy said the CRH will be "much more efficient in cruise flight," allowing it to travel 50 to 60 more nautical miles than its predecessor on the same amount of fuel.

The first two Sikorsky helicopters under the recently awarded CRH contract will be delivered to the Air Force in 2018, with two more to follow in 2019.

If the Air Force exercises all contract options and buys 112 helicopters, work under this contract would have a total value of some \$7.9 billion, according to Sikorsky. Lockheed Martin is the major subsystems supplier on Sikorsky's industry team. —Autumn A. Arnett

Iraq's Bitter Returns

Iraq's leadership and armed forces this summer failed to blunt the speedy terrorist takeover of large parts of the country. Given what the United States paid in blood and treasure to secure Iraq's freedom, this failure is a bitter pill, said Joint Chiefs of Staff Chairman Army Gen. Martin E. Dempsey June 19.

"Like many of you, I was disappointed at how quickly the situation in Iraq deteriorated as well as the rapid collapse of many Iraqi units," said Dempsey in a message to US service personnel.

"The men and women who served in Iraq did exactly what we asked," Dempsey told Senate lawmakers the previous day during testimony on Capitol Hill.

"Al Qaeda-inspired extremists raising flags over Iraq's embattled cities triggers in me ... bitter disappointment that Iraq's leaders failed to unite for the good of their people," he stated.

President Barack Obama dispatched troops to support the Iraqi forces, and as of July 1, there were 650 military personnel with boots on the ground in Iraq, out of a total

authorized force of 770, according to Pentagon spokesman Rear Adm. John Kirby.

The personnel either are reinforcing security at the US Embassy in Baghdad and nearby support facilities or serving with assessment and advisory teams at the joint operations center in Baghdad, according to a July 1 release.

Many of the US forces arrived in Iraq on June 29 from US Central Command, along with a detachment of helicopters and remotely piloted aircraft that will be used to "bolster airfield and travel route security," said Kirby.

The Pentagon has already confirmed the US is operating some armed RPAs in Iraqi airspace for ISR purposes. "We obviously are watching the situation very closely, ... given the limits of information that we have," Kirby said.

Also on July 1, Secretary of State John F. Kerry released a statement welcoming what he called an "enormous and very significant commitment" by Saudi Arabia "to help its neighbor." Saudi Arabia's \$500 million pledge is part of a growing international humanitarian response to the crisis that Kerry said "is worsening by the day."

No-Fun Nuclear Holiday

The United States is falling behind potential adversaries, such as Russia and China, in modernizing its nuclear deterrent, and the bills for that modernization are coming due at the worst possible time, said Maj. Gen. Garrett Harencak, strategic deterrence chief on the Air Staff.

"Almost everybody else is modernizing, certainly at a pace beyond ours," he said during a Capitol Hill speech on June 17 sponsored by the Air Force Association, the Reserve Officers Association, and the National Defense Industrial Association. "Part of the problem is a lot of these things should have been taken care of 25 years ago. We took a procurement holiday when it comes to strategic nuclear modernization" while our rivals have, in many cases, kept a steady pace since the end of the Cold War, he said.

Now, with budget sequestration in force, and money becoming scarcer, the United States is saddled with having to upgrade or replace everything from ICBMs, bombers, and submarines, to warheads, cruise missiles, and command and control infrastructure at once, said Harencak. "It's just a fact," he said.

In Reserve: Airmen assigned to the 910th Airlift Wing discuss upcoming missions on a flight line in Southwest Asia at sunset. The Reservists came from Youngstown ARS, Ohio, and joined up with 153rd Airlift Wing Air National Guardsmen deployed from Cheyenne Arpt., Wyo. The newcomers now man the 737th Expeditionary Airlift Squadron and the 386th Expeditionary Aircraft Maintenance Squadron for tactical airlift and medical evacuation missions.



USAF photo by SSGT. Vernon Young Jr.

USAF photo by SMSgt. Eric Peterson



Another Hitch: SSgt. Michael Newsom Jr. salutes his father, Lt. Col. Michael Newsom (on screen), at the conclusion of his re-enlistment ceremony. Through a video teleconference, the senior Newsom watched his son's ceremony in Southwest Asia from his own location at another Southwest Asia facility. The younger Newsom—a crew chief from Grand Forks AFB, N.D., and deployed with the 380th Air Expeditionary Wing—had served for seven years before re-upping.

Bender Tapped To Be Chief Information Officer

President Barack Obama nominated Maj. Gen. William J. Bender for promotion to the rank of lieutenant general for assignment as the Air Force's chief of information dominance and chief information officer, announced the Pentagon on June 10. Bender has been deputy chief of the Office of Security Cooperation-Iraq in Baghdad since July 2013. If the Senate approves Bender's nomination, he would replace Lt. Gen. Michael J. Basla, who has held these positions on the Air Force Secretariat since June 2012.

Priceless Intangible Rewards

When airmen join the Air Force, they may do it for educational opportunities, financial stability, to find direction in life, or continue a family tradition, wrote CMSAF James Cody in "Roll Call" June 11.

"The reasons vary greatly, and none are wrong," he wrote. Over time, however, those motivations "must evolve," he stated. "We must grow to understand that service is about more than direction, pay, or education. It is about protecting American ideals, embracing the responsibility that comes with freedom, and strengthening our country through an unbreakable bond with the comrades who serve by our side," wrote Cody.

Airmen must never forget that it is a privilege to be an airman and an honor to defend the nation, he said. When taking the oath to support and defend the Constitution, "remember what it stands for; remember the men and

women who have taken the solemn oath before you; and remember that service is a calling with intangible rewards: pride, service, and duty," wrote Cody. "These will always be priceless."

Schriever Unit Tapped To Control New Satellites

The 1st Space Operations Squadron at Schriever AFB, Colo., will assume control of the Air Force's two new Geosynchronous Space Situational Awareness Program (GSSAP) satellites.

The Air Force planned to launch the two space-surveillance satellites into orbit July 23 from Cape Canaveral AFS, Fla., stated a June 10 press release. Airmen from

By the Numbers

\$58.6 billion

The amount requested by the White House on June 26 to fund the Defense Department's activities in Afghanistan and other overseas contingency operations. The funding request is \$20.9 billion less than the \$79.4 billion placeholder figure that the Pentagon provided to Congress earlier this year. The OCO funding would also cover the costs of the Obama Administration's new Counterterrorism Partnerships Fund, including a new Syria-Regional Stabilization Initiative and the European Reassurance Initiative. The White House requested \$4 billion and \$925 million, respectively, for those two areas.

The War on Terrorism

Operation Enduring Freedom

Casualties

As of July 15, a total of 2,333 Americans had died in Operation Enduring Freedom. The total includes 2,330 troops and three Department of Defense civilians. Of these deaths, 1,829 were killed in action with the enemy, while 504 died in noncombat incidents.

There have been 19,880 troops wounded in action during OEF.

First All-Afghan C-130 Sortie

The Afghan Air Force flew a C-130 training sortie June 16 without aid from US advisors for the first time, announced US Air Forces Central Command.

AAF Col. Aimal Sayedi, Fixed Wing Squadron commander, said he and his crew were "very excited and very nervous about this flight, to do it without any help of others and an all-Afghan crew." That's a very big step, he said.

The C-130H flew from Kabul to Kandahar Airfield, Afghanistan, on this mission. "The [Afghan] air force is back to life and we can do cargo, [casualty evacuation], and passenger movement from one province to another province," said AAF 1st Lt. Khial Sinwari, copilot on the flight, after the sortie.

Air Force instructors from the 538th Air Expeditionary Advisory Squadron have been training Afghan crews to operate the C-130H for the past 11 months. The Afghans conducted the self-sufficient flight eight months sooner than expected, according to AFCENT's June 18 press

release. The AAF received its first C-130 last October, after the United States scrapped the deal providing refurbished C-27As.

Moody Preferred Site for Afghan A-29 Training

Moody AFB, Ga., is the Air Force's preferred location to train Afghan air force pilots and maintainers how to operate the AAF's A-29 Light Air Support aircraft, announced service officials on June 25.

The Air Force selected Moody "because the airfield and airspace are available without disruption during the required time frame, and suitable facilities are immediately available for the new occupants to move into," said Timothy K. Bridges, the service's deputy assistant secretary for installations.

Moody is also "the lowest cost option," he said in the service's news release. The Air Force also identified Mountain Home AFB, Idaho, and Shaw AFB, S.C., as the alternative sites for this training.

The Pentagon is procuring a fleet of 20 A-29s for the Afghans to give them indigenous air interdiction, close air support, and aerial reconnaissance capabilities. Under current plans, the A-29s may arrive at Moody as early as September for initial cadre training. The first Afghan trainees are expected to begin training in February 2015, stated the release.

The initial proposed commitment for this training entails a limited presence at Moody into 2018.

the squadron were to take control of them following initial orbital checkout and were to then oversee the satellites' day-to-day operations.

"This marks a great milestone for the 1st SOPS and Air Force Space Command," said Gen. William L. Shelton, AFSPC commander. "With the alignment of the GSSAP mission to the 1st SOPS, we will achieve new synergies within the space situational awareness mission area," he said.

The squadron already oversees the Air Force's Space Based Space Surveillance satellite and Advanced Technology Risk Reduction spacecraft, both operating in lower altitude orbits.

F-35 Software Delay Won't Hit IOC

There's about a six-month lag in testing the version 3F software for the F-35 strike fighter, but it's not affecting the services' initial operational capability yet, according to program leaders. In a teleconference with reporters on June

12, Pentagon acquisition executive Frank Kendall said IOC for the Marine Corps and the Air Force, with the 2B and 3I software builds, respectively, is on track.

The services are still expected to declare IOC on time—the Marine Corps with the 2B software in July 2015 and the Air Force with 3I software in August 2016. The 3F version that every user will eventually have is behind schedule. Lt. Gen. Christopher C. Bogdan, F-35 program executive officer, said, "If we don't do anything better over the next two or three years," then the 3F deployment may be late, but he said there's still some schedule margin remaining.

Kendall said it's premature to think about whether the Navy—intending to declare IOC with 3F software in 2018—would slip IOC or declare it with an earlier software build.

"That's a decision the Navy will make," said Kendall, but he doubts the service will make any changes "unless forced to."

DLA Aims for 30 Percent Less

The Defense Logistics Agency is downsizing, aiming to be nearly a third smaller over the next five years, said agency chief Vice Adm. Mark D. Harnitchek on June 12. By 2019, DLA will shrink from a \$40 billion enterprise to one of about \$27 billion, he told defense writers in Washington, D.C. "We've banked about \$3 billion already," he said.

Of the \$13 billion goal, \$5 billion will come from operating efficiencies and the rest from simply buying less stuff, said Harnitchek.

In the last two years alone, DLA has taken "about \$5 billion of inventory" out of the system, he said. With less to store, he's also been able to get rid of "45 football fields' [worth] of covered storage," World War II-vintage warehouses, "that are coming down."

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Senior Staff Changes

CONFIRMATIONS: To be Lieutenant General: John F. Thompson. To be AFRC Brigadier General: Donald R. Lindberg.

NOMINATIONS: To be General: Herbert J. Carlisle, Lori J. Robinson. To be Lieutenant General: William J. Bender, James K. McLaughlin.

CHANGES: Brig. Gen. (sel.) Mark A. Baird, from Dir., Space Superiority Systems Directorate, SMC, AFSPC, Los Angeles AFB, Calif., to Cmdr., AF Installation Contracting Agency, Office of Asst. SECAF for Acq., Wright-Patterson AFB, Ohio ... Brig. Gen. Thomas L. Gibson, from Dir., Jt. Integration, DCS, Ops., P&R, Pentagon, to Vice Cmdr., USAF Expeditionary Ctr., AMC, JB McGuire-Dix-Lakehurst, N.J. ... Brig. Gen. Robert J. Skinner, from Dep. Cmdr., Air Forces Cyber, AFSPC, Fort Meade, Md., to C/S, DISA, Arlington, Va. ... Brig. Gen. Kenneth E. Todorov, from Dir., Jt. Integrated Air & Missile Defense Orgn., Jt. Staff, Pentagon, to Dep. Dir., Missile Defense Agency, Office of USD for Acq., Tech., and Log., Fort Belvoir, Va.

COMMAND CHIEF CHANGES: CMSgt. Harold L. Hutchison, from Chief, AF CMSgt. Mgmt. Office, Pentagon, to Command Chief, PACAF, JB Pearl Harbor-Hickam, Hawaii ... CMSgt. Steve K. McDonald, from Command Chief, PACAF, JB Pearl Harbor-Hickam, Hawaii, to Command Chief, ACC, JB Langley-Eustis, Va. ■

With reduced inventory, aided by better models of what, how much, and when to buy goods, as well as how long to keep them, efficiency and performance have improved, said Harnitchek. The 30 percent overall reduction is on par for any post-drawdown period, he said.

Countering Weapons of Mass Destruction

The Defense Department released a new strategy for countering weapons of mass destruction June 30. The 32-page document, rescinding and replacing the 2006 WMD strategy, "emphasizes early action through pathway defeat, shaping the environment to dissuade actors from pursuing WMD, and cooperating with partners to achieve countering WMD goals," wrote Defense Secretary Chuck Hagel in the foreword.

It also "specifies desired end states, prescribes priority objectives, delineates a strategic approach for achieving those objectives, and outlines the countering WMD activities and tasks necessary for success." Specifically, the document's executive summary outlines three end states: "no new WMD possession, no WMD use, and minimization of WMD effects."

Hold Lifted on Egypt Military Aid, but Not Yet on F-16s

The United States has unlocked some, but not all, of the military aid to Egypt it froze last year due to widespread unrest in that nation, said Secretary of State John F. Kerry.

Delivery of 10 AH-64 attack helicopters will take place soon, said Kerry in remarks with Egypt's Foreign Minister Sameh Shoukry in Cairo on June 22 following Kerry's meeting with newly elected Egyptian President Abdel Fattah el Sisi. Those assets are expected to boost the Egyptian government's counterterrorism operations in the Sinai Peninsula.

In addition, Congress approved the release of approximately \$575 million of the \$650 million in foreign military financing for Egypt that the Obama Administration requested, said senior State Department officials on June 21. Most of those funds are going to the sustainment of systems that the Egyptians already operate, as well as training, they said.

Changes at Veterans Affairs

A Department of Veterans Affairs audit found "a strong basis to commence immediate action" to correct "systemic" problems within the VA medical care system. Among the findings, the scheduling process for care is "overly complicated," resulting in a "high potential [to create] confusion among scheduling clerks and front-line supervisors," stated the reports.

The audit took place from May 12 to June 3. The VA's target of a 14-day waiting period for new appointments is "not attainable," as the demand for services exceeds the number of provider slots available, the auditors determined.

They also found that staff fabricated forms at the instruction of supervisors, in some cases, or utilized "inappropriate practices" to make waiting times for veterans appear more favorable than they were. The report, released June 9, cited staffing challenges, particularly in clinics where there were either not enough providers to meet the need or not enough administrative support.

Excessive wait times for veterans to receive VA medical care reportedly resulted in scores of veterans' deaths. Outrage over this led to the resignation of Eric K. Shinseki as VA secretary on May 30.

President Barack Obama, in late June, nominated former Procter & Gamble CEO Robert A. McDonald, a one-time Army Ranger, to replace Sloan D. Gibson, who stepped in as acting secretary after Shinseki left.

Defense Secretary Chuck Hagel welcomed McDonald's nomination, saying that McDonald would be "well-equipped" to lead the VA if confirmed. "Taking care of our veterans is as high a priority as this country has, and I look forward to working closely with Bob and Sloan to further strengthen and improve DOD-VA collaboration and the lives of our veterans," said Hagel in a June 30 statement.

In addition to naming a new secretary, Veterans Affairs medical and health care directors will conduct monthly visits to VA clinics to inspect scheduling practices.

While those transfers are going forward, Pentagon spokesman Cmdr. Bill Speaks told *Air Force Magazine* on June 23 that the handover of Egypt's new-build F-16 fighters is still on hold.

Greaves Takes Helm of Space Shop

Lt. Gen. Samuel A. Greaves took command of the Space and Missile Systems Center during a ceremony at Fort MacArthur, Calif., on June 19. Greaves succeeded Lt. Gen. Ellen M. Pawlikowski, who had led SMC, the Air Force's space acquisition shop, since June 2011. Gen. William L. Shelton, Air Force Space Command boss, presided over the ceremony.

Greaves received his third star prior to assuming SMC's helm. He comes to the center from the Missile Defense Agency, where he served as deputy director since August 2012. It's not his first stint with SMC; from August 2009 to February 2011, Greaves was the center's vice commander.

Pawlikowski is on her way to her next assignment: military deputy in the Air Force's acquisition office.

The Senate approved Greaves' and Pawlikowski's nominations for their new roles in May. ■

By Robert S. Dudney

Breedlove on Force Cuts

"I have seen some of the preliminary plans or results [for US forces in Europe], ... and we're looking at at least reductions of our F-15 force in Europe. ... I believe our force levels in Europe are about right, even absent the latest developments in Ukraine, and that we should take a knee and make no permanent reductions to our existing force structure. In fact, we may need to add additional rotational forces to cover the sustained, persistent presence that we are now envisioning. ... We should now pause and determine, 'Should we continue with any of the program reductions that are in the plan for Europe?'"—**USAF Gen. Philip M. Breedlove, commander of US European Command and Supreme Allied Commander, Europe, Pentagon news conference, June 30.**

As Reported in "Duh!" Magazine

"Public optimism about the potential outcome of these negotiations has not been matched, to date, by the positions they [Iranians] have articulated behind closed doors. ... There remains a discrepancy ... between Iran's professed intent with respect to its nuclear program and the actual content of that program to date."—**Secretary of State John F. Kerry, on Iran's push to develop nuclear arms, op-ed, Washington Post, June 30.**

Straight Talk, Petro Style

"We must be united, because we are fighting to free our land from dirt and parasites."—**Ukraine President Petro Poroshenko, referring to his war on Russian-backed rebels, Reuters, July 1.**

Breedlove on Mother Russia

"For the last 12 to 14 years, we've been looking at Russia as a partner. We've been making decisions about force structure, basing, investments, et cetera, et cetera, looking to Russia as a partner. Now what we see is a very different situation."—**USAF Gen. Philip M. Breedlove, commander of US European Command and Supreme Allied Commander, Europe, Pentagon news conference, June 30.**

Japan Steps Out

"During the 67 years since the constitution of Japan came into effect, the security environment surrounding Japan

has fundamentally transformed and is continuing to evolve. ... No country can secure its own peace only by itself. ... It is important for the [self-defense forces] and the United States armed forces to respond seamlessly in close cooperation to a situation where an attack occurs against the units of the United States armed forces currently engaged in activities which contribute to the defense of Japan. ... To date, the government has considered that 'use of force' ... is permitted only when an 'armed attack' against Japan occurs. However, ... in the future, even an armed attack occurring against a foreign country could actually threaten Japan's survival. ... The government has reached a conclusion that ... when an armed attack against a foreign country that is in a close relationship with Japan occurs, and as a result threatens Japan's survival, ... and when there is no other appropriate means available to repel the attack, ... use of force to the minimum extent necessary should be interpreted to be permitted under the constitution."—**Japan's reinterpretation of its pacifist constitution to allow its forces to engage in collective defense operations, released by its Ministry of Foreign Affairs, July 1.**

Learning Disabilities

"They also can't do calculus after the first week. [The learning of the honor code] is an educational and developmental process. Some take longer than others, and some don't get it. ... We don't like it when people don't make it, but some people aren't fit to be here. Part of the process of the academy is we find people who aren't suitable to be lieutenants in the Air Force, and so we identify that, and they leave. And it's a tiny minority of our cadet wing. We'd like to think we're perfect, but we're not."—**Lt. Gen. Michelle D. Johnson, superintendent of the Air Force Academy, on a recent cheating scandal that resulted in expulsion of 11 cadets, Air Force Times, June 27.**

Get the Net

"In the United States today, the names Apache, Comanche, Chinook, Lakota, Cheyenne, and Kiowa apply not only to Indian tribes but also to military helicopters. Add in the Black Hawk, named for a leader of the Sauk tribe. Then there is the Tomahawk, a low-altitude missile, and a drone named for an Indian chief,

Gray Eagle. Operation Geronimo was the end of Osama bin Laden. Why do we name our battles and weapons after people we have vanquished? ... Because the myth of the worthy native adversary is more palatable than the reality—the conquered tribes of this land were not rivals but victims, cheated and impossibly outgunned. ... Perhaps [critics] outraged by the [NFL's] Redskins name could turn their letter-writing pens on the Defense Department next."—**Boston Review editorialist Simon Waxman, op-ed in Washington Post, June 26.**

Musk Theorem Meets ...

"I don't understand what's taking so long. The Falcon 9 obviously works. It's not as though the Air Force is changing the design of the rocket. They're really just learning about it. That's what the certification process is. So I don't understand why it should take so long to learn about the rocket. That doesn't make sense to me."—**Elon Musk, CEO of SpaceX, on the difficulty of getting his company's Falcon 9 approved for USAF launches, Defense News, June 28.**

... Pawlikowski Corollary

"Mr. Musk is a very successful entrepreneur. I think what you're seeing reflected in his comments is his approach to life. I don't take it personally for the Air Force because I think that's in [his] nature—he's been very successful in a number of areas in taking on the culture. I understand why the process that we use is frustrating to him, but I can also tell you: I'm not going to be the first SMC commander to lose a satellite on a launch."—**USAF Lt. Gen. Ellen M. Pawlikowski, then head of Space and Missile Systems Center, or SMC, Defense News, June 28.**

Bring Back Hulagu Khan

"The jihadists ... continue to consolidate their grip on Sunni Iraq. ... Welcome to the new Middle East caliphate, a state whose leader is considered the religious and political successor to the prophet Mohammed and is thus sovereign over all Muslims. The last time a caliphate was based in Baghdad was 1258, the year it was conquered by the ravaging Mongols. Now the jihadists aim to do the ravaging."—**House editorial, Wall Street Journal, June 29.**

GLOBAL STRIKE

Evolution

By Marc V. Schanz, Senior Editor



More changes are in the works at Air Force Global Strike Command—but this time, leaders say, airmen are taking charge.

Five years after USAF's nuclear communities were united, more change is in the works—this time from the bottom up. Air Force Global Strike Command stood up five years ago, on Aug. 7, 2009, in the wake of Air Force

nuclear-mission problems that garnered national headlines. The command embarked on a series of reforms meant to reinvigorate USAF's nuclear enterprise that many believed had been neglected and under-resourced in the decades since the end of the Cold War.

For the first time since 1992 (when its predecessor, Strategic Air Command, was

inactivated) AFGSC consolidated under a single organization all of USAF's nuclear systems—including Minuteman III intercontinental ballistic missiles and the Air Force's dual-capable bomber force.

But new issues have pushed USAF's nuclear enterprise back onto the front pages recently. A series of startling lapses of discipline, culminating in an



SSgt. Glen Brott rappels down a breached personnel access hatch while SSgt. Scott Shirley provides security during a launch facility exercise at F. E. Warren AFB, Wyo., in February.

ICBM exam cheating scandal, exploded in January at Malmstrom AFB, Mont.

"This was a failure of some of our airmen," Air Force Secretary Deborah Lee James explained at a Jan. 15 Pentagon press conference, held alongside Chief of Staff Gen. Mark A. Welsh III. "It was not a failure of the nuclear mission," she insisted. Since then, USAF leadership and

Air Force Global Strike Command have worked rigorously to uncover the root issues underlying the lapses, ensure key investments pay off, and make some long-term changes to strengthen the "global strike culture," as several officials said.

The news has served as an uncomfortable reminder of the events that led to USAF's initial nuclear consolidation just

a few years ago. The incident spurring the creation of AFGSC was the transfer of nuclear cruise missiles from Minot AFB, N.D., to Barksdale AFB, La., in August 2007. The missiles were not supposed to have nuclear warheads on them. They were loaded onto an aircraft and flown to Louisiana. It was only hours after they arrived at Barksdale that the mistake was



USAF photo by SSgt. Jonathan Snyder

A B-52 takes off on a training sortie from Barksdale AFB, La., in February. The bombers are receiving the Combat Network Communications Technology upgrade, turning them into flying network nodes.

discovered. Heads rolled; the incident led to the dismissal of the serving Chief of Staff and Secretary of the Air Force in June 2008.

Today, additional corporate changes are already in the works. James, speaking with reporters in June, declared the AFGSC commanders should be a four-star general, and the head of the Air Staff's nuclear directorate (A10) should be raised from a two-star to a lieutenant general. "Rank matters," she said, and the extra star power would show that USAF is treating the nuclear mission as a core service competency.

Instead of the top-down scrutiny that followed the 2007 incident, however, AFGSC is largely responding to recent problems from the bottom up, with an initiative to put the tools for change in the hands of the airmen carrying out the mission.

Lt. Gen. Stephen W. "Seve" Wilson, AFGSC commander, said when the reports about Malmstrom first came to his attention, he called a nuclear community colleague for advice—Vice Adm. Michael J. Connor, who commands Submarine Forces. Wilson asked Connor if the Navy's sub community had any similar experience with lapses. Connor told Wilson about a prior effort to address the safety culture in nuclear submarine crews—led by the sailors themselves. It proved successful because it tapped into the perspective of key leaders among enlisted and officers working

Capt. Austin Fouts pilots a B-52 over a Nevada range on a live ordnance training mission, releasing CBU-103 and CBU-87 munitions.

in the community, who were closer to the problem.

The conversation led to USAF's Force Improvement Program, or FIP, which began in February. Several teams from across the Air Force and Navy nuclear communities were assembled, consisting of "informal leaders" from among the enlisted and officer ranks, said Wilson. Five areas were scrutinized in the ICBM force: operations, security forces, mission support, maintenance, and helicopter operations. The FIP teams reported directly to Wilson at Barksdale.

SHIFTING PATHS

"This was not an external look" at what was wrong, Wilson said in a May interview at his Barksdale headquarters. This was "by airmen, for airmen, ... the lieutenants, the captains, the tech sergeants." They

were tasked to go out and "to identify the obstacles to their success."

The effort stretched over months. It involved more than 1,800 surveys across the ICBM force's 20th Air Force, including some 840 interviews of airmen, commanders, family members, and other personnel. The review produced nearly 350 recommendations by late May.

Lt. Col. Russell Williford, the FIP office director at AFGSC headquarters, who led the day-to-day effort, said some of the initial observations came from James' immediate visits with the community when the cheating scandal emerged. They centered on the "cultural aspect" of the ICBM community—an environment driven by constant inspections—and a perception "that the human element has to be perfect, and that's hard to achieve," Williford said.

Some fixes are simple, he said, such as reducing micromanagement and giving more responsibility to the airmen performing their missions. One such fix was eliminating a "break safety report"—an extensive report required of security forces airmen about how they spent personal time. "That was micro down to the personal level, and it was an easy kill," Williford said.

Other reforms are more complex, and AFGSC plans to roll these out over the next year. The career path for missileers, for example, is shifting to a tour modeled on those in the aviation community.

Instead of pulling a four-year initial launch control tour and then being extended to be a trainer or evaluator—often at the same wing—missileers will now serve three years of missile crew duty followed by three years transitioning to instructor or evaluator. The new construct is called Three Plus Three.

USAF photo by SSgt. Jonathan Snyder





USAF photo by SrA. Jason Huddleston

During the FIP, it was discovered that many ICBM operators' experience levels were not commensurate with their time served, due to the heavy emphasis on testing.

If an officer did well on whatever test leaders valued, Williford said, he could easily get a coveted instructor billet within the first half of his tour. While a typical year's worth of alerts would be about 96 or so, Williford noted, many crew were logging only 200 alerts in a full four-year tour. The new construct should create an incentive to become more proficient and experienced in ICBM operations—and sooner. "The mission is the focus, not a test," he said.

Reformed tour lengths are now being implemented. To make the career field more attractive, ROTC scholarships for missileers are available again. Developmental training at the Vandenberg AFB, Calif., schoolhouse for ICBM crews is getting an overhaul to make it more "leadership- and empowerment-focused," Wilson said.

At its core, FIP is attempting to close the "say-do gap" across AFGSC's units. Nuclear missileers and aircrew believe in their missions, Williford noted, but some things they see cause them to wonder, "Is this really the No. 1 mission" in the Air Force? The FIP was meant to find ways to reassure people that the service is serious about the nuclear and global strike mission and will support and resource it accordingly.

The FIP provides a chance for the bomber community to question and validate its own culture and practices, said Maj. Gen. Scott A. Vander Hamm, commander of 8th Air Force, overseeing USAF's nuclear-capable B-2 and B-52 bombers.

"We took a look at 20th Air Force, but we are following up" with a review of the bomber procedures, Vander Hamm said. "When we do find things—and I think we will because of the nature of the bottom-up approach—[airmen] will identify things, and we will put heat and light behind it."

The reforms arrive just as AFGSC is modernizing and upgrading its legacy bomber force and exploring what its ICBM force will look like past 2030.

"For two legs of our triad, we spend about five percent of our budget. That's one percent of our [defense] budget. I think that's a pretty good value that provides strategic deterrence for our nation as well as assurance for our allies," Wilson said.

While he and other Global Strike officials note low operating costs for USAF's two nuclear legs, broad modernization of both is needed in the coming years to keep them credible. AFGSC's Eisenhower-era B-52s and its 20 stealthy B-2s are both being upgraded, with emphasis on command and control tools.

"There is no global power without command and control. We are spending a lot of time on that," Wilson said.

The B-52 is in the early stages of a fleetwide upgrade of avionics (the Combat Network Communications Technology, or CONECT, program). AFGSC has funding in place to improve 30 of its B-52Hs and plans to fit out the rest of the fleet eventually. The first CONECT-equipped jet aircraft arrived at Barksdale from Tinker AFB, Okla., in April, and flight testing resumed at Barksdale during the summer.

The new avionics, software, and mission system upgrades make the famous

B-2 Spirit of Indiana taxis at Whiteman AFB, Mo., during a nuclear operational readiness exercise.

bomber more lethal by turning it into a flying network node. This makes it even more effective for long-duration global power missions and improves its ability to operate on the edges of challenged, contested airspace.

"We have semi-jokingly called it the 'giant iPhone'" aircraft, Wilson said.

A B-52 with CONECT can now transmit targeting data and information to other aircraft securely to update battle plans and targets continuously through a sortie. This will have a strategic effect, Wilson said, allowing great flexibility for weapons upgrades—particularly standoff weapons, the BUFF's future forte. The B-52 is receiving a new data bus to allow internal carriage of Joint Direct Attack Munitions, which previously could only be carried on wing pylons.

CONECT-equipped B-52s could employ Joint Air-to-Surface Standoff Missiles, air launched decoys, and air launched jammers, creating a "formidable challenge" to an advanced adversary, even operating from well outside an enemy's air defenses, Wilson said.

The B-2 stealth bomber fleet also has a new tool to ensure worldwide connectivity: the High Performance Waveform (HPW). Previously, a B-2's radio connectivity was limited by a satellite's field of view, typically tied to a particular combatant command. Eighth Air Force would dispatch a comms team to air operations centers around the world to ensure continuous communications on global missions.

Prompted by an AFGSC challenge, two airmen came up with the new method



USAF photo by TSgt. Shane A. Cuomo

A B-2 is towed to a parking spot at JB Pearl Harbor-Hickam, Hawaii. Communicating with nuclear capable bombers anywhere on Earth is critical to AFGSC.

to link the various regional networks together and route them back to the 608th Air and Space Operations Center at Barksdale.

A few months before the headline-grabbing flight of two B-2s from the US to the Korean Peninsula during Exercise Foal Eagle in March 2013, Wilson said AFGSC tested the capability in the Pacific. This test helped assure the 608th AOC kept continuous contact during the high-profile, 38-hour mission.

“Often we make [this sort of thing] look easy, when in fact it is really hard,” Wilson said, explaining that weather interferes, tankers must be rerouted, and intelligence changes. The ability to command and control B-2s anywhere on the planet from 8th Air Force’s nerve center is critical.

The Minuteman III mission, meanwhile, is getting primary attention to improve its sustainment and rethink how airmen in the missile fields are equipped. ICBMs are not maintained the way USAF maintains its aircraft—something Global Strike Command wants to fix with a program called ICBM Normalization.

When ICBMs first deployed in the force during the Cold War, maintenance largely centered on missile wings. “Sustainment isn’t done that way anymore,” said Lawrence S. Kingsley, AFGSC’s director of logistics, installations, and mission support. ICBMs were largely forgotten in the shift to a more centralized sustainment system.

Part of the reason is definition. USAF regulations designate the mission of a Minuteman III as including only the missile itself—not the associated launch center, avionics, cables, or other components of the ICBM system.

“We began taking this on about a year ago, and it’s hard,” Kingsley said. An ICBM is not a flying system, so many funding and program practices designed for aircraft don’t make a ready fit.

For example, “we can’t fund on flying hours,” he said. One of the goals is defining what is included in the ICBM weapon system so the Air Force can fund it and build a sustainable program depot maintenance cycle.

In Fiscal 2015, Kingsley said, ICBM sustainment funding will be consolidated and managed by AFGSC headquarters, as a first step to reforming it in conjunction with Air Force Materiel Command and the Air Staff. “For the first time it addresses systemically the challenges the community lives with,” he stated.

AN EVOLUTIONARY MERGE

Defining the ICBM as a system should also improve modernization, as it will help AFGSC narrow requirements for the Ground Based Strategic Deterrent (GBSD), the designated replacement for the Minuteman III.

Brig. Gen. Ferdinand B. “Fred” Stoss, AFGSC’s director of plans and programs, noted the command is already on the “front edge” of the program set to begin replacing guidance systems in Fiscal 2015. The challenging part is to change out the system incrementally in place. The guidance sets, fuses, and eventually new solid rocket motors must all be transferrable from today’s Minuteman III to whatever replaces it after 2030.

GBSD “is not one individual thing,” Stoss said, echoing Kingsley. An analysis of alternatives was wrapping up in June

to chart a path for how to modernize the whole weapons system. Some components in the Minuteman will be replaced; others won’t be. “This will be complementary to the ‘normalization’ of ICBM sustainment,” Stoss said.

Model Defender is another new push, scrutinizing how security forces must be equipped for future nuclear missile field operations. On the agenda for the SF airmen who make up the analysis team are items such as camouflage patterns appropriate for the plains of Montana and Wyoming, vehicles better suited for the nuclear mission, and weapons, armor, and kit.

USAF already allocated funding for such equipment in Fiscal 2014 and is defining where it will make steady investment in the SF mission over the coming years.

The FIP has also prompted some hard questions across USAF’s global strike community about integrating bomber and missile forces.

At just five years old, “the command is still relatively new,” said Brig. Gen. Michael E. Fortney, AFGSC’s director of operations. Some cultural ties still need to be fostered among the command’s tribes.

The missile career field, when it joined AFGSC, was severed from Air Force Space Command, and some of the career and developmental roadblocks that have since arisen can be traced to this split.

“In the past, there was a lot of flow between space and nukes,” Fortney said, and a lot of those ties were cut. “We prob-

ably didn't do the best job in the world rolling that out to the crew force." Effort will now be applied to retooling the career "pyramid" for missile crews, to show what options they have in the wider Air Force.

"Part of that merge has been evolutionary," Fortney said. "It was one thing to bring [bombers and missiles] together in one command," he explained, but "now figuring out what we can learn from each other is the next step. [The] FIP will go a long way to addressing that."

Wilson and other senior leaders reject the notion that missileers have limited opportunities in the Air Force. Today, Wilson said, there are 12 general officers from the ICBM community. There are leadership opportunities across three wings and command jobs at US Strategic Command, at AFGSC, and elsewhere. "But we have not done a very good job, institutionally, for our Air Force so all members of [USAF] understand the nuclear piece of our Air Force."

As a result of the FIP, the command has seen that it can do better as far as talking between the two numbered air forces, Fortney said. In June, he brought the commanders of all the operations groups from 8th and 20th Air Force together at Barksdale. While some "flying side" practices are being adapted to the ICBM community, Fortney believes both

can learn from each other. Missile crews, for example, were among the FIP teams visiting 8th Air Force bomber units this summer.

The capability and speed of long-range standoff weapons has also sparked innovation at 8th Air Force. A new planning cell at the 608th AOC helps coordinate them across the Department of Defense now, Vander Hamm said. The SMAC, the Standoff Munitions Application Center, was up and running in May. As commander of 8th Air Force and component commander for global strike for STRATCOM, Vander Hamm can now coordinate and support standoff weapons operations from the 608th AOC, bringing together experts from both USAF and the Navy.

These assets are "very expensive," and this helps to pull them together from an operational planning perspective, Vander Hamm said. The SMAC looks at the holistic effect generated by cruise missiles and can adjust targets and tools as needed, from electronic warfare to cyber and space tools, to "better optimize" strikes, he said.

As it adapts its culture, AFGSC is invigorating its airmen and leaders to think more critically about nuclear and conventional deterrence and assurance. In December, the command conducted Strategic Vigilance, a four-day war game designed to explore Global Strike Command's ability to carry out operations across the stages of nuclear conflict. Tomorrow's global strike airmen, AFGSC leaders say, must adjust to a world where emerging nuclear

powers may think differently about threat and use of nuclear weapons.

Christopher T. Yeaw, AFGSC's chief scientist, is involved with many aspects of formulating war games and also teaches Nuclear 400—a capstone-level course for senior leaders that hones nuclear thinking among decision-makers.

"This is a course to raise their sights," Yeaw said. Complicated matters of deterrence, assurance, and how escalation works in the real world are all part of the course. "We have to get into the mind of the ally and adversary and try to understand this phenomenon. We need to define what we are deterring and under what circumstances," he said.

Building a culture takes time, but AFGSC leaders are optimistic about the future. It may be a sign of crumbling cultural barriers, Fortney commented, that he was the command's first director of operations from the ICBM community. The fact that Lt. Gen. James M. Kowalski, AFGSC's second commander, "brought an ICBM guy in to be his [director of operations] shows a desire to integrate," Fortney said.

The changes AFGSC is undergoing hasn't affected its abilities, its leaders said. "In the last 10 months, ... I have been reaffirmed that we are capable of performing this mission," Fortney said. "The challenges have not been challenges in readiness. ... This is one ready and lethal fighting force." ■

Capt. Robert Shannon and Capt. Brooke Lake go through a launch procedure checklist during training at Malmstrom AFB, Mont.



Photo illustration by Erik Simonson



By John A. Tirpak, Editorial Director

STAYING STEALTHY

USAF's Long-Range Strike Bomber program is beginning to take shape, but most details will be kept under wraps.

By this time next year, the Air Force expects to choose a company to develop and build the Long-Range Strike Bomber, its first new bomber since the last B-2 was christened in July 2000. The service plans to buy the top-secret LRS-B in a new way, applying lessons learned from previous big-ticket projects to ensure USAF gets enough aircraft to keep it fully capable in the global strike business for decades to come.

Air Force acquisition executive William A. LaPlante, in his first interview about the LRS-B, revealed the service's acquisition strategy, the timing of contracts and delivery, and the overall scheme of evolving it to meet rapidly changing threats and incorporate new technologies.

The bitter lesson the Air Force wants to avoid repeating is its experience with the B-2 itself. After investing heavily in leap-ahead stealth technologies and building a factory meant to produce 132 aircraft, the service wound up procuring just 21 usable airplanes and USAF was compelled to extend the lifespan of its B-52s yet again. Since then, the Air Force has been through at least three iterations of its future bomber: the "2018 bomber," the "Next Generation Bomber," and now the LRS-B.

"We're forcing ourselves to make sure we indeed have the money in the budget to afford what we start," LaPlante said. "The commitment" to keep the aircraft requirements in check "is key," he said.

Air Force Chief of Staff Gen. Mark A. Welsh III, speaking at the National Press Club in April, said everything in the Air Force's buying plan for the 2020s—and there is a lot of new hardware on the books—is affordable within the budget topline the service is forecast to get.

Welsh said the Air Force is not expecting "money from heaven" to be able to afford its LRS-B, a new tanker, the F-35 fighter, a new trainer, and other

programs. "It's in the plan, even at these reduced [budget] levels," Welsh asserted, explaining that USAF is assuming risk in force structure now in order to afford the equipment it needs later. He also said that he alone has the authority to change the requirements for the bomber. Requirements changes have been blamed for numerous overages on other projects.

"One of the reasons programs get canceled is because we start things we can't afford," LaPlante said, adding that the Air Force is determined that won't happen this time. Requirements for the LRS-B have not changed since 2010, he noted.

Since the LRS-B's inception—following former Defense Secretary Robert M. Gates' 2009 cancellation of the Next Generation Bomber—the Air Force has kept its comments about the new aircraft to a minimum. When asked, USAF leaders have said only that the LRS-B project is planned to produce 80 to 100 aircraft with the first one complete by the "mid-2020s"; that the airplane will be "optionally manned"; that its unit cost is pegged at \$550 million each (stated as a flyaway cost in 2010 dollars); that it will rely on fairly mature technologies to curb risk; that it is only one element in a "family" of long-range strike systems; and that a future version will be capable of performing the nuclear strike role.

Asked why the Air Force has not specified a particular number of bombers it wants to buy, but a range of 80 to 100—after previously specifying a discrete number for F-22s and F-35s, for example—LaPlante answered with another question.

"Tell me a program in any service—ships as well—where we've produced as many as we've said? ... How many B-2s do we have?" He argued that 80 to 100 is "a tight bound" and USAF must set a number of some kind to give credence to the unit cost of \$550 million.

"If you're going to shoot for a number per airplane, you've got to know how many, roughly, you're going to produce." The \$550 million unit cost is based on 100 bombers. The cost would be higher if the Air Force did not build as many, because development costs and overhead would be spread out over fewer aircraft.

The program is also shooting for a production rate that is not so fast that concurrency is an issue, but not so slow as to lose the efficiencies of the learning curve.

"What's important," LaPlante said, "is not the number per year, but that we set a course and stick to it. And that the course is ... economical."

Others have suggested the LRS-B may or should be a bigger program. The former Air Force deputy chief of staff for ISR, retired Lt. Gen. David A. Deptula, has suggested a figure of 175 because of the other functions beyond long-range strike that the new bomber should be capable of performing.

In May, Maj. Gen. Garrett Harencak, assistant chief of staff for strategic deterrence and nuclear integration, told staffers on Capitol Hill that 120 LRS-Bs could serve as a hedge against future uncertainty, if money were not an issue. It was his personal opinion, he said, and based on his experience at the 509th Bomb Wing—where it was a challenge to manage what he called the "microfleet" of 20 remaining B-2s.

Rep. J. Randy Forbes (R-Va.), chairman of the House Armed Services Seapower and Projection Forces panel, said in April he doesn't think 100 LRS-Bs are enough, but didn't have another number in mind. When asked if he thought more than 100 were needed—or that there's not enough money to buy 100—his reply was, "Possibly both."

STEALTH HAS ITS MERITS

Few other details have emerged. A Boeing-led team, with Lockheed Martin as a partner, announced it is competing for the program. Boeing is the prime contractor for the KC-46 tanker, and Lockheed Martin builds the joint service F-35 and built USAF's top fighter, the stealthy F-22.

Northrop Grumman, builder of the B-2, has stopped short of announcing its intent to compete. A spokesman said only that it is "interested" in the program and has the design and industrial capability "to meet the mission requirements." Northrop Grumman declined to bid on the Navy A-12 attack airplane program in the 1980s because it didn't believe the fixed-price develop-

A notional LRS-B lines up with a KC-46 tanker. To keep cost and risk down, the new bomber will be based on technologies deemed already fairly mature, but it will still be capable of penetrating modern and future air defenses.

Though some versions of the LRS-B may be "optionally" manned, the first version will be nuclear-capable. It may take a while before the type is certified for nuclear weapons, however, and in that role, the LRS-B would always have a crew.

The competition involves considerable investment from the contractors and flying articles, LaPlante revealed. The government didn't require this investment, but "if you want to be cutting edge," companies need to invest to have "the best market advantage," even if that market is limited to the military. Asked if the LRS-B will apply the philosophy of "fly before buy"—a frequent congressional demand usually meaning a fly-off competition—LaPlante said that because "this is relying on relatively mature technologies, and potentially decades of our industrial base supporting it," evaluators "will not be merely looking at paper designs to make decisions."

There are "variants of technical articles, ... prototypes, if you want to call it," that are being evaluated, he said. Some of these assets "are internal resources that industry has already; some of it is stuff that we have funded through various programs over the years, so that's all going into what is going to be looked at in the next year."

Northrop Grumman is believed to have extensive subscale flying data on hand from work it did in preparation for the Next Generation Bomber project and is flying the stealthy X-47B remotely piloted aircraft under a Navy contract. Boeing's self-funded "Phantom Ray" RPA has flown publicly, and Lockheed

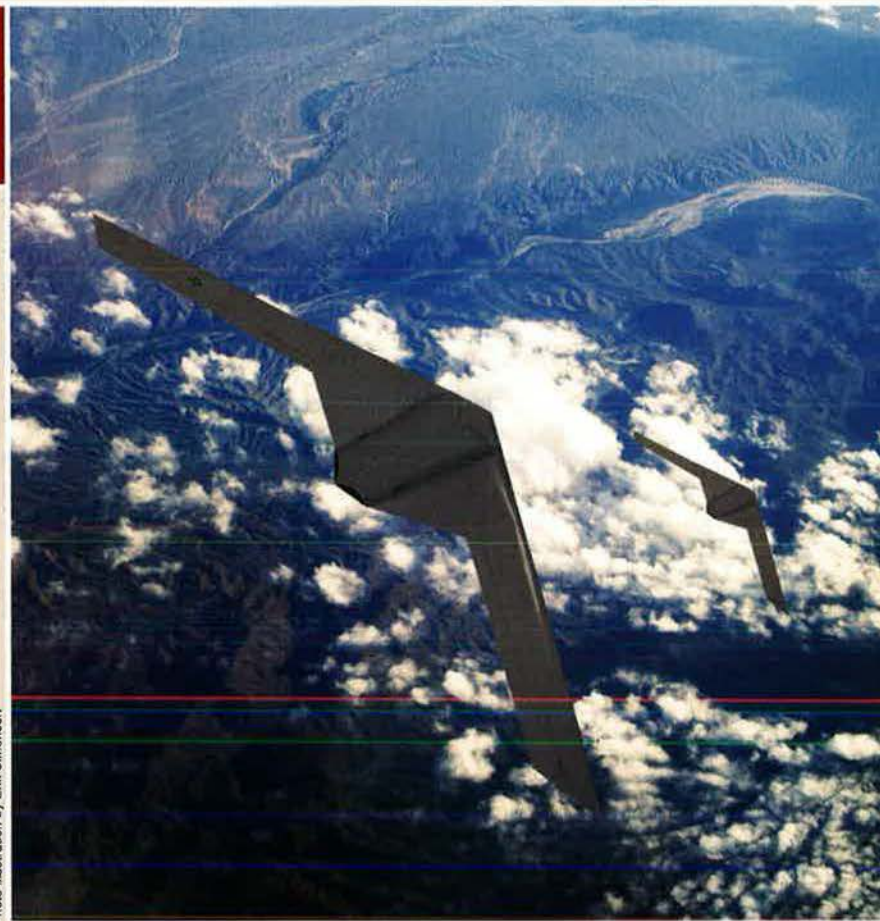


Photo illustration by Erik Simonsen

ment contract was workable. The A-12 wound up being canceled for cost and schedule overruns.

Air Force Secretary Deborah Lee James said in February that "there are two teams at present that are working on preproposal-types of activities" related to the bomber and that they were "preparing to ... take the next step in the competition."

The secrecy surrounding the LRS-B is purposeful, LaPlante explained. The B-2 itself was not revealed until it was rolled out of the hangar publicly in 1988, he noted, and today, given "the open press ... and the cyber vulnerabilities that we all face every day, ... we have to ... protect critical information." More details will be revealed over time, he said, but "when you're in early phases of programs with advanced technologies like this, ... it's wise to keep it very carefully held."

In the May interview, LaPlante said requests for proposals had been out to

contractors for some time, with discussions—"tweaking"—back and forth about what would be in the final version. The evaluation process would begin with a contractor selection "nominally within about a year," or in the June 2015 time frame. Development and production would be geared to produce a usable article in 2024, he said.

Photo illustration by Erik Simonsen



America's last new bomber, the B-2 Spirit, first flew 25 years ago. The Air Force will tap the technologies developed since to build its LRS-B. A contract is expected to be awarded next summer.



William LaPlante, USAF's chief of acquisition, gives testimony during a House subcommittee hearing in April. LRS-B will rely on a "family" of systems, and not all the pieces will reside with USAF.

Martin has built a number of stealthy RQ-170 Sentinel RPAs for the Air Force.

Contractors will be able to offer capability beyond the required "threshold" level, LaPlante said, with the goal not to simply seek "the lowest acceptable technical approach." However, there will be a limit to how much extra USAF is willing to spend to get more capability, preferring to keep the initial version well-defined and pursue refinements with later "variants." The downselect will be to a single contractor, LaPlante said. There will be no next stage of competition.

The chosen system "will be able to do the kill chain"—able to fly many missions entirely on its own, without support—but LaPlante emphasized the LRS-B is simply one element of the "family of systems" and works better when linked with a network of other platforms and capabilities.

The LRS-B has to operate with "the electronic warfare aspects, [intelligence, surveillance, and reconnaissance] aspects, communications," and is built around "how all of that together ... accomplishes the mission associated with long-range strike." Not all of the family of systems reside in USAF and will rely on other services' capabilities, such as the Navy's EA-18 Growler, he said.

The acquisition strategy is to "go with relatively mature technologies, do this competitive phase, and build in design points and an adaptable strategy that allow us to do block upgrades to future variants to adapt to the world," LaPlante said. After this scheme was approved, "we stuck to it."

READY TECHNOLOGY

The first variants may well be the "80 percent" solution, and deliberately so, he said. On other flawed programs, "we've tried to put so much into the first version, because we want it to be advanced," LaPlante said. As the inevitable delays take hold to accommodate emerging technologies and changes, "the system then loses confidence that there's going to be later versions, so ... it circles in on itself, and then you want all the capabilities to be in the first, and then we end up with 15-year development programs."

Service leaders have suggested that to hold risk down, only elements at Technology Readiness Level 6 and above will be included. The nomenclature of TRLs refers to how mature a technology is. TRL of 1 is a basic scientific idea. TRL 4 indicates a technology has successfully passed the experimental stage. TRL of 6 indicates that prototypes have been successfully demonstrated and partial integration with other systems has been demonstrated. TRL 8 is "mission qualified." TRL 9—the highest—is "mission proven" technology. On previous projects, industry leaders have urged USAF to reach by including TRLs at the 4 or 5 level to achieve big breakthroughs that bestow a generational lead over competitors. Northrop Grumman officials have disclosed that the B-2 program started out with some technologies at the TRL 3 level.

How will the bomber stay ahead of adversaries over its 40-year service life if it starts with largely proven technolo-

gies? LaPlante said TRL 6 capabilities are "not in the bag, by any stretch" and do indeed constitute a technology leap.

With the evolutionary strategy—LaPlante called it the "Block A" approach—"you focus on getting the first version done." After that, "you put in the adaptive parts of the design" such as "hardened points" on the wings, and an "open architecture" to plug in new systems. This allows for future upgrades "and you get on with it."

He compared the strategy to that taken with the F-16 over the last 40 years. Externally, today's F-16 looks like the original version from the 1970s, but "it's a fundamentally different capability on the inside." However, USAF has to be disciplined about putting technology in the first block that is mature—"and this is a key point"—that has earned its way onto the program." Trying to put in technology either not needed or too immature for the first batch will only cause delays, he said.

Stealth has not been rendered an obsolete technology by advanced radars, LaPlante said. "An important part of the kill chain is ... how stealthy you are," he insisted. "That's why we quiet our submarines." Submarines that are most silent "win in that part of the kill chain and [the enemy] can't shoot them. It's that simple."

Although the Air Force has consistently said that the initial version of the LRS-B would not be nuclear capable—an assertion LaPlante repeated in the interview—the service subsequently refined its position on the matter, saying that the "base-line version ... will be nuclear-capable on Day 1." The Air Force explained through a spokesman that while the "Block A" model of the LRS-B will have all the necessary "piping, wiring, structure built in" to carry out the nuclear mission, it will probably take up to two years to "certify" the aircraft for the nuclear role. That certification will require USAF to demonstrate the airplane has completed operational testing, can carry a nuclear payload, has enough pilots, maintainers, weapons handlers, and other necessary personnel properly trained, and that its operating base has proper storage and handling facilities for nuclear weapons. Hardening isn't "necessarily" needed up front, LaPlante said.



Air Force Chief of Staff Gen. Mark Welsh says USAF is risking force structure now to squeeze out enough money for equipment, such as the LRS-B, the service will need later.

The LRS “family” has to be capable of carrying out the kill chain, LaPlante emphasized. “That is, how are we going to sense, how are we going to detect, how are we going to deliver the effect, how is all that going to be done in an environment where I have available—to me and to the adversary—electromagnetic warfare? I have the ISR, the battlespace awareness that I have to be doing all the time, and the communications.”

LaPlante said the LRS-B has to be able to penetrate enemy defenses on its own, but the big question—and one he said is haunting every combat program these days—is what it can do without help from other platforms?

“There’s going to be a minimal level of capability that [the LRS-B] will have to be able to do organically, for lots of reasons,” he said. “The obvious reason is, you can’t always assume that you’re going to have the other aspects of the family of systems.” Also, the combat environment will be thick with “the cyber threat, the jam threat,” and it will have to operate under those conditions.

Although the family of systems is “better operating together, ... and we’re working toward that, ... from almost a resiliency perspective, some minimal capability” must be resident on the bomber.

LaPlante said, broadly, “For as long as we can,” the Air Force will try to “make sure ... platforms can do as much of the kill chain as they can” organically. “The magic is in the trade” between capabilities and systems. Still, there’s “only so much [volume], power, and weight available,” and any capability “has to earn its way on.”

Will the first LRS-B delivered be capable of combat operations in a dense

threat environment? “Oh, yes. Oh, yes,” LaPlante answered.

However, “at some point, you can’t do it with a single platform,” he admitted, and that underscores “the power, just from a geometry perspective, of bringing in multiple platforms and multiple capabilities.”

LESSONS LEARNED

The LRS-B will very much be developed with an eye toward achieving desired effects, he said, and they don’t “all have to come from the traditional single platform itself” and involve not only kinetic but nonkinetic effects.

LaPlante said he’s satisfied with the level of technology on the LRS-B, but “what I want to put the emphasis on in the next few years is the feeder line—the pipeline—for the next versions.” He said in previous programs, there has been a tendency to assume that new technologies for later variants will simply appear or be offered by the contractor through independent research and development. This is wrong, he insisted.

“My experience is, it’s not enough. The government has to invest its own money as well, in higher, more cutting-edge technologies ... to provide that feeder pool to future upgrades.” It doesn’t do any good, he said, “to build an adaptable airplane ... if you don’t invest in the ecosystem that provides the potential future innovation.” He’s been urging the Air Force Research Laboratory to think about the sequence of new technologies that will feed future bomber upgrades and make sure they take that application into account when they invest in new science.

Another challenge will be working with systems the Air Force knows it will still have in the inventory 20 years or more from now. “There’s a mixture in there of legacy capabilities as well as new stuff,” LaPlante noted, and “the trick is, of course, ... how you transition that mix as we go into the future.” That is not how the acquisition system has traditionally operated, he pointed out. “This is a nonplatform-centric way of thinking about the problem.”

What the Air Force has learned from the F-35 is to make cost a key performance parameter, a tradable attribute alongside any of the others of the aircraft, and to ward off loading up the initial block with too much technology risk. The LRS-B is “different [from] anything we did on F-35.”

The other lesson from F-35 is “concurrency,” LaPlante asserted. “Err on the side of getting as much development done as you can before you start to do production.”

The LRS-B is being managed by the Air Force’s Rapid Capabilities Office, which was set up in 2003 to quickly field urgently needed systems by bypassing the usual arduous bureaucracy. Previous publicly acknowledged efforts include an air defense system around Washington, D.C., and the development of the X-37B orbital test vehicle.

“In the phase [the bomber is] in now, it makes sense” to run it out of the RCO, LaPlante said. “That may or may not be the case in the future.” Pentagon acquisition, technology, and logistics chief Frank Kendall said that “Skunk Works-type” programs—borrowing Lockheed Martin’s name for its quick-turnaround secret projects shop—may be the best way to speed up programs and reduce their cost.

Given all that USAF must buy in the 2020s, does the bomber have to be bought within a specified period of time in order to afford the other projects?

LaPlante doesn’t think so. “This is so foundational that it’s one of those things we’re going to get done,” he said. It will not be rushed to get it bought within a certain time frame, he said. “This is one of the ... things we know we have to do.” ■

Khobar Towers, Before the Scapegoating

On June 25, 1996, an explosive-laden truck detonated outside Khobar Towers in Saudi Arabia, killing 19 airmen. Questions came quickly: How could it happen? Who was to blame? Secretary of Defense William J. Perry told Congress, "Our commanders were trying to do right, but given the inconclusive nature of the intelligence, had a difficult task to know what to plan for." However, retired Army Gen. Wayne A. Downing was named to investigate, and Downing pinned blame on Air Force Brig. Gen. Terry J. Schwalier, the wing commander. A year later, new Defense Secretary William S. Cohen bowed to political calls for a scalp and canceled Schwalier's previously approved promotion to major general, prompting Schwalier to retire. Given the cravenness of this endgame, it's useful to review Perry's take on the case.

It is clear in retrospect that the actions we took to respond to the threat were not adequate to deal with the attack that actually occurred. ...

Why, in the face of serious concern about force protection and extensive measures to improve force protection, did the Khobar Towers tragedy occur? ... Based on what I have already learned, I can give you a partial answer.

First of all, the security measures we introduced after the bombing of the Saudi National Guard facility [in November 1995] were focused on a threat less powerful than actually occurred.

Secondly, and partially related to our understatement of the threat, our local commanders, for a variety of reasons, had not completed some of the measures that were prescribed and which they agreed needed to be done.

Why did we focus on a threat which proved to be understated?

For the decades of American presence there, it seemed that Saudi Arabia was safe from the terrorist violence occurring in other countries in the Middle East. ...

In November of last year, a group of Saudi religious extremists attacked the office of the US program manager for the Saudi National Guard in Riyadh with a car bomb, killing five Americans. That was a wake-up call. At that point, we made what we believed to be a prudent judgment that this attack might not be an isolated event but a new trend and a high terrorist threat level to Saudi Arabia.

In response to this judgment, we conducted analyses of the vulnerability of our forces in Saudi Arabia. In particular, the Air Force's Office of Special Investigations conducted a vulnerability analysis of the Khobar Towers that was completed in January of this year.

It was informed by full access to the intelligence information on the terrorist threat to Saudi Arabia.

But the intelligence information, while voluminous and pointing to a high threat level, was also fragmentary and inconclusive. It did not provide the user with any specific threat, but rather laid out a wide variety of threat alternatives.

Consequently, our commanders received recommendations to take a variety of actions. Many actions were completed prior to the June attack. Some focused on preventing an attack similar to the November bombing. Other actions focused on preventing attacks of a completely different nature and may have prevented a different type of attack from taking place.

"Combating Terrorism in Saudi Arabia"

Prepared Statement to the Senate Armed Services Committee
Secretary of Defense William J. Perry
Washington, D.C.
July 9, 1996

Find the full text on
Air Force Magazine's website
www.airforcemag.com

"Keeper File"

My assessment is that our commanders were trying to do right, but given the inconclusive nature of the intelligence, had a difficult task to know what to plan for.

The critical limitation on anti-terrorist intelligence is warning on specific terrorist operations. You need a critical level of intelligence to prevent an attack. Short of that level of information, commanders have to plan for a wide range of cases.

This attack turned out to be 10 times as powerful as the previous attack. It is evident from what is already known about the attack that the bombers were well-organized, had sophisticated training, did extensive practice, and had access to military-quality explosives and detonating devices. ...

I believe that it is prudent to conclude that we are now facing a significantly higher and more sophisticated threat than was evidenced by the bombing of the Saudi National Guard facility in Riyadh.

Why were the recommended security measures not yet completed at the time of the attack?

Based on his view of the threat and the vulnerability analysis done by OSI, the base commander [Schwalier] undertook an extensive set of security measures at Khobar Towers. ...

Some of these measures were still in process, but most of them had been accomplished at the time the attack was made on Khobar Towers. Indeed, the security measures that were already in place undoubtedly saved dozens, if not hundreds, of lives. However, it is also undoubtedly true that significantly fewer casualties would have occurred if all of the prescribed security measures had been implemented by the time of the attack. ...

It seems clear that local commanders would have put a higher priority on timing if they had perceived a threat as sophisticated and powerful as actually occurred. ...

The changes required to deal with this level of threat will be complex, expensive, and take many months to implement. It is fundamentally difficult to provide protection against such a threat, particularly in an urban environment. Therefore, I have [decided] to move our military forces out of Riyadh and other urban environments, where it is difficult to provide adequate physical security. ■

Traveling the World and B1 Things Up

SSgt. Nicole Richardson, an EOD tech, proved her mettle supporting a Marine Corps battalion in a particularly nasty section of Afghanistan.

SSgt. Nicole Richardson during pre-deployment training at Tyndall AFB, Fla., in March 2012.

females would eventually enter Marine combat engineer units.

Her job, along with the rest of her team: Clear the route and destroy any improvised explosive devices.

In early September 2012, she and her team were sent to head out for a patrol base in Helmand's River Valley. The team had been on missions around the area before. It was a pretty hot area, one of the main insurgent strongholds in the province. In each of the previous five or so missions into the area, the team had experienced IED strikes or received small-arms fire.

True to form, along the way the team entered into a draw leading down into the river valley and suffered several IED strikes against the vehicles in the convoy, including one that killed a marine and wounded two others.

"Everything just seemed to slow down. What was probably only an hour seemed like days," Richardson said. "When we heard the explosion go off, we were all holding our breath waiting for the guys to come over the radio and say they were OK. It never came. We turned our vehicles around and that's when we saw how bad the truck was."

"We could see one of our marines lying on the ground and we knew we had

lost him. As sad as that is to experience we had to press on and worry about the other two marines in the vehicles. When we got out of our vehicle, we could hear the other marines yelling for help," she said.

Richardson helped get the two injured marines from the disabled vehicles and applied basic first aid while awaiting the arrival of a medevac to transport them to help. "The biggest thing going through my mind [was finding a] way to keep them safe and alive," she said. "As the other personnel were extracting equipment out of the damaged vehicle and clearing a landing zone, I stayed with the two marines and made sure they kept breathing and talking. You don't really stop to think about your personal safety when your friends are injured on the battlefield."

Richardson recalled, "Once we got them on the medevac, it was eerily quiet. Nobody was talking and [everyone was] just sitting there reeling over what just happened. It's a very somber moment when you can see the same emotions in 30 faces. We had realized we just lost one of our men. I will never forget those three days."

On the third day of the mission, after completing recovery operations, Richardson and the rest of her team stood outside their vehicles trying to decide how to get all of the other



Photo via SSgt. Nicole Richardson

"If you had asked me coming out of high school, I would not have said I would have gone into the military," said SSgt. Nicole G. Richardson. But the woman who said she wasn't ready for the "real world" after high school and joined the Air Force as an opportunity to travel the world while she figured life out is now a recipient of an Army Commendation Medal with Valor and a Marine Combat Action Ribbon for her heroic efforts during a mission in Afghanistan.

In the spring of 2012, Richardson (then SSgt. Nicole Nellist) deployed to Helmand province, Afghanistan, as a member of the 966th Operating Location-D Explosive Ordnance Disposal Flight to support a Marine combat engineer unit. She was the only female either in or supporting the Marine 1st Combat Engineer Battalion the same summer the USMC announced that



Downing

By Autumn A. Arnett, Associate Editor



USAF photo by S/A Perry Aston



vehicles out of the IED-saturated area. Suddenly, they found themselves in the midst of what Capt. Daniel S. Long, Richardson's downrange commander, described as "a rather sustained, heavy ambush" from a group of approximately 30 insurgents firing rocket-propelled grenades, launching mortars, and shooting small-arms weapons.

One of those mortars struck and injured then-TSgt. Jason Kreider, Richardson's team leader, along with four others. The insurgent troops continued attacking with heavy small-arms fire and added machine-gun fire to the mix. Richardson and an EOD team member, SSgt. Christopher Broyles, "sprinted across open terrain back to their vehicle, got in, dismounted their M240 machine gun, and began maneuvering to try to find a location where they could best employ their fire power," Long recalled. "At the time, [it was] the only dismounted machine gun. All vehicles, including all Marine vehicles, were kind of stuck where they were, due to the IED saturation of the area."

Long said Broyles and Richardson navigated the uncleared field for the next "45 minutes to an hour or two," returning fire against the insurgents in the attack. Richardson returned to her vehicle across the field, dodging fire and other planted IEDs to retrieve more ammunition from the vehicle for Broyles.

"All I was thinking was that we needed to get bullets downrange," she said. "The most important thing is to have your biggest weapons firing downrange. [Knowing] my teammate needed ammo to help us win the fight was the most important thing on my mind."

The biggest weapon that day was the M240B Broyles was operating. Continuing to fire off rounds of ammunition from her M4, Richardson repeatedly went back to retrieve the additional ammunition to keep feeding Broyles what he needed.

The pair was able to ward off the insurgents. "They eventually beat back enemy assault ... and were able to get all of the remaining vehicles and personnel out of that draw later that day," Long said. Richardson's efforts in the mission were particularly important because they enabled the safe evacuation of the handful of injured marines and of Kreider, their EOD team leader, by Air Force pararescue teams.

Richardson served as team lead for "the remainder of the deployment—which was about a month, month-and-a-half," according to Long's memory.

"I was concerned about my team leader [the injured Kreider] and making sure he got the medical attention that he needed," Richardson said. "He had been teaching me throughout the entire deployment how to take over the

Photo via SSgt. Nicole Richardson



At top: Unusable munitions explode in a controlled detonation. Here: Richardson and other EOD techs at Camp Leatherneck, Afghanistan, in 2012.

team, since I would possibly be a team leader on my next deployment. I was nervous but knew I had been taught what to do very well and could handle the pressures of being a team leader."

She assumed the role of team leader almost seamlessly, channeling the words of her grandfather, who served in the Navy during the Vietnam War and



USAF photo by SrA. Penny Johnson

was tasked to support a route clearance mission in support of a time-critical resupply of some Afghan National Army posts in the northern Helmand River Valley.

During the five-day mission, the convoy came under intense heavy small-arms fire. Long recalled that the team fired close to a thousand rounds of ammunition, saying the mission required “multiple rocket, artillery, and air support attacks to beat back” the insurgents.

“Nikki’s team, and the convoy they were supporting, fired enough rounds that day that we had to pull all available ammunition at the main [forward operating base] to airlift out to them for an emergency resupply that night,” Long said.

He said Richardson and her team cleared approximately six IEDs, with limited resources—while under fire. “The convoy’s main IED-interrogation tool, a Buffalo MRAP [mine-resistant, ambush-protected vehicle] was inop, leading the EOD team to creatively utilize their robotics packages to fill the gap,” he said. “The sustained enemy fire and heavy IED saturation on the route meant that the convoy had to return to the FOB that they started the day at, having only traveled a few miles in total.”

Throughout that mission and over the course of the deployment, Long said Richardson “performed the duties of team leader, a position she would normally have been excluded from” as a staff sergeant. Long added that she carried out these duties “exceptionally.”

“Nikki is very, very hard-driven. She does not take no for an answer. She definitely is the sort of person who, if you give her a task, she’s going to find a way to do it, one way or another,” Long said.

Kreider said Richardson’s presence on that mission, one in which women generally would not have participated, brought a sense of stability to the team. As the only female on the team from either service, “one of the things that she definitely brought to that situation was a calmness for the guys,” Kreider said. “With that situation happening, most of the marines that we were with, it was the first time that they had experienced anything like this and with her experience throughout her military career, she was able to bring some calm back into that situation and help focus the marines back on the mission at hand.”

Now stationed back at JBSA-Lackland, Texas, Nicole Nellist has since married Joseph Richardson, who previously served as an airman for eight years and in the Army for five.

She is hoping to be assigned as an instructor for Naval School Explosive Ordnance Disposal (NAVSCOLEOD) at Eglin Air Force Base in Florida. NAVSCOLEOD is the joint-service schoolhouse that trains the next generation of EOD techs.

Richardson allowed that her job is “really cool because I get to blow stuff up” and travel a lot. Since joining the Air Force, Richardson has certainly achieved her goal of traveling the world: In 10 years of service she has visited Belgium, Brazil, Peru, Jordan, Saudi Arabia, Afghanistan, and Iraq and is hoping to one day be stationed in Germany so she can tour Europe.



Top: Richardson (then SrA. Nicole Nellist) carries a box of grenades to a range pit for detonation. **Above:** On deployment to Sather AB, Iraq, in 2010, she explains C4 explosives to Frank Skinson (center), of the Sather USO, and SrA. Adrian Contreras.

told her as she prepared for her first deployment: “Always remember your training. The Air Force will never send you to do a job they haven’t trained you to do.”

BACK INTO THE FIRE

Richardson would go on to lead the group in what Long called an impressive display of leadership, including in another “particularly nasty” mission later that month. The team

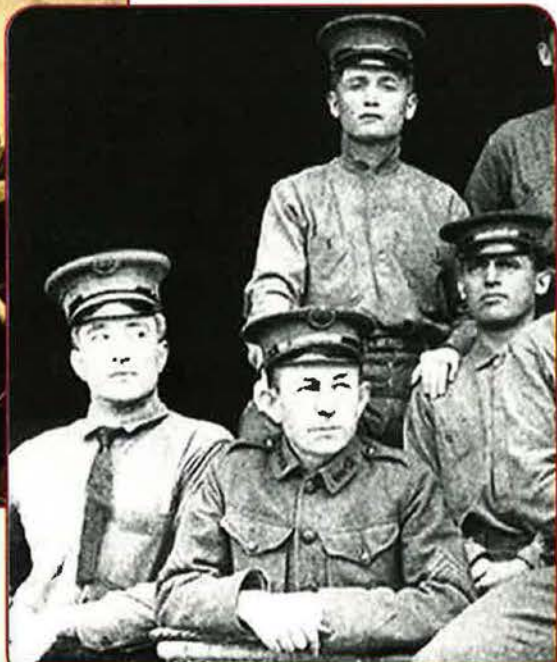
The First and the First



Capt. Charles Chandler (left) and Lt. Roy Kirtland, in 1912, after the first firing of a machine gun from an airplane.



Chandler in 1912.

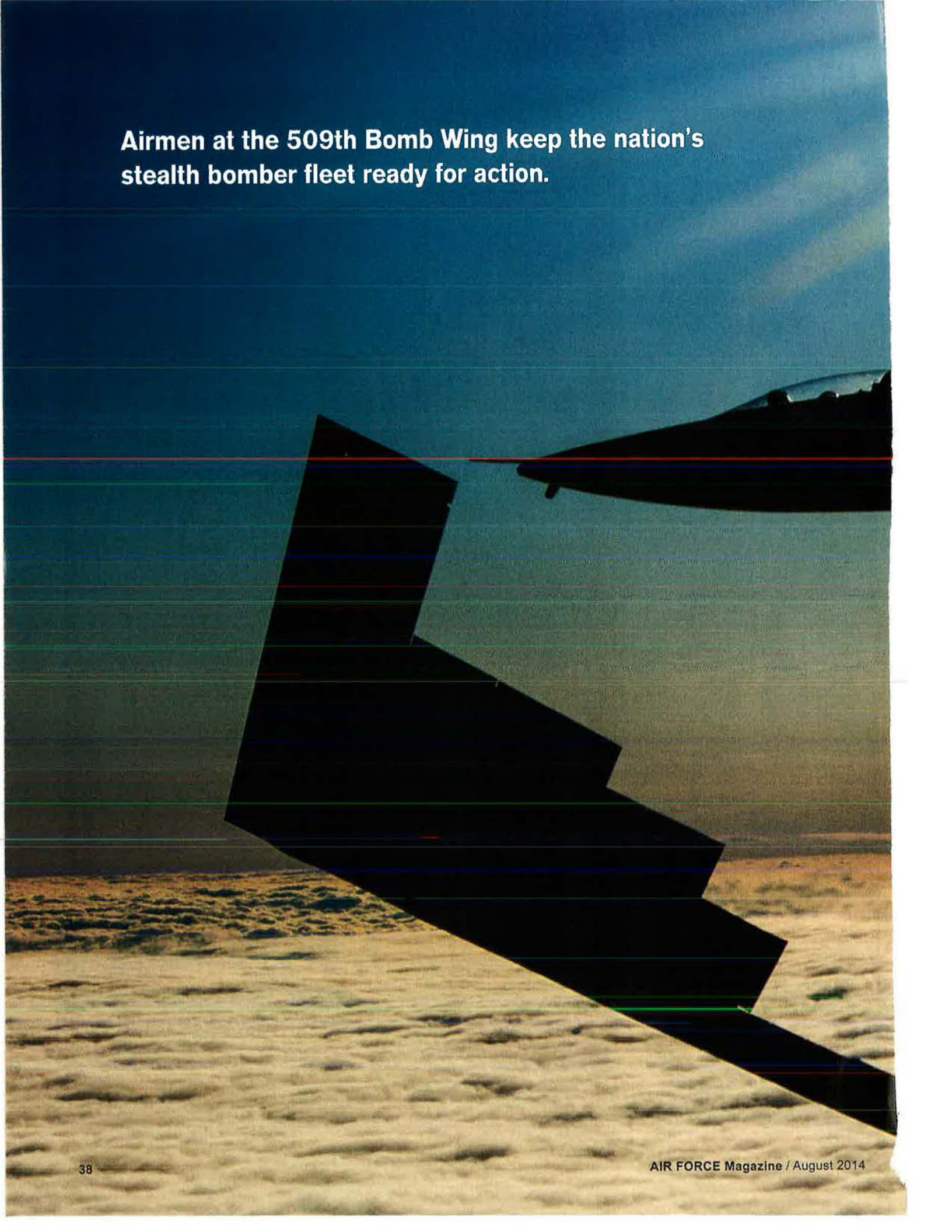


Cpl. Edward Ward, seated center, at military balloon training.

With a memo dated Aug. 1, 1907, the Army created "an Aeronautical Division," progenitor of the Air Force. The memo detailed to this unit Capt. Charles deForest Chandler and Cpl. Edward Ward—thus making Chandler USAF's first officer and Ward its first enlisted man. Chandler, a 28-year-old Ohioan, had time in balloons. Ward, a former railroad signalman from Pine Knot, Ky., was 25. Both men were at Fort Myer, Va., in 1908 when the Wright brothers took their Flyer

through military trials (Ward uncrated the Flyer). Both Chandler and Ward served in World War I. In 1920, Chandler retired at the grade of colonel. Ward became a licensed balloon pilot, learning how to fly and maintain the Aeronautical Division's dirigible. He supervised the laying of cables across Tampa Bay and oversaw the aerial mapping of the Smoky Mountains and Shenandoah National Park. Ward retired as a master sergeant.

**Airmen at the 509th Bomb Wing keep the nation's
stealth bomber fleet ready for action.**



WHITEMAN GHOSTS

Photography by Sagar Pathak



Twenty-five years ago in July, the B-2 bomber made its first flight. Since then, the B-2 has been America's stealthy hammer, taking part in the wars in Yugoslavia, Afghanistan, Iraq, and Libya and regularly deploying to Guam to provide a continuous bomber presence in the Pacific. The sole B-2 unit of 20 airplanes is the 509th Bomb Wing, based at Whiteman AFB, Mo. There, the B-2s are generated from and serviced in specially built hangars. Flying hours for the 509th's pilots are limited by the small number of B-2s, so pilots keep their flying skills honed with time in simulators and companion T-38 trainers, painted to match the much larger B-2s. Here, a B-2 of the 509th and a T-38 of the 394th Combat Training Squadron fly formation in the Missouri skies. On the pages that follow, we have respected the wing's request to refrain from naming B-2 pilots.

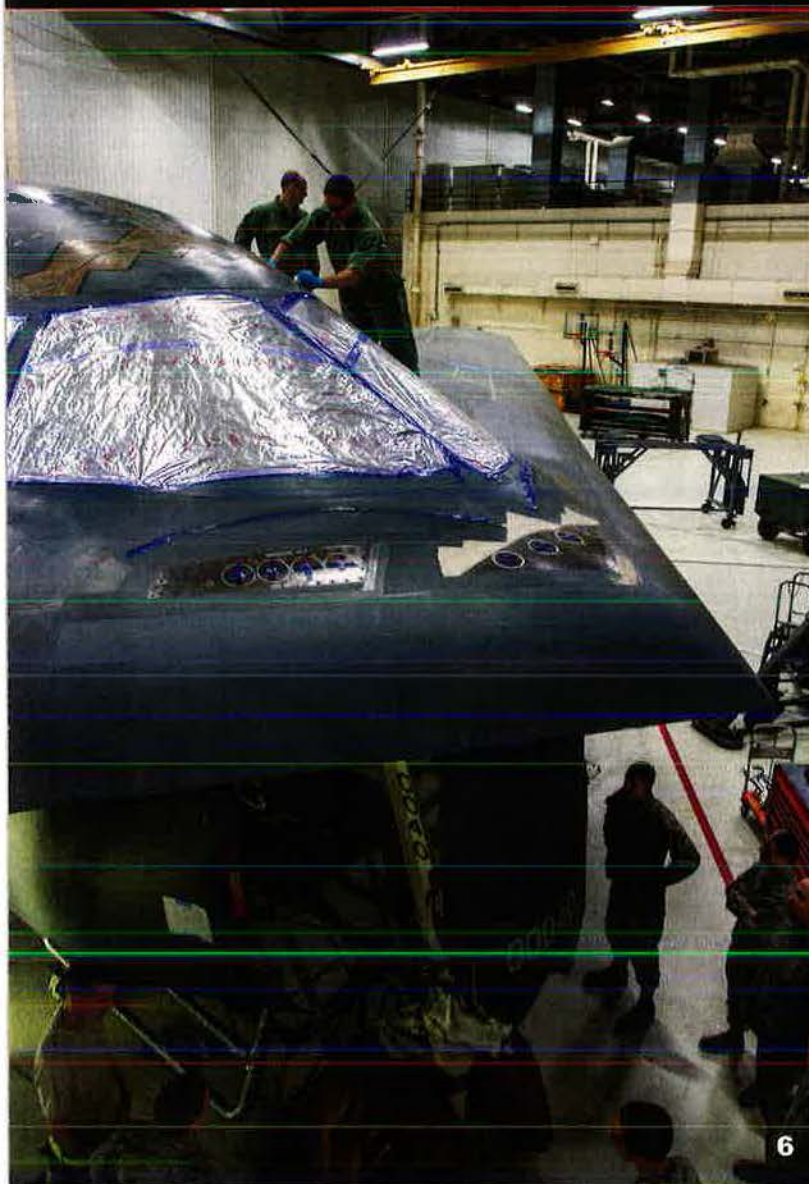


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1/1 The Air Force named most B-2s after states, along the lines of the old Navy battleships. Here, AV-16, Spirit of Hawaii, is illuminated by ceiling lights in its custom hangar (both front and back doors are open for engine runs). 1/2 The B-2 egress trainer gives pilots periodic refreshers in how to exit the airplane in an emergency. It can be filled with smoke and has all the lights and caution signals of a real cockpit. That training was used only once, in 2008, when the B-2 Spirit of Kansas crashed in Guam. The pilots survived a low-altitude ejection without major injury. 1/3 Air traffic control apprentice A1C Chanel Johnson checks the runway from Whiteman's tower. 1/4 Call sign Dexter, the supervisor of flying, acts as the operations group commander's eyes and ears in the tower, monitoring weather and area flight ops. 1/5 Spirit of Hawaii looms in its hangar. 1/6 During an annual inspection, Spirit of Alaska has its stealth materials scrutinized by techs from the 509th Maintenance Squadron and the 131st Maintenance Squadron, an Air National Guard unit. On the fuselage are SSgt. Joshua Fleshman (left) and A1C Steven Sahn.



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/1/ Sahd, a low observables tech with the 131st, applies stealth coatings. Note his boot covers, protecting the B-2's stealth finish. For large applications and repair, Whiteman has a specialized stealth coatings facility. /2/ The B-2s share Whiteman with A-10s of the 442nd Fighter Wing, an Air Force Reserve unit. /3/ The 394th's T-38s are serviced under sun shades on the tarmac. /4/ Spirit of Indiana and a T-38 chaser make a low sunset pass over Whiteman.





1/1 During a proficiency exam, 509th weapons loaders hold a bomb bay door open. L-r: TSgt. Ricardo Zuniga, TSgt. Chase Molitor, SSgt. Brandon Moyland, and TSgt. Nathan Wesley. *2/2* MSgt. Jamie Gilbert, Zuniga, Molitor, and Moylan (l-r) review procedures for loading a Joint Direct Attack Munition on a B-2. Spirit of Whiteman is a full-scale, nonflying weapons loading trainer. *3/3* Spirit of Indiana opens its capacious bomb bays. *4/4* Spirit of Indiana taxis out. In flight, protruding lights and intake doors close flush for stealth. The B-2 is kept meticulously free of surface imperfections that could show up on radar. *5/5* Left to right: 509th crew chiefs SrA. Patrick Nelson and SrA. Dustin Childs go over a preflight checklist with call sign Shredder and photographer Sagar Pathak before a simulated nuclear bombing mission.



/1/ Spirit of Indiana lowers its landing gear. Having no vertical control surfaces, the B-2 relies on deflecting its tail/wing flaperons for yaw control. Seen deflected at the aircraft's rear, they can also function like a speed brake. Computers make the split-second calculations needed to keep the B-2 stable in flight. /2/ SrA. Steven Lee of the 309th Operations Support Squadron adjusts an oxygen mask for a waiting pilot. /3/ A1C Jared Schanen of the 509th OSS performs maintenance on a parachute to be carried in a T-38 ejection seat. /4/ Spirit of Indiana taxis as Spirit of Missouri, in background, starts down Runway One at Whiteman. /5/ Above the Truman Military Operating Area, a pair of 394th T-38s fly in formation.





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/1/ Spirit of Pennsylvania takes off. Though the Air Force doesn't acknowledge it, names assigned to B-2s reportedly recognize congressional delegations from those states that were supportive of the Air Force strategic bombing mission—another tradition borrowed from the Navy

/2/ There's ample warning around Whiteman that the B-2's secret technology will be vigorously protected. /3/ Whiteman airmen check their handiwork on the rifle range. /4/ SSgt. Michael Boutte and TSgt. Cole Miller of the 509th Security Forces Squadron work on long-range target practice. /5/ SSgt. Daniel Crummey of the 509th SFS practices at the range.

Next page: /1/ Flying alongside Spirit of Indiana, T-38 Spirit of Knob Noster honors Whiteman's local host community. /2/ SSgt. Timothy Heiden, a 509th OSS air traffic controller, monitors a radar approach and control terminal, watching airspace up to 45 miles away. /3/ Spirit of Indiana on final approach at sundown. /4/ A topside view of Spirit of Indiana. With a wingspan of 172 feet, the B-2 is only about as long as an F-15 fighter. ■



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IN 1982, Gen. David C. Jones was credited with firing the first shot in the Department of Defense reorganization that eventually led to passage of the Goldwater-Nichols Act. After decades of failed attempts to increase jointness among the services, his “historic stand” in front of Congress—as described by James R. Locher III in *Victory on the Potomac*—was the new beginning of the daunting effort.

Years later, retired Gen. Colin L. Powell stated that the act “for the first time, gave the Chairman of the JCS [Joint Chiefs of Staff] real power.”

While Jones himself lacked joint tours in his career, that didn’t diminish his recognition of the importance of fighting jointly. This belief served him well as he progressed through the military ranks, concluding a 40-year career as the nation’s third Air Force officer to become Chairman of the Joint Chiefs.

During Jones’ tours as Air Force Chief of Staff and JCS Chairman, from 1974 to 1982, the military faced considerable challenges following the Vietnam War. According to a 1977 *Air Force Magazine* article by Air Force Secretary John C. Stetson, USAF was substantially decreasing personnel and aircraft and cutting flying hours by 50 percent.

Furthermore, the Soviet Union counterbalanced reductions in its nuclear weapons by increasing its conventional capabilities, which it used to invade Afghanistan in 1979.

Born on July 9, 1921, in South Dakota, Jones grew up in Minot, N.D. A stop-over by Air Corps aircraft allowed him to talk with the crew, thereby planting his desire to fly. It wasn’t until college, though, that Jones began flying through the Civilian Pilot Training program, which was reorganized after the attack on Pearl Harbor. Jones enlisted in the Army Air Forces’ Aviation Cadet Pro-

gram, eventually becoming an instructor, and then piloting the B-17 when World War II ended.

In the Korean War, Jones flew the B-29. He led his crew on several bombing sorties striking bridges, enemy troops, and railways with excellent results. He completed 29 missions and was awarded the Distinguished Flying Cross before returning to March AFB, Calif. He later commanded both a KC-97 and B-47 squadron before departing for Strategic Air Command headquarters.

LEARNING FROM LEMAY

At SAC, Jones delivered a briefing to Gen. Curtis E. LeMay, who was so impressed with it that LeMay chose Jones as his aide-de-camp. LeMay later wrote about Jones in an Officer Effectiveness Report: “He has the will and motivation to be one of our outstanding leaders in the future.”

Jones paid back this opportunity by similarly mentoring many well-known

He served four years as Air Force Chief of Staff and another four as Joint Chiefs Chairman during a difficult and tumultuous period for the Air Force and Pentagon. Then, at retirement, he created an even larger legacy.



DAVID C.

David Jones during Civilian Pilot Training at Grand Forks, N.D., in 1941. He then went into the Aviation Cadet program.

Air Force leaders, such as Gen. Wilbur L. "Bill" Creech, who said he "admired the way he [Jones] challenged and overcame convention."

Jones was then offered a vice wing commander position, but opted instead to become a wing director of materiel, responsible for maintaining nearly 100 B-52 and KC-135 aircraft.

After graduating from the National War College in 1960, Jones reported to the Air Staff, where LeMay was Air Force Chief of Staff beginning in 1961.

Colonel Jones' new job entailed establishing requirements for the B-70 Valkyrie bomber, a position that involved briefing the department's most senior leaders. During one presentation, Secretary of Defense Robert S. McNamara remarked that it was "the finest" weapons system briefing to date. McNamara then informed Jones he intended to cancel the program.

Later, Congress summoned Jones to give the same brief. McNamara,

though, had changed the text but not the charts, resulting in a disconnected presentation. When asked by Sen. A. Willis Robertson of West Virginia if OSD had modified the briefing, Jones answered truthfully. This began a face-off between Congress and McNamara about whether to keep developing or cancel the Valkyrie.

At the time, Harold Brown was one of the Secretary's "whiz kids" who worked with Jones on the briefing and took note of the colonel's virtues. In *American Generalship*, Edgar F. Puryear Jr. acknowledged that Jones likely lost an initial promotion to brigadier general because the briefing to Congress had defied OSD leadership.

After this controversy and four years in the Pentagon, Jones made another unusual career-broadening move. Tactical Air Command chief Gen. Walter C. Sweeney Jr. wanted Jones to lead the newly reactivated 33rd Tactical

Fighter Wing, flying the brand-new F-4 Phantom. At the time, there were few transfers between bombers and fighters, due to different cultures and the needed piloting abilities. Recognizing this point, Sweeney directed Jones to train in the F-100 first because it was a challenging aircraft to fly.

Jones would later reflect on this move, stating, "I had already flown a lot in the B-52. ... To go into ... Tactical Air Command and into fighters would have been somewhat more risky, but much better ... to learn a lot about the Air Force."

As wing commander, his biggest success was in rebuilding the unit from scratch while integrating the new Phantom. Jones finished his tour with an "absolutely superior" ranking from Sweeney, who gave him a remarkable endorsement. At the time, many in TAC viewed Jones as a "SAC-type," not welcome in a predominantly fighter-focused command.



JONES

By John Edwards



Jones transferred to Vietnam in 1969 as deputy commander for operations at headquarters, 7th Air Force. He was a leading architect of Operation Commando Hunt, the effort to disrupt enemy supply lines along the Ho Chi Minh Trail. Jones oversaw the operational control of 17 wings and 10 groups and the tactical control of Navy and Marine aircraft.

While in Vietnam, Jones experienced firsthand the difficulty of integrating joint airpower without the authorities of a modern day joint force air component commander, or JFACC.

Returning to the United States, Jones assumed command of 2nd Air Force, where he had to lead the organization through the social challenges and racial unrest of the time. This issue became reality during a visit to Castle AFB, Calif. Jones recalled the base commander waking him at 2:30 a.m. to inform him that a group of black airmen had barricaded themselves in the service club, demanding that Jones see them.

After contemplating the situation, Jones determined he would meet with the airmen, against the advice of the wing commander. Harold W. Todd, Jones' aide at the time, who later became a major general, recalled that he feared for his boss' life.

Jones listened intently to the concerns of the 200 black airmen assembled. Before departing at sunrise, he reminded everyone of their military responsibilities and held a meeting later that same day to respond to their concerns.

Jones returned two weeks later to ensure the airmen had dutifully resumed their work and checked that the base's leadership had addressed the problems. When he discovered the base commander had not, Jones relieved him of command.

Jones was serious about leadership's active role in solving problems before they could affect the mission and made it a point to all his commanders about the importance of "open communications" in any organization. Many years later, Todd recalled that Jones was a compassionate leader who "genuinely cared for people."

Jones became vice commander of US Air Forces in Europe, focusing on reorganizing NATO's air forces. Then-Defense Secretary James R. Schlesinger decided Jones was the right man to replace Gen. George S. Brown as Air Force Chief of Staff.

Jones returned from Europe in 1974 to become the ninth Chief of Staff of the Air Force, shortly before President Nixon resigned from office. The next year, North Vietnam invaded and overran South Vietnam, thus ending a difficult conflict that had consumed American attention, resources, and lives for more than a decade. Its repercussions would be felt for several years.

One of the hard lessons of the Vietnam War was the significant decrease in the US-enemy air-to-air kill ratio, which plummeted from 10-to-one during the Korean War to one-to-one in 1972.

A classified study named Project Red Baron identified several causes of the degraded kill ratio that Col. Richard

"Moody" Suter would later use to develop the Red Flag exercise. Suter briefed the concept to Jones, who immediately recognized its value. Although the projected accident rates from such a program gave Jones and TAC commander Gen. Robert J. Dixon pause, they both realized the long-term benefits of such an exercise.

The first Red Flag occurred in November 1975. In a letter to the CJCS, Jones excitedly wrote, "Our first go at Red Flag ... was even better than we expected. ... I believe it holds great promise for a new era of realistic combat training and we are going to push it hard."

Although the Air Force's accident rate climbed the first few years of Red Flag, Jones remained steadfast in his support to continue the highly realistic exercise. In his book *Sierra Hotel*, C. R. Anderegg writes that the deputy chief of staff for plans and operations, Lt. Gen. Joseph G. Wilson, exclaimed, "At least we'll lose 'em doing smart things; right now we're losing them doing dumb things!"

Jones also oversaw improvements in the working relationship between the Air Force, Army, and Navy. This was timely as emerging concepts of air and ground integration would eventually result in the AirLand Battle Doctrine to oppose the growing Soviet conventional threat to Central Europe.

In supporting this effort, Jones set the tone for Air Force acquisition when he said in a 1975 *Air Force Magazine* interview, "Our first job ... is to help blunt and stop the [Soviet] armored thrust." As a result, the Air Force would build the A-10 as a survivable tank killer,

Left: Jones in the Korean War, after receiving the Distinguished Flying Cross as a B-29 pilot. Center: Jones (fourth from right) and B-52 crew members at Barksdale AFB, La., where he commanded 2nd Air Force. Right: As Chairman of the Joint Chiefs of Staff, Jones meets with the Army's 25th Infantry Division troops in Hawaii in 1979.



the EF-111 to counter mobile Soviet air defenses, and the E-3 AWACS to provide a picture of the airborne battlefield.

In fighting the Soviet maritime threat, Jones formalized an agreement with the Navy for Air Force B-52s to conduct sea surveillance and, later, anti-ship missions with the Harpoon missile. Replacing the venerable B-52 was also a challenge for Jones, who was an ardent supporter of the B-1. However, the Carter Administration canceled the B-1, with Jones' acquiescence. Unlike LeMay, who had appealed to Congress after the decision to cancel the B-70, Jones stood by Carter's decision, stating, "If we in the military ever get to the point where one weapon system means life or death to this country, then we have done [it] a disservice."

Although some on Capitol Hill and within the Air Force attacked Jones for not fighting harder for the program publicly, by not challenging the President's decision, Jones exemplified the proper order of the civil-military relationship. More tellingly, Jones' position was pragmatic, as he was aware of top-secret programs in development that included the Air Launched Cruise Missile and what would become the F-117 stealth fighter program.

Yet critics of his decision continued to raise the issue when Carter nominated Jones to be the next JCS Chairman.

FLEXIBILITY, INTEGRITY

When Jones became the JCS Chairman in 1978, some wrote that he was a "political" general who would be pliable to

an Administration determined to reduce military spending. Yet, in Jones, Carter recognized a leader who possessed the flexibility to adjust to the new national security environment. Furthermore, Harold Brown, who had wrestled with Jones over the B-70 program nearly two decades earlier and had witnessed firsthand Jones' integrity and professionalism, was now Defense Secretary. A good working relationship would be crucial as the Secretary and Chairman confronted the "hollow force" and continued threats abroad.

Soon after, Iranian students in November 1979 stormed the US Embassy in Tehran, taking dozens of Americans hostage. In planning the daring but unsuccessful Operation Eagle Claw rescue mission, Jones created a special group on the Joint Staff, because no organization existed at the time that could integrate the various units needed for it. Nevertheless, the April 1980 rescue was hampered by separated training, lack of established relationships, provisional command structures, and tactical complexity.

At the highest levels, Jones wanted a clear chain of command. He later recalled, "I told General Vaught [Army Gen. James B. Vaught, the overall commander of the operation] that his primary responsibility was to make the mission successful. If he needed help from us, ask for it. We would like to be kept informed but not at the expense of his performing the mission. I told President Carter that as I got information I would inform him. ... I would not bug Vaught. The President didn't bug me."

During the operation, three of the eight helicopters were unable to continue the mission, and the rescue team commander recommended a mission abort. When the call reached Jones, he agreed with the field commander, then notified Carter, who approved terminating the effort.

Unfortunately on the return mission, one of helicopters crashed into a parked C-130, engulfing both in flames and killing eight personnel. Although the disastrous ending was not a direct result of the abort decision, the investigating board identified several issues that Jones wanted solved, to include breakdowns in planning, training, and coordination among all the services.

Realizing that fundamental organizational changes would take time and concerted effort, Jones established the Chairman's Special Study Group to examine joint problems within the military. The studies group concluded the JCS corporate body needed to be more joint minded and less service oriented, but the group's findings were not a mandate for the services to change. In fact, Locher wrote that two services were preparing to block Jones from implementing any of the study's recommendations, highlighting its potential to threaten existing service parochialism.

Further, the new Defense Secretary, Caspar W. Weinberger, had little interest in defense reform as he was focused on implementing President Reagan's military buildup. With little support from OSD and obstinacy by the services, Jones sought another venue to change the US military.



Left: At an Air Force Association event in 1975 Jones, then USAF Chief of Staff, announces an agreement between the Air Force and the Navy covering sea control missions. Below: The shift in favor of defense reorganization began with Jones and gained further momentum when Sen. Barry Goldwater (left) became Senate Armed Services Committee chairman. The Arizona Republican made defense reform a top priority.

On Feb. 3, 1982, Jones testified on defense reorganization to the House Armed Services Committee, where he dropped his “bombshell,” as Locher put it.

Jones made five recommendations: Increase the CJCS’ role, limit service staff parochial influence, ensure the JCS is fully staffed, expand the powers of the geographic commanders in chief, and improve joint duty preparations and rewards. After hearing Jones’ testimony, Rep. Ike Skelton (D-Mo.) told him, “This seems to me to be a rather courageous thing for you to do. I think it is something that should get the utmost attention from this committee and from Congress.”

After serving a four-year term as Joint Chiefs Chairman, Jones retired from Active Duty in June 1982.

In retirement, Jones avoided serving on the boards of major defense organizations, to maintain his integrity in fighting for defense reform. Nonetheless, his subsequent testimony and advocacy was attacked by some service chiefs and Secretaries who viewed reform as detrimental to service prerogatives.

Further pressure to change occurred in 1983 when the US intervened in Grenada, forcing the Pentagon to form once again an ad hoc combined joint task force. While successful, Operation Urgent Fury highlighted several deficiencies in joint operations—unfortunately, some that were previous lessons gone unlearned.

The after-action report did reveal the effectiveness of a small number of multi-service planners who had previous joint experience. With another military operation exposing weakness in joint combat, the push for reform was reaching an apex.

Finally, in September 1986, Congress passed the Goldwater-Nichols Department of Defense Reorganization Act that Reagan signed into law Oct. 1. According to Locher, Goldwater-Nichols “finally corrected the distortions of power and



influence ... that [had] troubled US security for 40 years” after World War II.

Goldwater-Nichols passed its first test in 1989 during Operation Just Cause in Panama and faced a larger trial in the 1991 Persian Gulf War. Reflecting on the success of integrating airpower from all the services in Desert Storm, the combined force air component commander, Gen. Charles A. Horner, stated the act had a “deep and far-reaching effect on our military.”

Jones’ accomplishments were somewhat overshadowed by the events of his era—the loss of Vietnam, the “hollow force,” and Operation Eagle Claw, to name a few. Yet those challenges are not unlike the ones confronting the Air Force and the US military today.

Faced with internal fiscal pressures and external security threats, Jones worked assiduously to ensure the US military

was trained, organized, and equipped to fight. He had a vision for what the military must do to better prepare for future conflicts. While he began the effort to make the US military operate more jointly, Jones should be remembered most for his deft balance of mission and people.

Jones stated in *Air Force Magazine* in 1978, “The real Air Force is our people—men and women, Active [Duty] and reserve, uniformed and civilian—living by an extraordinary set of standards and sacrifices, breathing life into the cold metal of our nation’s arsenal.”

David C. Jones died on Aug. 10, 2013, and was laid to rest last October at Arlington National Cemetery. The defense reforms that he initiated more than three decades earlier fundamentally reformed the Defense Department, interservice cooperation, and the very concept of joint operations. ■

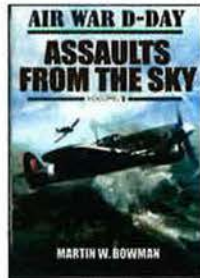
Lt. Col. John Edwards is chief of strategic concepts on the Joint Staff in the Pentagon. A B-52 electronic warfare officer, he previously commanded the 96th Bomb Squadron at Barksdale AFB, La. This is his first article for Air Force Magazine.

Books

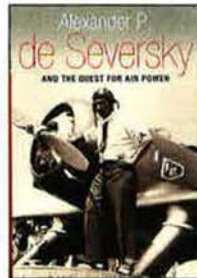
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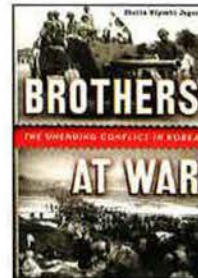
Airpower Classics: Air Force Magazine's Collection of Classic Military Aircraft from Around the World. Zaur Eylanbekov. Order from: www.afa.org/book (800-727-3337). 135 pages. \$49.95.



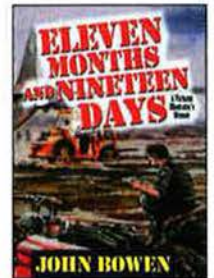
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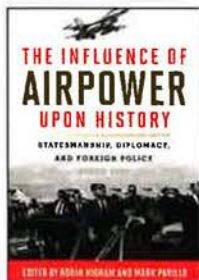
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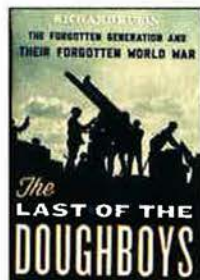
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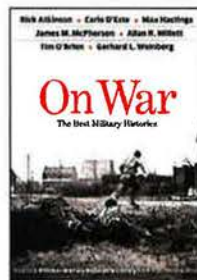
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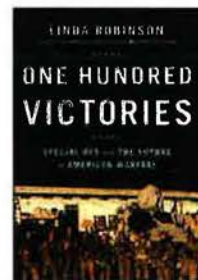
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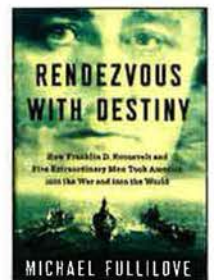
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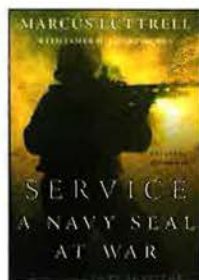
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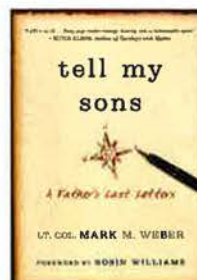
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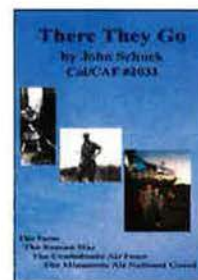
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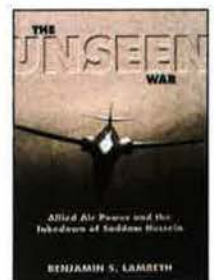
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SAVING THE LEGACY

Lafayette Escadrille

WORLD WAR I is remembered today chiefly for the horrors of trench warfare, gas attacks, and long stalemates punctuated by murderous waves of attrition. One romantic notion that persists, however, is that of the dashing young fighter pilots,

flying high above the carnage in their newfangled biplanes and triplanes, urging their colorful machines up to do skillful single combat with the enemy.

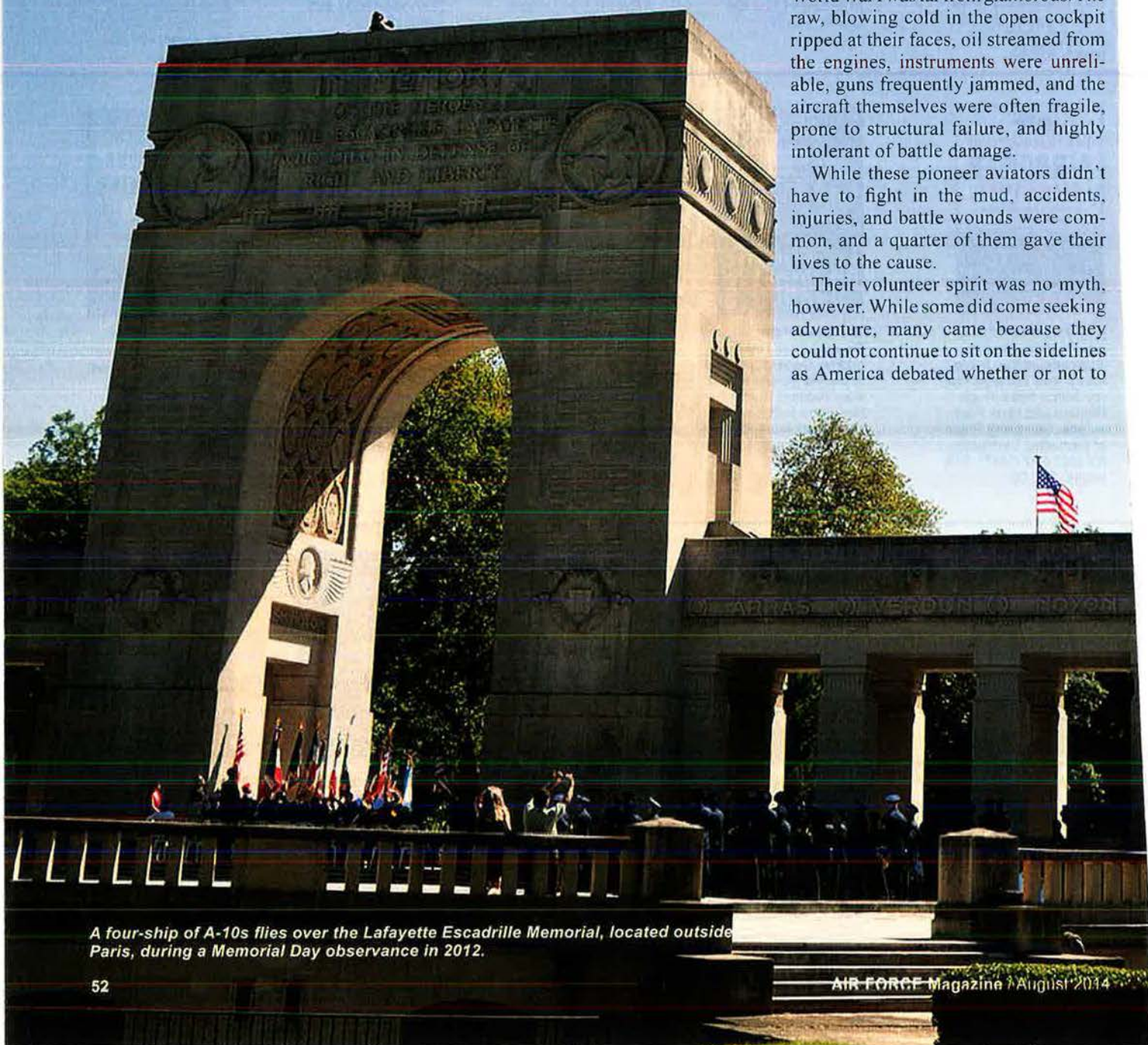
Much of that mythology grew up around the Lafayette Escadrille, a squadron of Americans who volunteered to fly and fight alongside France. They were

darlings of the press, and their exploits made for front-page fodder around the world.

Much of it was, indeed, mythology. While these fliers cut heroic figures in their helmets and flying scarves—their Nieuports and SPADs inspired a generation—the reality of aerial combat in World War I was far from glamorous. The raw, blowing cold in the open cockpit ripped at their faces, oil streamed from the engines, instruments were unreliable, guns frequently jammed, and the aircraft themselves were often fragile, prone to structural failure, and highly intolerant of battle damage.

While these pioneer aviators didn't have to fight in the mud, accidents, injuries, and battle wounds were common, and a quarter of them gave their lives to the cause.

Their volunteer spirit was no myth, however. While some did come seeking adventure, many came because they could not continue to sit on the sidelines as America debated whether or not to



A four-ship of A-10s flies over the Lafayette Escadrille Memorial, located outside Paris, during a Memorial Day observance in 2012.

OF THE Lafayette Escadrille



enter the war. Some joined because they had family ties to France, some simply because “it was the right thing to do,” said retired Gen. T. Michael Moseley, Chief of Staff of the Air Force from 2005 to 2008.

Nearly 100 years after the unit’s founding, the principal monument to the Lafayette Escadrille is a memorial outside of Paris, off the road to Versailles. It is a victory arch inscribed with the names of World War I American and French aviators connected with this unique unit. Some of them are buried there in an underground crypt.

The memorial was poorly sited, however, and has suffered from chronic flooding and long neglect. It is in urgent need of restoration, and a group of modern airmen have taken on this task.

The Lafayette Escadrille fought in many of the big campaigns during the war, performing reconnaissance mis-

sions, balloon-busting, and fighting for control of the skies. “It was the origin of what we today call air dominance,” Moseley said, and the mission was a crucial one for the Allied forces. Some of its members grew quite adept at employing this new instrument of airpower.

One was Gervais Raoul Lufbery, who racked up 17 air-to-air victories during the war, a total likely well short of his true achievement.

“Lufbery would certainly have been the leading American ace, outscoring [Eddie] Rickenbacker, ... if all his kills had been witnessed from the ground,” said retired Gen. Merrill A. McPeak, 14th Chief of Staff and now chairman of the American Battle Monuments Commission.

In World War I, “if you made a claim of a kill, it had to be witnessed by somebody,” but Lufbery scored many of his victories far behind German lines,

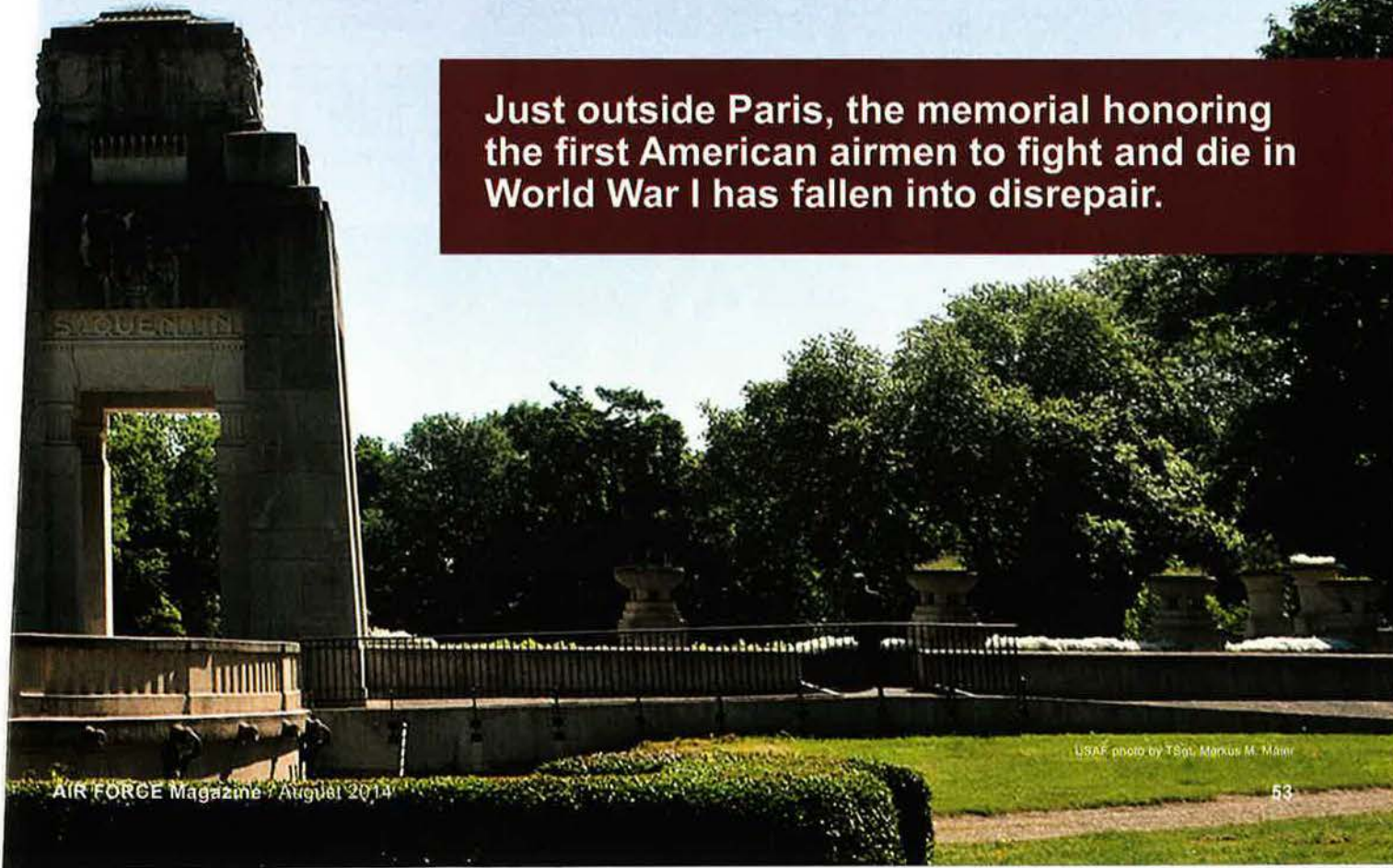
By John A. Tirpak, Editorial Director

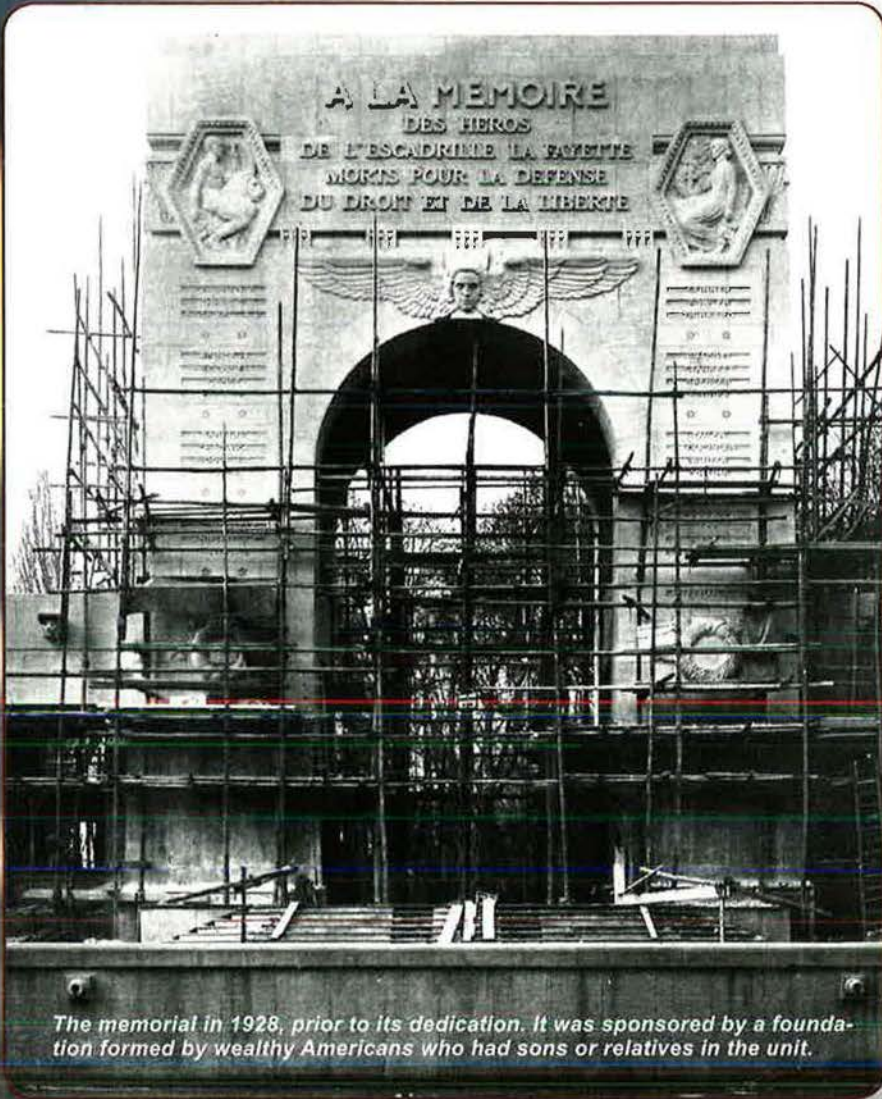
McPeak said, so there were no willing witnesses to acknowledge them. “So he didn’t get credit for half of his kills,” McPeak observed. “This is a great story about an American who’s famous but maybe should be even more famous.”

Besides an impressive combat record, the members of the Escadrille left another, even more important, legacy. They developed maneuvers and tactics—one of them bearing Lufbery’s name and still used today—and served a crucial mentoring function for the American aviators who followed them when the US officially entered the war. As the combat-seasoned veterans, they passed their knowledge on when they were absorbed into the American Air Service squadrons, which had no prior air-to-air combat experience.

“These guys ... provided a nucleus of combat aviators at a time when we really needed them,” McPeak said.

Just outside Paris, the memorial honoring the first American airmen to fight and die in World War I has fallen into disrepair.





The memorial in 1928, prior to its dedication. It was sponsored by a foundation formed by wealthy Americans who had sons or relatives in the unit.

They were “the fathers of American combat aviation,” asserted Moseley.

The Air Force 1st Fighter Wing’s 27th and 94th Squadrons trace their heritage directly back to the Lafayette Escadrille, Moseley noted.

Moreover, “if you put those Escadrille pilots in the same room with F-22 pilots” of those squadrons today, the conversation about tactics, formations, and maneuvers “would be understandable to both sides,” Moseley said.

ESCADRILLE AMÉRICAINE

The founders of the Escadrille were following in the footsteps of other Americans who had already joined the French war effort, either as ambulance drivers or combat infantrymen serving in the French Foreign Legion. In 1914, two Americans—Norman Prince and William Thaw, who had volunteered to fly with the French—developed the idea of an all-American squadron within the French air service. Like many other volunteers who would come later, Prince and Thaw were from wealthy Eastern US families, well-connected to monied interests in the US and in Paris, and they were soon able to get their idea before the French Minister of War, Étienne Alexandre Millerand.

Millerand was not enthusiastic at first, but changed his mind when he saw the tremendous attention and sympathetic press bestowed on his American fliers when they went home on leave in 1915.



The Lafayette Escadrille in 1917. Also pictured are “Whiskey” and “Soda,” the unit’s lion cub mascots. Likenesses of Whiskey and Soda are carved into the memorial’s base.

Soon after, the Escadrille Américaine was formed, bringing together American pilots who had been serving in various squadrons throughout the French air service.

There were initially seven members of the unit. It officially stood up in April 1916. At the request of the US, its name was changed to Escadrille des Volontaires after Germany protested that the neutral US was sending soldiers to fight in the war. The name Lafayette Escadrille became official in January 1917.

The Escadrille eventually comprised 38 American pilots and four French officers, including their commander, Capt. Georges Thenault. Together they scored 39 confirmed combat victories and 100 more unconfirmed kills over some 3,000 combat patrols in just short of two years of flying. Ten of the original 38 were killed in combat.

The attention lavished on the Escadrille produced the desired effect: Volunteers soon began to stream from America, far more than could be accommodated by the small squadron. Soon, the Lafayette Flying Corps (originally the Franco-American Flying Corps) was created and its 270 or so members parsed out to other French air service units. These included new volunteers as well as Americans who had served in other squadrons or in bombardment units.

Funding was provided by big names in the American financial world, such as J. P. Morgan and William K. Vanderbilt, who had extensive properties in France, had lent the French government considerable amounts of money, and wanted to see the US enter the war to assure an Allied victory.

The domestic US enthusiasm for the Lafayette Escadrille and later the Lafayette Flying Corps, coupled with the heightened frictions between the US and Germany, brought the US into the war in 1917. In February 1918, the airplanes and related gear belonging to the Escadrille were absorbed into the US Air Service; the French support personnel were replaced by the 103rd Aero Squadron.

The Lafayette Escadrille Memorial—which also honors the follow-on Lafayette Flying Corps—was dedicated in 1928 by a foundation that took on its perpetual care. The foundation was “endowed by some very wealthy, mostly East Coast monied families—people who’d had sons or relatives in the Lafayette Escadrille, which ... had some very prominent people in it,” said McPeak. However, the endowment was invested



USAF photo

The First African-American Fighter Pilot

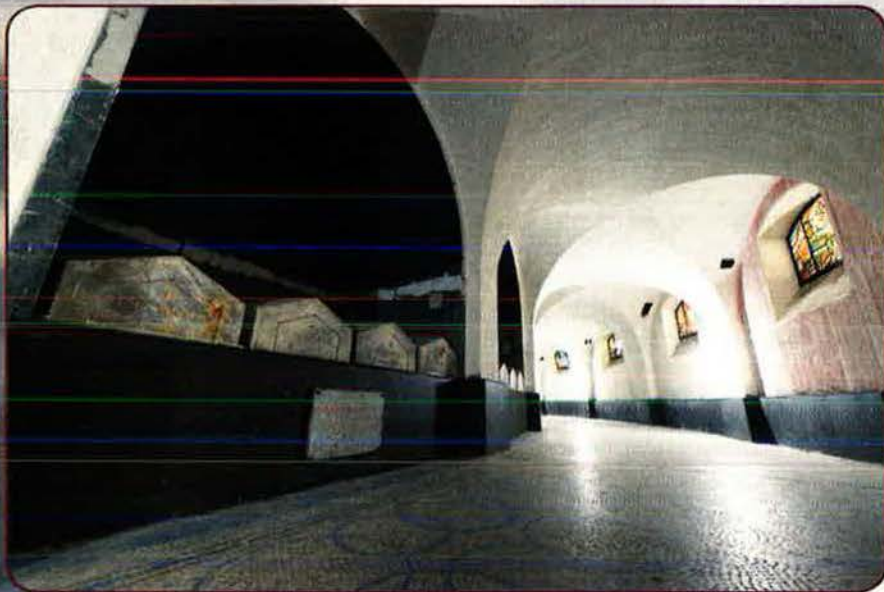
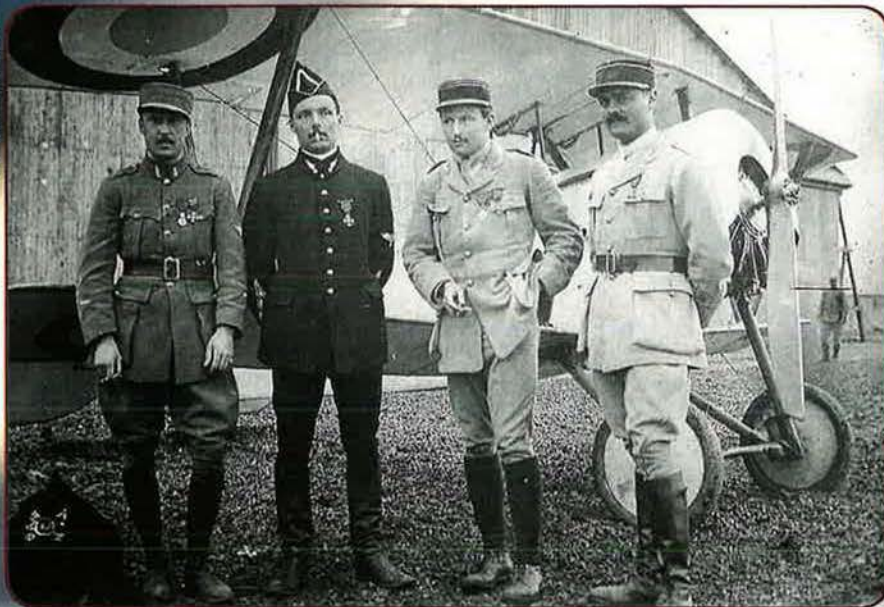
Among those who saw combat flying in World War I was Eugene Jacques Bullard (shown here with his pet monkey, Jimmy), an African-American who was living in France and had served (and been seriously wounded) in the French infantry. For his service, he was awarded the Croix de Guerre and Medaille Militaire. In 1916, he volunteered to join the French air service and trained first as a gunner and then as a pilot. Though he asked to join the Lafayette Escadrille, it was no longer accepting new pilots when he became qualified. Instead, he became a member of the Lafayette Flying Corps and served with French flying units, completing some 20 missions.

Bullard was officially credited with one kill and scoring up to five unconfirmed kills. When the US entered the war, Bullard was the only member of either the Lafayette Escadrille or Lafayette Flying Corps not invited to join the US Air Service, because it only accepted white men.

In the post-World War I years, Bullard was a musician in the Paris jazz community and owned a nightclub called “L’Escadrille.” In World War II, he agreed to serve France as a spy; fluent in German, he eavesdropped on the Germans who frequented his nightclub. He later volunteered to serve with a French infantry unit, but he was badly wounded and left the service.

Bullard eventually moved back to the US, and while he was considered a hero in France, he was practically an unknown in his native country. In 1954, the French government invited him to participate in ceremonies commemorating the 40th anniversary of World War I and in 1959 named him a national Chevalier, or Knight.

In 1960, during a state visit to the US, French President Charles DeGaulle insisted on meeting Bullard, who was at that time working as an elevator operator in New York City. Bullard died the following year.

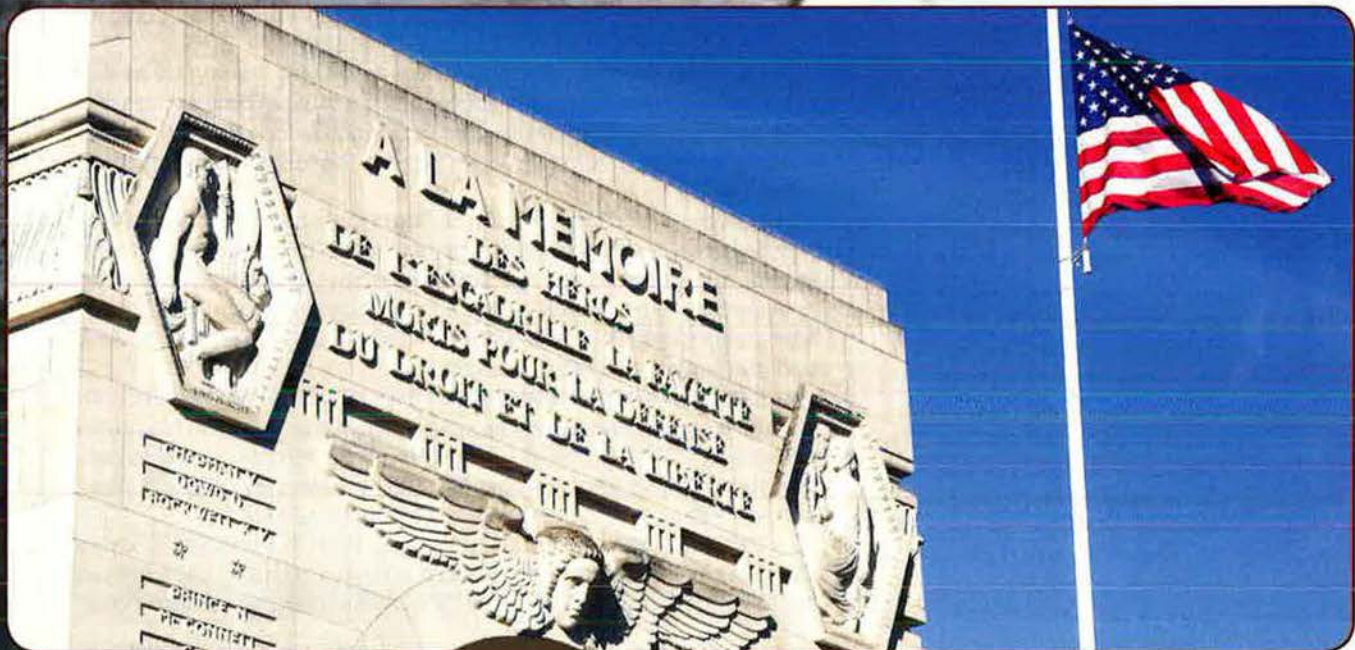


mostly in stocks. "Almost immediately, along came the market crash," McPeak said, and as a result "the foundation, which holds title to the property" and is responsible for maintaining it, "has been running on empty for a long time."

The condition of the memorial came to Moseley's attention in the early 2000s, when he was contacted by then-Commander of US Air Forces in Europe, Gen. Gregory S. Martin.

Moseley recalled that Martin had attended a ceremony at the memorial and was embarrassed in front of his French hosts by its condition. Moseley, then the head of Legislative Liaison, worked with members of Congress such as Rep. John P. Murtha (D-Pa.) and Sen. Daniel K. Inouye (D-Hawaii) to get "a couple million dollars" appropriated to fix the memorial up. Civil engineers from USAFE made a site assessment in conjunction with counterparts from the French Defense Ministry, and there was additional money donated from the Mona Bismarck Foundation, which promotes Franco-American artistic joint ventures. "And we did it," Moseley said, but the work done was only cosmetic. Though the monument was cleaned, profound underlying problems were not addressed.

Top: American pilots Sgt. Elliot Cowdin (l) and Lt. William Thaw (r) with Lafayette Escadrille commander Capt. Georges Thenault (second from right) and French officer Lt. Alfred de Laage de Moux. Left: The remains of 49 air- men are in a crypt under the memorial. Below: An inscription at the top of the memorial reads, "In memory of the heroes of the Lafayette Escadrille who died in defense of law and liberty."



The memorial was built on land with a high water table; water intrusion is chronic, walkways pond after it rains, the crypt frequently floods, and “stalactites” were formed on the limestone ceilings.

“It needed a long-term plan,” Moseley said.

MAKING IT HAPPEN

Resolved to do something permanent to address the monument’s condition, when he became Chief of Staff, he tried to get the American Battle Monuments Commission to take the site over and properly care for it. However, the ABMC “said, ‘Under no circumstances will we accept this,’” Moseley reported.

The ex-Army leadership of the ABMC “dug in their heels” and insisted that the Lafayette Escadrille was not an American combat unit, and therefore its monument was ineligible for US government assistance, Moseley said.

McPeak explained that “the Lafayette Escadrille stood up in April 1916. And therefore, it predates our entry into the war and therefore, technically—legally—is outside the ... mission statement of the ABMC.” He agreed with Moseley’s assertion that the Escadrille memorial was not a high priority for previous ABMC chairmen. With the exception of retired USMC Gen. P. X. Kelley, all of them—starting with Gen. of the Armies John J. Pershing himself—were former Army five- and four-star generals. The ABMC was resistant to taking on a project it was not legally responsible for, as it already had 25 cemeteries on foreign soil to look after, 11 in France.

The project languished until McPeak was appointed to chair the ABMC.

“I am the 10th chairman of the ABMC and the first airman,” McPeak said. “And I think it’s fair to say that I took a slightly different attitude about the Lafayette Escadrille Memorial.” McPeak said he persuaded the rest of the commission—presidential appointees—that “yes, this is special, this is about Americans who died in World War I, and this is a glorious chapter in airpower history, and we ought to do what we can” to rescue the monument.

The ABMC, as “a sign of good faith,” Moseley said, commissioned a 2010 study from CH2M Hill, which assessed the condition of the monument itself, the crypt, the grounds, and the site in general, covering about 11 acres. The study confirmed that the biggest problem is water intrusion; to preserve it will require building “a bathtub around it” underground to keep the high water table

at bay, said Jerry L. Hester, chairman of the Lafayette Escadrille Memorial Working Group.

According to the study, the monument and grounds are to be rehabilitated in a two-phase approach. Phase 1 will simply stabilize the monument, make physical repairs to the stonework, roof, and a broken fountain, and create an underground barrier to “keep the water out,” Moseley said. It will involve a cleaning of the monument, blackened by air pollution from nearby Paris, and sealing the stonework to be more resistant to pollution in the future. Air-conditioning and ventilation will be added to the crypt to control humidity and prevent plastered areas from flaking off.

“When we get it done, it’ll be safe and secure and in very good shape for another hundred years,” McPeak asserted.

Phase 2 would be more ambitious. Hester said it will involve some kind of interpretive facility or visitor center, plus “it needs a parking lot and pedestrian paths and things like that,” including highway signage to steer people to the site and “unattended but fast-response-type security” to deal with vandals and deter graffiti. The CH2M Hill study said the originally planned Beaux Arts garden “will finally be realized,” and a disused caretaker’s house will be demolished.

About two years ago, the ABMC and its counterparts at the French Defense Ministry “agreed to agree” on a rescue plan, where both sides will pay half the restoration fees, McPeak said. Then, in February of this year, McPeak traveled to France and signed an agreement saying the US and France have each pledged to pay more than \$4 million to rehabilitate the facility.

The goal is to get it done in time for the April 2016 centenary commemoration of the founding of the Lafayette Escadrille.

“Now, if you track back and try to establish milestones from that, we’re already late getting it started,” McPeak said.

“I’d like to have it done” in time for the centennial, he said, because “I’m sure the French will schedule something in April of 2016.” The Escadrille represents “the first involvement of Americans in World War I, in an organized way,” and the monument also contains the tombs of two French comrades.

Phase 2 is not part of the current action plan, however, McPeak said.

“You’re going to have to want to see this thing” to get to it, he said. His priority is to “get it back ... in mint condition” and leave it that way. A French firm has

already been selected to do the architecture and engineering work.

Hester, who is also a commissioner for the US World War I Centennial Commission, said it will cost about \$500,000 a year to maintain the memorial. Money will be raised for this purpose, and McPeak said he thinks the US government may eventually contribute to the restoration efforts (though the request has not yet been made), especially if the restoration is privately funded and the foundation demonstrates that it can raise money.

“My vision of it ... [is] this is a public-private partnership,” McPeak stated. He said he’s certain the money can be raised—and quickly. He doesn’t want to ask Congress for money “until I can demonstrate we have support behind us in the private sector.”

Hester noted that Ross Perot Jr. donated \$125,000 to print brochures for the fund-raising effort, and the finances have been arranged so that any money donated to restoring the memorial will not be “comingled” with any of the other ABMC funds, meaning they can’t be spent on anything else. On the French side, the money will be collected and held by the Lafayette Escadrille Memorial Foundation, “based in Paris, and they in turn will turn the funds over to the ABMC,” he explained.

The World War I Centennial Commission is planning some events in the United States, such as a New York City parade, a “Fleet Week in New York City” in 2019 to commemorate the return of the doughboys a hundred years earlier, a series of conferences, documentaries to air on the A&E Network/History Channel, a commemorative book or booklet about the airfields where the Escadrille flew, and possible US participation in the 2017 Bastille Day parade in Paris.

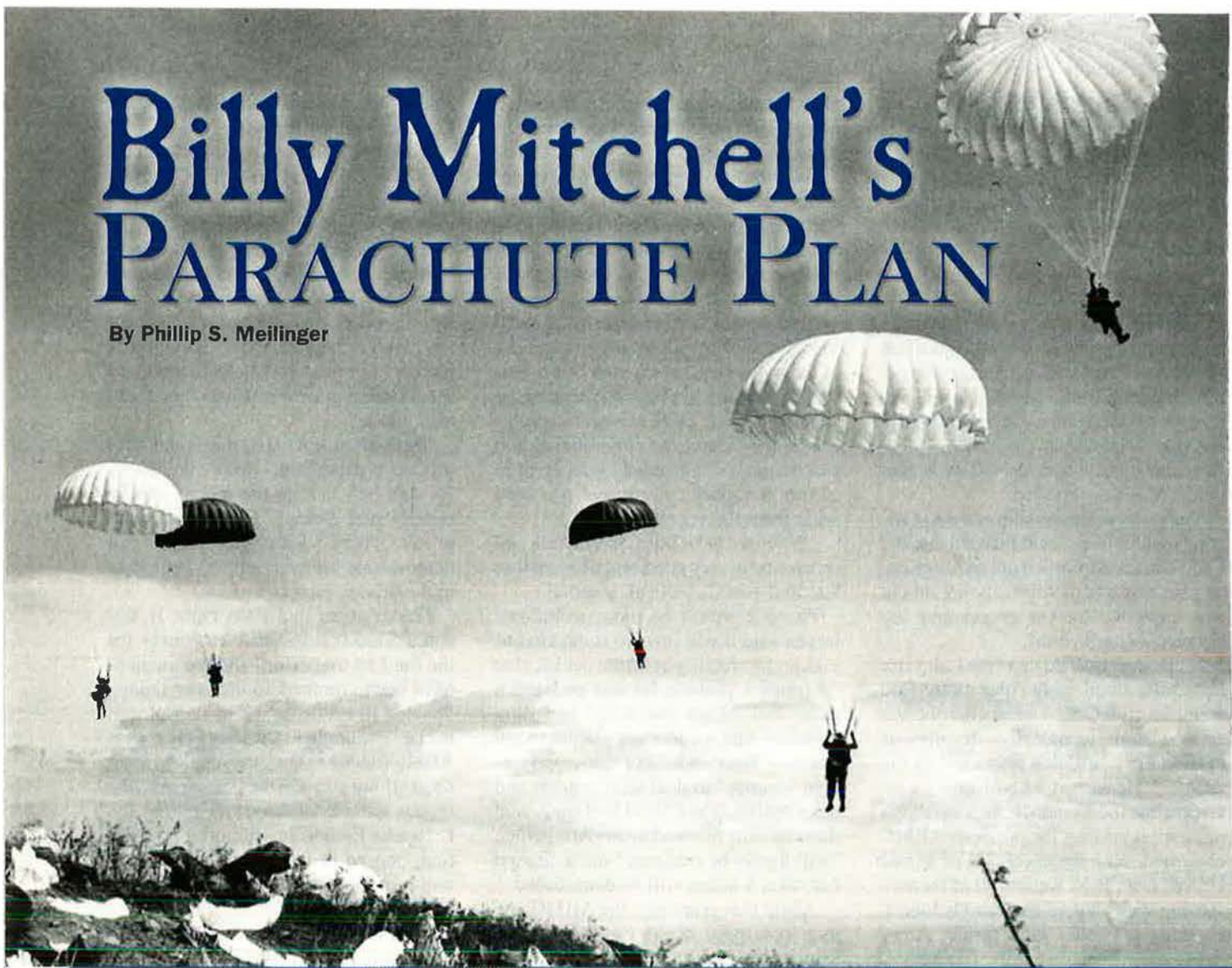
However, due to the sequester, the Defense Department has not been able to confirm participation in any of these events until there is more clarity on what funds will be available to support them.

A fly-in of World War I vintage aircraft is slated for this September at the National Museum of the US Air Force in Dayton, Ohio.

However, the Lafayette Escadrille Memorial “will be the US Air Force’s primary memorial in Europe for the World War I” commemoration, Hester said. “There’s no other memorial there.” The Lafayette Escadrille Memorial has been “an orphan,” but it will be brought back “to a point where everybody can be proud of it.” ■

Billy Mitchell's PARACHUTE PLAN

By Phillip S. Meilinger



IN April 1940, as part of Hitler's plan to invade Norway, 24 Ju 52 transport aircraft, escorted by two twin-engine fighters, dropped 130 German paratroopers near Sola airfield at Stavanger. Dropped from an altitude of just 400 feet, the paratroopers landed and secured the valuable airfield in an hour. German reinforcements began flooding in by air; Norway fell in days.

The operation was the first major combat paratroop drop in history. Many would follow, and paratroop forces—quite a bit larger than the relatively small contingent at Stavanger—came to be fielded by all the great powers of that war.

This new concept—vertical envelopment—didn't originate in World War II, however, but in World War I. Brig. Gen. Billy Mitchell, the top American air commander of that war, devised a plan for dropping a division of American infantrymen behind German lines. The war ended before the plan could be executed, but it

was startlingly original and clearly visionary.

For most of World War I, the Western Front was a stagnant and bloody trench war. Frontal assaults were common because outflanking maneuvers were impossible—the front stretched in an unbroken line from the North Sea to Switzerland. Generals on both sides made numerous attempts to break the stalemate, using rolling artillery barrages, poison gas, flamethrowers, new penetration tactics, tanks, and attack aircraft. They hoped to break through the lines and create flanks, thus restoring mobility to the battlefield.

These tactics were at best only moderately successful and then only at certain times and places. Even the huge influx of fresh American infantrymen in early 1918 made little difference. It appeared the bloodbath would continue.

Mitchell thought in the third dimension, however, and parachutes came to his mind.

Parachutes weren't a new idea; they'd been used by daredevils jumping out of

balloons at fairgrounds for a century. The first successful military jump from an airplane occurred in March 1912, made by a US soldier at Jefferson Barracks, Mo. During World War I, soldiers in tethered observation balloons deployed along the Western Front wore parachutes because the balloons came under frequent attacks from enemy pursuit (fighter) aircraft.

A DEADLY VISE

A downed balloon was counted as an aerial victory, and some pilots became aces based on their ability to “flame sausages.” Frank Luke received the Medal of Honor for such actions—downing 14 German balloons in less than three weeks. When an attack came, it was standard procedure for winch operators below to rapidly lower the balloon, but not before the observer in the basket quickly jumped out and deployed his parachute.

Italy began parachuting spies into enemy territory during the war, and the French dropped two-man demolition crews behind German lines in

AIRBORNE OPERATIONS WERE VITAL IN WORLD WAR II, BUT BILLY MITCHELL HAD DEvised A CREDIBLE PLAN IN THE LATE DAYS OF WORLD WAR I.



At left: US paratroopers land in the Philippines in 1945. Here: C-47s drop paratroopers into the Netherlands during Operation Market Garden in 1944. Brig. Gen. Billy Mitchell had proposed such attempts at "vertical envelopment" more than two decades earlier.

early 1918. Mitchell knew of these activities. He had already employed aircraft in mass formations to clear the skies of enemy aircraft and to strafe and bomb enemy troop positions and supply lines. In September 1918, he had commanded more than 1,400 Allied aircraft, an unprecedented total, during the Meuse-Argonne offensive. The next month he approached Gen. John J. Pershing, commander of the American Expeditionary Forces, with an idea to break the trench stalemate.

Mitchell proposed using British-made Handley Page bombers, as well as Italian-built Capronis, to drop infantrymen plus medium-size machine guns behind enemy lines. He argued that such a surprise attack would catch the Germans manning the trenches in a deadly vise—Allied infantry would attack from the front while the paratroopers would attack from the rear. The Germans would undoubtedly break and flee, and mobility would finally be restored to the battlefield after nearly four years of stalemate.

In his war memoirs, Mitchell wrote that he'd suggested to Pershing that the entire 1st Infantry Division be assigned permanently to the Air Service. Pershing mulled the idea for a few minutes and then told him to go ahead and begin planning. He would decide if the plan looked feasible after he saw more details.

Delighted, Mitchell hurried back to his headquarters at Ligny-en-Barrois to lay the idea before his staff. He directed his operations officer, Maj. Lewis H. Brereton, to begin planning for a major airborne operation to take place the following spring. In his own memoirs, Brereton wrote that Mitchell "dumped plans in my lap" and told him to get busy.

The war ended three weeks later, however, so the drop would not go into action, and planning did not get very far. Nonetheless, Mitchell spoke and wrote about the idea after the war was over.

In March 1919, Mitchell gave a speech to the Society of Automobile

Engineers in New York. This group was one of the most prestigious organizations of scientists and engineers in the country, and Mitchell revealed the idea he'd pitched to Pershing five months previously. Mitchell said, "We had a plan, which we were going to try this spring if the war had not stopped, and it would have worked, too. We were going to send our men over the German lines in airplanes and drop them down in parachutes and let them attack the enemy in the rear, while our men were attacking the front."

He said he planned to use the 1st Infantry Division—12,000 men—to be dropped at Metz. His plan was superior to those being drawn for a major ground offensive against Metz, because that city was guarded by "division after division of the crack troops of the German army, anticipating our move." Using the ground plan, Metz would eventually have fallen, Mitchell argued, but at tremendous cost—yet another bloodbath for which the Western Front had become infamous.



AP photo

Writing in a May 1926 newspaper article, Mitchell stated that he'd been promised the use of 60 squadrons of Handley Page bombers—1,200 aircraft—and that he would also be given the services of a top infantry division. The Handley Page O/400 was a heavy bomber used by the Royal Air Force to strike German positions, airfields, and industrial facilities. Mitchell calculated that each aircraft would be able to carry 10 fully loaded paratroopers as well as two medium-size machine guns.

The Handley Page was a big aircraft, but even so, at 10 men per airplane, it would take a huge air fleet to transport an entire division. By war's end, the RAF had some 250 Handley Pages operational, with another 1,500 on order. Moreover, the Handley Page V/1500 was also entering production. This four-engine behemoth would be able to carry up to 20 paratroopers.

Paratroopers on each aircraft would carry extra bandoliers of ammunition plus machine guns. This mighty air armada would be escorted by hundreds of pursuit and attack airplanes. Three miles from the front lines these escorts would break to the left and right, and "at a predetermined moment, those attack planes ... were to wheel and make flank attacks on the enemy's front-, second-, and third-line trenches in that sector, turning their machine guns and light cannon on the foot troops."

The converted bombers would then swoop low and deploy their paratroopers. Pursuit aircraft would be orbiting close by to protect the descending soldiers from enemy fire. Once the troops were on the ground, the pursuit and attack airplanes would continue to attack the enemy positions and prevent counterattacks while the paratroopers assembled and took up defensive posi-

tions. The pursuit aircraft would then join up with the bombers and escort them back to friendly territory.

Mitchell continued that once the paratroopers were on the ground, the converted bombers would be able to resupply them with ammunition, food, and other supplies with little difficulty.

Men would be lost during the drop, Mitchell admitted, and those on the ground would be somewhat vulnerable, but he noted that those soldiers would have a potential strength of 2,400 machine guns.

"If we could have only got 10 percent in action against the enemy's rear, we should have been successful. One machine gun, properly placed, can hold up a battalion at times," Mitchell asserted in the May 1926 article. He added that the Germans would have been subjected "to the most withering fire ever known. ... The pathway would have been thrown open for the American Army to advance into Metz."

WOULD IT HAVE WORKED?

By this time, Mitchell had already been court-martialed, found guilty, and resigned. Undoubtedly he was a bit more exuberant about his plan's chances than was warranted. Indeed, one of his purposes was to complain about the sorry state of American airpower. He made the case that revolutionary operations should be continually tried and tested—but were not.

Mitchell further argued that it is the duty of planners to prepare for such contingencies in peacetime so that they can be quickly put into action if war occurs. Alas, "we have no general staff today and no aerial army." While he voiced his hope that God would have mercy on America, he insisted the Air Corps must

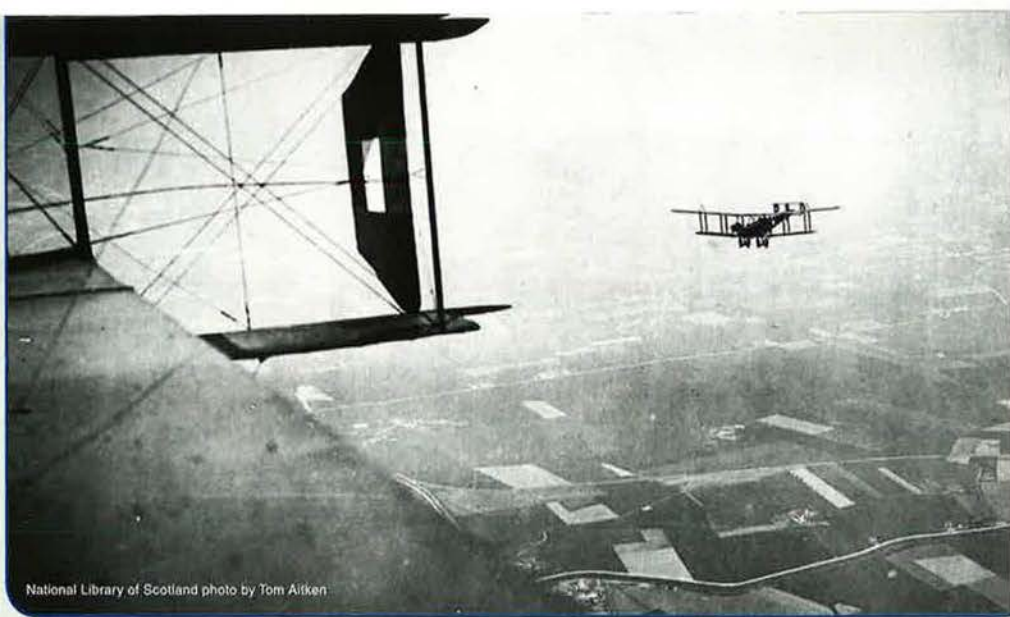
be expanded, saying, "Almighty God helps those who first help themselves."

Clearly, Mitchell's concept for an airborne operation was visionary, but was it feasible? When he proposed the idea in October 1918, there were nowhere near the 1,200 bombers available that Mitchell said would be necessary. Yet, orders had been placed for more, and it is likely such a number of Handley Pages and Capronis would have been in service by the spring of 1919. Would that many aircraft have been entrusted to a young brigadier general? Some 1,400 combat aircraft, consisting of units from the French and British air arms besides the Air Service, had been under his command at the Meuse-Argonne, so the notion of Mitchell leading an airborne air armada is not far-fetched.

The bombers would have needed to be modified. Although the British and Italian aircraft would have been large enough to carry 10 to 20 men plus their equipment and extra machine guns, the airplanes were not designed for such a purpose. In addition, some provision would have had to have been made for the paratroopers to exit the aircraft—simply jumping out of the observer's cockpit opening would have been cumbersome at best. Even so, adding seats or benches and providing a side door for the paratroopers to exit would not have been difficult.

Training would have been the critical factor. An entire infantry division would have had to go through the training necessary to become paratroopers. This would require even more aircraft and a great number of parachutes. There would have been accidents, and all of this would have taken time.

In addition, Mitchell prefaced his plan by stressing that a main advantage to an airdrop operation would be the ele-



National Library of Scotland photo by Tom Aitken

ment of surprise. The Germans would be dumbfounded to find large numbers of enemy troops both in front of and behind them. But surely the Germans would have been aware of the massive training program underway and known of the proposed airdrop. Strategic surprise may not have been possible, but the exact time and place of such an operation could perhaps have been kept secret.

It will never be known if these challenges could have been overcome by the spring of 1919, as Mitchell believed. But his vision certainly did not die. He continued to allude to airborne operations in his writing and speeches thereafter.

In a tactical manual written in 1922, Mitchell expounded on his original idea: "Daring attempts should be made to drop personnel by parachute during dark nights to actually set fire to [supply] dumps." He maintained that these troops could then be resupplied by air, stating that one bombardment group could transport more than 50 tons of supplies in one mission; he suggested these supplies also be dropped by parachute, to eliminate the need for nearby airfields. The Ordnance Department was already working on this issue, and he expected "far superior methods will be devised soon" to airdrop such essentials. (In 1928, emergency supplies were parachuted by Italian aircraft to the crew of a dirigible that went down at the North Pole.)

In his book, *Winged Defense*, Mitchell argued that paratroopers could be dropped to hold small pockets of resistance behind enemy lines. These units could then be supplied by air "with everything that is necessary." Perhaps reacting to emerging Marine Corps doctrine, he even proposed that paratroopers could be dropped on small islands in the Pacific to seize territory. These forces could also be resupplied by air or by submarine, he said.

After the war, the Air Service established an office at McCook Field in Ohio under Maj. E. L. Hoffman to study the matter of airborne operations. It was this office that developed the Type S parachute that became standard issue in both the Army and Navy in 1924.

In October 1929, the Air Corps parachuted a machine gun crew out of aircraft at Kelly Field in Texas. Within three minutes of hitting the ground the paratroopers had set up and were in firing position.

In 1932, Capt. George C. Kenney (later a general and commander of Far East Air Forces during World War II) would astound his superiors and observers by using a variation of Mitchell's idea: He air-landed an infantry unit behind "enemy lines" during Army maneuvers at Fort DuPont in Delaware. During World War II, the concept was further augmented by using gliders, towed over enemy territory, carrying infantrymen who would land and unload their troops and equipment.

The US Army and its Air Corps were not alone in such experimentation. Italy led the way by establishing small parachute teams by the late 1920s. Not far behind was Russia, which began serious development of large-scale paratroop units by the mid-1930s. Early 1932 saw the Red Army publish the first doctrine manual on the employment of airborne forces. The Germans followed around the same time, incorporating airborne regiments into the Luftwaffe as early as 1936. By the time war broke out in Europe in September 1939, nearly all the belligerents had formed airborne units.

After the German operation at Stavanger, Russia followed up two months

Left: Mitchell (seventh from left), with air service members from various European nations in Rome in 1922. Center: German paratroopers at Narvik, Norway, during the June 1940 occupation of the Scandinavian country. Above: British Handley Page bombers in World War I. Mitchell proposed using the light bombers to drop troops and machine guns behind enemy lines.

later by dropping troops in Bessarabia during its Romanian campaign. Such operations would continue throughout the war in all theaters.

German paratroopers were successful on Crete in May 1941, but suffered such high casualties that Hitler was loath to use them again afterward. The Allies had no such qualms, and airborne troops were an integral part of the Normandy invasion.

One of the most famous paratroop assaults carried out by the Allies during the war occurred in September 1944 when the First Allied Airborne Army—consisting of British and American paratroop divisions—was dropped into the Netherlands during Operation Market Garden. The operation wasn't a success, due not to the concept but to intelligence and leadership failures.

The commander of the First Allied Airborne Army for Market Garden was Lt. Gen. Lewis H. Brereton—the same man who had had plans "dumped" in his lap by Billy Mitchell in October 1918.

In his memoirs, Brereton recalled Mitchell's idea: "The armistice cut short General Mitchell's plans. Now, 26 years later, we had the same thing in mind."

As usual, Billy Mitchell was years ahead of his time. ■

Retired Col. Phillip S. Meilinger is a former USAF command pilot with a Ph.D. in military history. He is a frequent contributor to Air Force Magazine. His most recent book is Bomber: The Formation and Early Years of Strategic Air Command. His most recent article for Air Force Magazine, "Air Interdiction," appeared in February.



Before he served three tours in Vietnam, before he spent 11 months as a POW, Joseph Kittinger jumped from a balloon 19 miles above the Earth.

Kittinger

At about 7 a.m. local time on Aug. 16, 1960, Capt. Joe Kittinger sat in the open gondola of a helium balloon 19.5 miles above the New Mexico desert, looking at a vista only a handful of humans had ever seen.

It had taken Kittinger more than an hour to ascend to that point, rising at a rate of 1,200 feet a minute. He was higher than any balloonist had ever been. Ninety-nine percent of the Earth's atmosphere now lay below him.

To the west he could see a thunderhead boiling up over Flagstaff, Ariz., 350 miles away. To the east he could see as far as

Guadalupe Pass in Texas. Underneath were clouds and the familiar blue of the daylight sky. Above was the utter blackness of space.

Kittinger said it was like being in a painting. He described feeling as if he were a dot hanging inside a vast, fantastic panorama. For 11 minutes he took it in as his balloon drifted into position. Then, he settled himself and ran through his checklist, starting cameras and unplugging various monitoring systems. He informed his ground crew that a glove on his pressure suit had not been sealed properly and his right hand was twice the normal size.

He grabbed the side of the gondola opening with his good hand, inched his boots out over the threshold and said, "Lord, take care of me now." Then he jumped out.

Joseph William Kittinger II is one of the most daring and famous airmen of an era that stretched from the end of World War II to the end of the war in Vietnam.

Trained as a fighter pilot, the Florida native began his career based in West Germany, flying the last generation of prop-driven US pursuit warplanes. To this day the P-51 Mustang remains his favorite of the more than 90 different aircraft he's

Capt. Joseph Kittinger plummets toward Earth in a free fall at speeds of up to 614 mph during Project Excelsior.



USAF photos

Kittinger next to the Excelsior gondola. Lofted by a helium balloon, it carried him 102,800 feet above Earth. He set a world record for highest balloon ascent that stood until 2012, and a record for longest free fall that still stands.

before his final return, he was captured and spent 11 months as a POW in North Vietnam.

The accomplishment he remains proudest of, though, is his famous leap—a parachute plunge from 102,800 feet. At the time it was a harbinger of US space exploits to come, enough of an event that it earned him a turn on the “Ed Sullivan Show,” a spot on TV’s “What’s My Line?” and the cover of *Life* magazine.

The Problem Was Spins

The leap remained a world record for more than half a century, until 2012, when Austrian adventurer Felix Baumgartner broke it with the Red Bull Stratos sky diving project. Kittinger was the voice of mission control for the event.

“[In 1960] one of the objectives was to devise a means of escape from very high altitude,” explained Kittinger. “The drogue chute we used is still being used today; every ejection seat has it. That makes me and my team very proud because we made a contribution.”

The problem was spins. In the mid-1950s the Air Force was becoming concerned about pilots escaping at high altitude as jets flew higher and higher, while the possibility of manned spaceflight glimmered on the horizon. But altitude tests showed that dummies ejected from aircraft at great heights didn’t fall predictably. They tumbled—and eventually went into flat spins of 200 rpm or more. This was life-threatening and made it impossible to safely pop parachutes.

Deploying parachutes immediately upon ejection at very high altitudes was not a viable solution. A pilot would risk death from the chute’s opening shock or the lack of oxygen and great cold in the atmosphere’s upper reaches. Air Force researchers needed to figure out a way to get humans rapidly down to relative safety below 20,000 feet.

Project Excelsior was USAF’s answer to this dilemma. Set up in 1958, it was run by the Escape Section of the Aeromedical Laboratory at Wright-Patterson Air Force Base’s Air Development Center in Ohio. Its director was 30-year-old Capt. Joe Kittinger, handpicked by higher-ups for his personal experience with extreme-altitude flight.

In the mid-1950s, Kittinger had spent hours in a pressurized gondola at more than 90,000 feet as a chief test balloonist for Project Manhigh, an effort to see if humans could withstand the physical conditions of near-space. He’d earned a Distinguished Flying Cross for those exploits. Now he was going to ride an open, unpressurized gondola even higher and jump out to test unproven parachute designs.

“It was a rather hazardous event,” he observed. “I would never ask anybody else to do that. It was my project. I would never have risked anybody else’s life.”

Kittinger’s secret weapon was Francis Beaupre, a former Navy parachute rigger and civilian Wright-Patt engineer who devised a multistage parachute system intended to counter potentially fatal flat spins.

By Peter Grier

flown. “If I had to pick one airplane, that was the best. It was a beautiful combination of engine and airframe,” he said.

The job of test pilot, though, promised more excitement—and flying time—than postwar garrison duty in Europe. Kittinger ended up at Holloman Air Force Base in New Mexico, participating in space-related aviation research work. He flew chase airplanes that followed rocket sled runs on the ground. He transitioned to balloons, flying to record-setting heights to study the effects of altitude on the human body.

Later in his career he would serve three combat tours in Vietnam. Shot down days

In Beaupre's design, about 16 seconds after leaving the balloon platform, an 18-inch diameter pilot chute would pop out of a backpack. This would fill and in turn pull out a five-foot stabilization parachute. The five-foot chute would not slow a jumper much in the thin atmosphere, but it would stabilize him and provide for a feet-first descent. It also pulled out much of the main chute, which stayed closed due to a nylon web attaching it to the pack. At lower altitude, an automatic device would release the web and finally allow the main chute to open.

On Nov. 16, 1959, Kittinger rode a balloon up to 76,400 feet and leapt out to test Beaupre's system. Almost instantly, he was in deep, deep trouble. Heavily laden with equipment, struggling to pull out of his seat, he pulled the lanyard prematurely. The pilot chute came out at almost the moment of separation and wrapped around his body.

Kittinger began to spin to the left. He turned to the right and stopped the motion. Then, suddenly, he began another leftward spin, this time at a high rate of speed. He could not stop. He couldn't pull his arms in, due to centrifugal force. At about 120 rpm, he blacked out.

At only about 3,000 feet above ground, he came to, safely descending beneath a reserve parachute. He'd been saved by the cleverness of Beaupre's design, which included automatic tear-away lines for pilot chutes in case they fouled.

Given his near-death experience, Project Excelsior's official overseers weren't eager to approve another Kittinger jump. But he insisted that they'd shown that the basics

of the system worked, and eventually, he won another try.

Excelsior II took place from 74,700 feet on Dec. 11, 1959, and everything went perfectly. The drogue chute stabilized the spin, the main chute deployed as advertised, and Kittinger dropped to a landing in the New Mexico desert. He then set his sights on what he called the "big jump."

Kittinger had arbitrarily pegged 100,000-plus feet as his target altitude. He thought that was a nice round number, as much as an important scientific threshold. He knew that the environment at that height is much more hostile than it is at even 70,000 feet. It was like being "enveloped in cyanide," according to Kittinger's boss and mentor, Air Force medical pioneer Col. John Paul Stapp. If his suit failed, death would come within seconds.

Face Down

Yet he was not being a daredevil, Kittinger insisted. He rejects the notion of his ascent as death-defying. "I was an experienced fighter pilot," he said. "The work I did was just an extension of being a test pilot."

In any dangerous flight, you must have three things, said Kittinger: faith in your equipment, faith in your team, and faith in yourself. If you've got those, you'll be OK. "If any of those are missing, you're in trouble," he warned.

Kittinger had those faiths when he stepped into the open atmosphere higher than any man had gone before. Before liftoff, he'd noticed that a crew member

had attached a sign on the gondola, at the base of its opening, reading: "This Is The Highest Step In The World."

He fell with his face down, toward the clouds. But there was no sensation of movement. At that height there is no thick atmosphere to rush past your body and ripple your clothing.

"The way you detect speed is through visual acuity. There is nothing up there to focus on to show you how fast you're going," explained Kittinger.

He rolled over on his back and looked up at the balloon. That provided a visual reference, but a curious sensation. To him it appeared to be speeding upward, as if its restraining cord had been released.

Then, suddenly, Kittinger began to feel a choking sensation around his throat. It worsened rapidly. As he approached 70,000 feet on his altimeter he was fighting for breath and beginning to pass out.

Then, just as suddenly, the feeling went away. (Later, technicians would discover that a cable securing the helmet to the pressure suit was riding up and pushing the helmet against Kittinger's throat.)

Kittinger fell for four minutes and 36 seconds, unrestrained by anything but his small, stabilizing drogue chute. That remains the longest free fall experienced by humans. He reached a velocity of 614 mph. The coldest temperature he passed through was minus 94 degrees Fahrenheit.

His 28-foot main parachute finally opened when he reached 17,500 feet. The only glitch remaining was the unpresurized right glove that had caused his hand to swell to twice its normal size. He couldn't use it to release his instrumenta-



tion kit, as planned. The kit slammed into his leg on landing, bruising him. It was as hard a parachute landing as Kittinger had ever made.

He'd made it down alive, though. It was a world record and was such big news that Kittinger jumped into a T-33 at Holloman and flew straight to Los Angeles Airport, where he did a live remote with Walter Cronkite for the "CBS Evening News." Lots of media exposure followed, including an appearance on "The Ed Sullivan Show," the Sunday-night blockbuster that was that era's must-see TV.

In September, President Dwight D. Eisenhower personally presented Kittinger with the Harmon Trophy in a ceremony at the White House.

Kittinger remained involved with balloon-oriented experiments for the next three years. Among other things, he participated in Project Stargazer, floating an astronomer and telescope to the upper reaches of the atmosphere in an Air Force balloon.

The center of high-altitude research, however, was clearly shifting to NASA and the space program. In 1963 Kittinger jumped back into combat aircraft as a volunteer for the air commandos, based at Hurlburt Field near Fort Walton Beach, Fla. He was headed for Vietnam.

The air commandos flew B-26s (later designated A-26s) in counterinsurgency missions in the early years of the US involvement in Southeast Asia. Among other missions, they aimed to interdict freight traffic on the road coming through Laos from North Vietnam, popularly known as the Ho Chi Minh Trail. Kittinger pioneered the use of a new weapon in this effort when he began loading his bomb bay with beer bottle empties, dumping them out on the trail at low altitudes. No one knows how many North Vietnamese tires were cut up, but it definitely gave a boost to the morale of US airmen.

After two tours of duty, Kittinger returned to the US and transitioned to F-4s, one of the iconic fighter aircraft of the Vietnam era. He volunteered for a third tour and in 1971 returned to the Southeast Asia theater—this time as commander of the 555th Tactical Fighter Squadron, the famous "Triple Nickel." As commander,

Far left: Kittinger (second from left) on the flight line at Udorn AB, Thailand, during his third tour of duty in the Vietnam War. He was shot down, captured, and became a POW at the Hanoi Hilton. Left: Kittinger during T-38 orientation flights for repatriated POWs at Randolph AFB, Texas.

Joe Kittinger and the UFOs From Outer Space

Capt. Joseph W. Kittinger Jr.'s high-altitude balloon flights probably fueled false rumors that space aliens in unidentified flying objects crash-landed in the New Mexico desert in the late 1950s.

A 1997 Air Force report names a 1959 Kittinger mishap as a likely source for a wild tale: that the military once plucked extraterrestrial beings from the debris of a downed spaceship near Roswell, N.M.

At the time Kittinger was training two Air Force captains, Dan D. Fulgham and William C. Kaufman, as backup pilots for high-altitude balloon flights. After a few training spins out of Holloman AFB, N.M., Kittinger and his trainees lifted off at 2:41 a.m. on May 21, 1959, from behind Holloman's Balloon Branch building, Bldg. 850.

They had to climb quickly to surmount a 10,000-foot mountain range to the east. Once at altitude Kittinger informed Fulgham and Kaufman that he was going to take a nap.

"I'd been busy on another project and hadn't had much sleep, so I really needed to catch a few winks," writes Kittinger in his autobiography, *Come Up and Get Me*.

He told them to maintain altitude and wake him if any problems developed. The next thing he knew, he was swimming back into consciousness with the sun shining from the sky. He looked at the altimeter and saw they were only about 500 feet up.

"We cleared the mountains and we didn't want to wake you," said Kaufman. "We just brought her down gradually."

Kittinger had wanted to pick a good spot from up high and basically go straight down. Now they were stuck in a bad position, with wind whipping up ahead and no height to overcome it. They were traveling at a horizontal speed of about 20 mph when they hit the ground, near the small town of Roswell.

The gondola flipped over with the impact. It came to rest upside down, with its lip resting on Fulgham's head. Fortunately, he was wearing a helmet.

But Kittinger saw that the impact appeared to have ruptured blood vessels in Fulgham's scalp. They all piled into a chase helicopter and made for a hospital at Walker Air Force Base, three miles south of Roswell.

At the hospital, security officials were understandably nervous about the sudden appearance of a strangely injured pilot from a flight they did not know was taking place. Thus, they accompanied Kittinger and his crew into the building—perhaps feeding rumors of extra security for a "secret" mishap. Furthermore, Fulgham's swelling scalp resembled the "classic science fiction alien head," according to the 1997 Air Force study, "The Roswell Report: Case Closed."

Plus, Kittinger wanted to get out of the hospital quickly. The Aero Medical Laboratory was trying to keep its balloon experiments as quiet as possible, so when Fulgham was patched up they left by helicopter.

According to the Air Force's Roswell report, this meshed with subsequent rumors of a redheaded officer (Kittinger) allegedly telling medical staff to keep as quiet as possible about the incident.

"UFO theorists contend that the US Army Air Forces secretly shipped the alien bodies with large heads to Wright-Patterson AFB [Ohio] for further processing and deep-freeze storage," concluded the report. "However, it is likely that, in this account, this is a reference to Fulgham's return to Wright-Patterson AFB following the balloon mishap."

Kittinger himself has noted that many people desperately want to believe in aliens and that his own past has thus become part of their fantasies.

"The whole incident became part of the ongoing Roswell legend," he wrote.

The Air Force's Roswell Report can be found in its entirety at: <http://www.dtic.mil/dtic/tr/fulltext/u2/a326147.pdf>. For more on the Air Force's role in UFO theories, see: <http://www.airforcemag.com/MagazineArchive/Documents/2011/June%202011/0611UFO.pdf>.

he flew as many different types of missions as possible and shot down a MiG in March 1972.

Then on May 11, just days before he was scheduled to rotate home, then-Lieutenant Colonel Kittinger and his weapon systems officer, 1st Lt. William J. Reich, were themselves shot down by a MiG that snuck up from below as they tracked another target deep inside North Vietnam. Captured after his ejection, Kittinger soon found himself in the in-

famous "Hanoi Hilton," where by virtue of his rank he became the leader of the relatively new prisoners, kept in a group separate from the long-timers.

Like many POWs, Kittinger suffered the infamous "rope torture," where the North Vietnamese hoisted a prisoner up by his arms, which were bound and twisted behind his back. The point was to humiliate a prisoner and break his will, rather than to be an effective way to obtain information.



Photos via JoeKittinger.com

Above: Kittinger in the cockpit of his F-4 at Udorn Air Base. Above right: President Dwight Eisenhower (left) and Kittinger at the White House in 1960, where Kittinger received the Harmon Trophy, an annual award for the world's most meritorious flight.

Kittinger and his fellow POWs continued to try and defy their captors in any way they could, holding church services, for instance, as well as forbidden exercise sessions. Kittinger became renowned for his ability to use overturned washtubs to capture the giant rats overrunning the prison compound.

"We never doubted we would get released," said Kittinger. "It made us better Americans, to appreciate what we had. Being a POW was life-changing."

The Paris Peace Accords ending direct US involvement in the war and providing for the release of the POWs were signed on Jan. 27, 1973. Colonel Kittinger—he, like many other prisoners, had been promoted during his internment—finally flew out of North Vietnam on a US C-141 on March 29, 1973. The second the wheels lifted off, the airplane exploded in cheers.

On May 24, President Nixon hosted the POWs and their wives at the White House for a gala event. It remains the largest formal dinner ever held at the Executive Mansion.

"That was one of the greatest parties I have ever been to," recalled Kittinger.

At one point, he found himself in the Lincoln Bedroom, listening as Nixon described the room's significance. Then National Security Advisor Henry A. Kissinger walked in the room, and the President

of the US turned and said, "Dr. Kissinger, I want you to meet Joe Kittinger."

Kittinger thanked Kissinger for helping negotiate their release. Kissinger told Kittinger he was sorry it hadn't come sooner.

Around 2 a.m., Kittinger found himself in a group drinking bourbon with John Wayne. One ex-POW told the actor that when he was being tortured he had kept his head by asking himself what the "Duke" would do under those circumstances.

"That's the greatest compliment I've ever had," said Wayne.

Helping Break His Own Record

As a former POW, Kittinger was allowed to essentially choose his next Air Force assignment. He picked a stint at the Air War College at Maxwell AFB, Ala., later calling it a "year of fun." In 1974, he was named vice wing commander of the 48th Tactical Fighter Wing, an F-4 unit based at RAF Lakenheath in England. After three years in the UK he transferred to 12th Air Force at Bergstrom Air Force Base in Austin, Texas. In 1978, Kittinger chose to retire from Active Duty military service.

"I had 29 great years in the Air Force. I loved the flying, I loved the experience, I loved the companionship. I loved the Air Force team," he said.

Retirement didn't stop his balloon exploits, however. In 1984, he fulfilled a long-standing dream by launching from Caribou, Maine, and traveling eastward more than 3,500 miles before crash-

landing in northern Italy. The impact broke his foot but he'd set a record for both time and distance in solo balloon flights. He was the first person to balloon alone across the Atlantic.

Over the years, he turned down many requests for help from people who wanted to break his high-diving parachute record. Most were ill-prepared and underfinanced, he said, and he had no desire to get involved in potentially fatal disasters.

The Red Bull Stratos effort was different. He agreed to join the team in 2008 to help Baumgartner set new altitude records. In the end, Kittinger became something of a calming influence on the younger man. He served as the ground control communicator during the successful 2012 attempt, talking Baumgartner through his paces prior to his leap from a height of almost 24 miles.

Baumgartner may have fallen farther, but he did not fall longer—his parachute deployed a few seconds short of breaking Kittinger's free fall time. That's a world record Kittinger still holds.

Today, Kittinger is still ballooning, still flying, and raising money for an F-4 static display at the Kittinger F-4 Park adjacent to the Orlando Executive Airport in Florida. To him the Phantom remains a symbol of the Vietnam era, as it does for many old enough to remember the conflict.

"We're going to put it on a pedestal and dedicate it to the memory of central Florida's Vietnam veterans," he said. ■

Peter Grier, a Washington, D.C., editor for the Christian Science Monitor, is a longtime contributor to Air Force Magazine. His most recent article, "Swimming in Science," appeared in June.



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The Joint Chiefs had a bold plan for airpower, but political leaders chose gradualism instead.



The Vietnam War That Wasn't

By Jack Broughton

As the US first became involved in direct combat with North Vietnam, America's airpower resources were used sparingly, spastically, and less than efficiently. Many observers pronounced the mere threat of US airpower might bring the North to its knees. That did not happen. America's formidable and available airpower arsenal was only tentatively committed and was shackled by gradualism and micromanagement from the highest levels of government.

Because of this, the scene was set for a string of reports on airpower's ineffectiveness, that it was failing to "win" the war. Many historians still cling to this view.

But a good number of those who fired shots, and got shot at, believe to this day that had US military capabilities been better utilized, the outcome of the war in Vietnam would have been dramatically altered.

As early as 1962, Vietnam scholars such as Bernard B. Fall, arguably the most prominent war correspondent, historian, political scientist, and expert on Indochina during the 1950s and 1960s, spoke of the North's fear that American retaliation to military action by Hanoi would destroy their emerging economy and lead to post-war Chinese occupation. Ho Chi Minh had cleverly extracted a great deal of assistance from both the Soviet Union and China, resulting in an industrial complex that was the only real economic entity in Southeast Asia at the time.

In less than 40 years, Ho and his followers had gained the freedom from China that had eluded their ancestors for the preceding two thousand years. The leadership and the people of North Vietnam were fanatically proud of this accomplishment.

Ho himself had spent enough time in Korea to know what air strikes had done, and he was hesitant to trade the glory of conquering the South for sacrificing his national pride and economic potential to American bombs. The fact that the leadership in Hanoi was smart enough to fear a determined assault by US airpower was lost on American leadership. The US leadership also ignored the historical advice of theorist Carl Von Clausewitz, who professed that if you have to go to war, victory is all that counts, and using the maximum amount of force as quickly as possible is the preferred path to victory.

Washington also paid little attention when Fall, from his on-scene combat perspective, predicted that both France and the US would suffer defeat because

A post-strike photo showing a target in North Vietnam destroyed with no collateral damage.

of their tactics and lack of understanding of Vietnamese society.

In 1964 the Joint Chiefs of Staff directed the development of a list of strategic targets in North Vietnam. The 94 targets they identified were considered to have a direct relationship to the North's war-making capabilities and will to fight. Additionally, Air Staff planners had designed an air campaign that Air Force Chief of Staff Gen. John P. McConnell considered capable of knocking out those 94 targets in 28 days.

By all accounts, American airpower was capable of immediately implementing the plans. There was a fully combat ready F-105 fighter-bomber wing at Yokota AB, Japan, and another at Okinawa, prepared to deploy to operating bases at Takhli and Korat in Thailand. Tactical Air Command fighter squadrons were routinely accomplishing trans-Pacific flights for temporary duty deployments to Southeast Asia. B-52 bombers were in position to engage, and aerial refueling tankers were prepared to operate out of Bangkok. Naval carrier air wings were on, or en route to, "Yankee Station"—their operating position in the South China Sea, well within range of Hanoi and Haiphong.

STRATEGY FOR DEFEAT

The White House announced to the world in August 1964 that the US would strike firmly if the North or their allied Viet Cong units chose to attack any US facilities in South Vietnam.

The reply came with a mortar attack on the US air base at Bien Hoa, South Vietnam in November, killing and wounding Americans, and destroying aircraft just 20 miles north of Saigon.

In the aftermath of the attack, the Johnson Administration professed concern over Chinese reaction should America do what it had said it would do. The President, ignoring the JCS and US Ambassador to South Vietnam Maxwell D. Taylor, decided to take no retaliatory action.

In his book *Strategy for Defeat*, Adm. Ulysses S. Grant Sharp Jr., commander of US Pacific Command from 1964 to 1968, said that the President should have initiated the JCS plan. Sharp stated air attacks "would have had a major effect on North Vietnam and might well have been the very thing needed to stop North Vietnamese aggression in the south and to bring Southeast Asia back to a peaceful, stabilized situation." Some 11 years before the war's end, he argued, the US may well have prevented the costly and drawn-out war that followed.

Instead, Operation Rolling Thunder was designed to be the effective air campaign against the North, but was constantly hobbled by President Johnson's frequent invocation of the "China Card"—a pronounced fear of a large-scale Chinese intervention in Vietnam, much like in the Korean War. But this fear ignored the historic enmity between the Chinese and Vietnamese, and the frequent analogy with the Korean War was seriously flawed.

In the fall of 1950, US forces had pushed invading North Korean forces back over the 38th Parallel and had advanced to the banks of the Yalu River, the border with China.

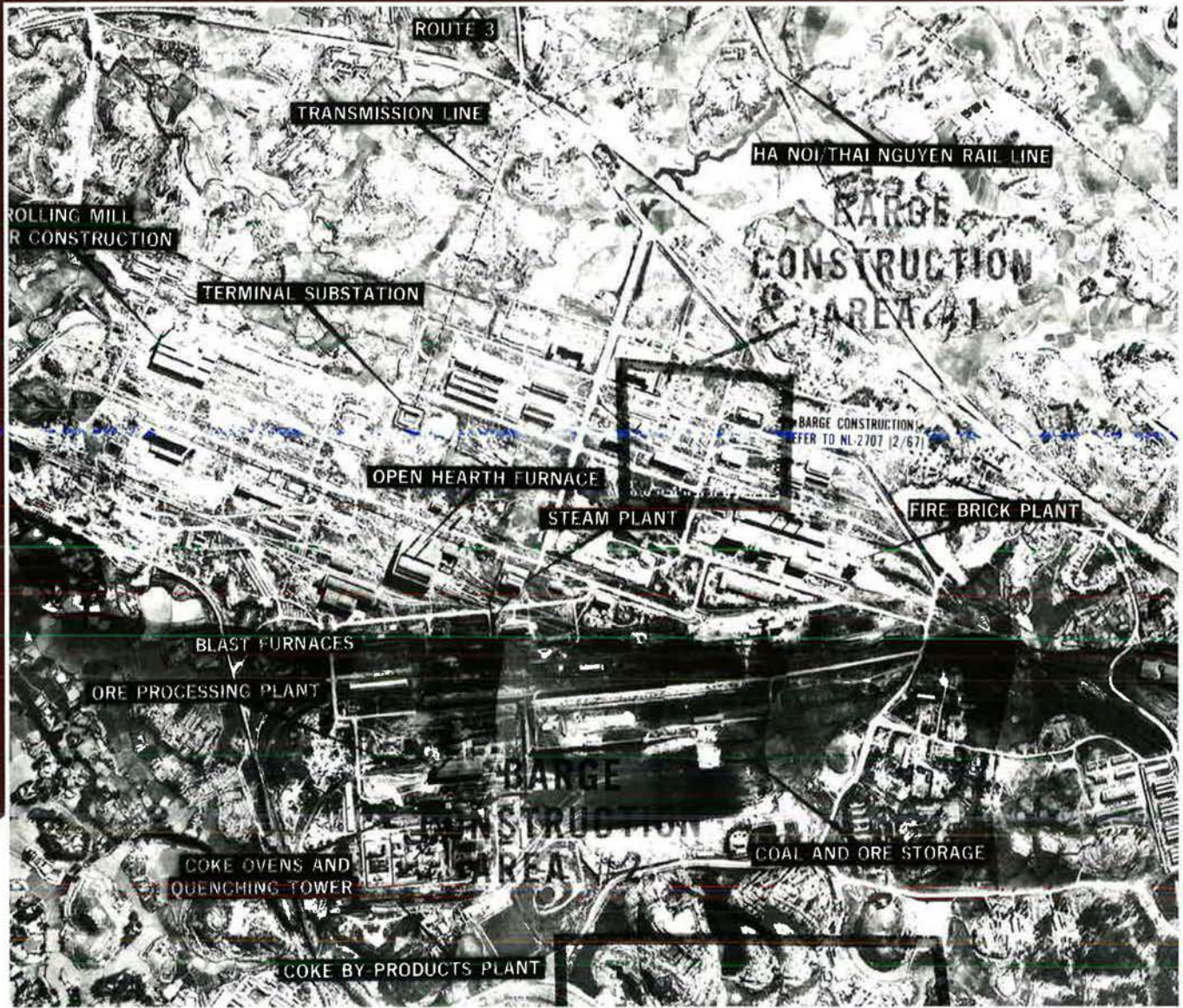
Gen. Douglas MacArthur was threatening to enter China, so the Chinese responded by simply marching their assembled forces across the border into the Korean War.

In Vietnam, US ground units were never closer than 400 miles from the Chinese border and never threatened to enter North Vietnam—much less China. Had Chinese ground forces chosen to enter the ground war in South Vietnam, such action would not only have widened the war substantially, but the Chinese would have faced US airpower that would have forced their forces to pay dearly en route to South Vietnam. Also, as the Cultural Revolution began in 1965-66, the Chinese were too bound up with their own internal difficulties to respond militarily except to a direct threat to their national security interests. China was under additional stress due to the worsening diplomatic friction in the 1960s between China and Russia.

Johnson and Secretary of Defense Robert S. McNamara used the China Card to justify their preferred gradualist approach. They advocated short periods of limited air strikes followed by a unilateral cease-fire declaration, to allow the North to assess the situation and in theory beg the US for peace talks.

The North took advantage of this approach and used the cease-fires to repair strike damage, improve and practice tactics, perfect their communications, further disperse MiGs and associated fuel and munitions, build new surface-to-air missile sites, and strengthen readiness for the next push southward. Rolling Thunder, as it unfolded, struggled for effectiveness.

North Vietnamese ground forces, empowered from ending French colonial rule at the battle of Dien Bien Phu, were certainly a dominating force in the war against South Vietnam, but were not a large factor in the JCS plan for aerial action against the North. The North's anti-aircraft capability at the initiation of hostilities was minimal and in no way resembled the fiercest air defenses



in history that materialized later in the war—after a massive Russian and Chinese infusion of equipment, communications, training, and technical assistance.

At the beginning of the air war, there were no SAMs to contend with, the North Vietnamese MiG interceptor aircraft program was practically non-existent, and anti-aircraft guns were mostly limited to what was left over from the French defeat at Dien Bien Phu.

There was a high probability that aggressive US Air Force and US Navy aviation air attacks could have changed the calculations in Southeast Asia.

Initially USAF and Navy fighters could have disabled all of the North's communication and warning facilities, plus anti-aircraft gun positions. Fighters could then have destroyed the wide open, easily identified fuel tank farms in and around Hanoi and Haiphong, before the North began dispersing fuel in barrels into the villages of the countryside. Those

same fighters could also have crippled the docking and storage facilities of Haiphong harbor, without damaging international shipping vessels. Adequate warnings to the nations sponsoring the shipping, plus the strategic sowing of mines by B-52s in the waters surrounding Haiphong, would certainly have hindered ship traffic bound for the North.

The next step in the North's isolation could have been the crippling of the main source of supply input from China, the northeast rail line that ran from the Chinese border to downtown Hanoi. This was a 140-mile, single railroad track, allowing only one-way traffic. One end of the line was supply and transshipment facilities on the Vietnamese-Chinese border, while the other end was the one and only roundhouse in Hanoi.

Fighters could have disposed of the near-border supply facilities without violating the Chinese border. B-52 bomber crews were ultimately capable of eliminating

An aerial photograph of Thai Nguyen shows an unprotected cluster of industrial targets.

Hanoi's roundhouse and disabling the nearby Gia Lam airfield. Supply inroads to the North would have been virtually nonexistent.

An ideal strategic mission awaited B-52 bombers, at the Thai Nguyen steel mill complex, 50 miles north of Hanoi. It was a large, modern, self-contained industrial complex. If there was a single, meaningful symbol of the North's industrial sophistication, Thai Nguyen was it. It was bordered on the north by the relatively accessible Highway 3 and the Hanoi/Thai Nguyen rail line and on the south by extensive coke ovens and coal and ore storage facilities. Its inner area contained blast furnaces, iron and steel works, a thermal power plant, an open hearth furnace and steam plant, a major four-track rail choke point, a brick plant, barge construction and as-

sembly units, and multiple logistics and administration buildings. It was a prime strategic target—and initially lacked MiG and SAM protection.

Farther west, at the junction of the Red and Black rivers, was the Viet Tri thermal power plant and rail marshalling facility. Between them was a large, grey, four-story building that prior to the war was a chemical plant. At the opening of hostilities it was decorated with a large white circle centered with a red cross and immediately designated as a hospital. Intense 37 and 57 mm gunfire from the rooftop and smaller arms fire from all the windows greeted aircraft approaching the hospital. A B-52 mission and a few fighter strikes could have removed Viet Tri from the target list. Another target for initial action would have been any one of a number of irrigation dike systems that were the main feature of the Red River Delta. Rupturing even a small segment would have issued notice to the majority of the North's population that the US had the capability of quickly depleting their main food staple: rice.

Though the major Soviet deliveries of MiG fighters were yet to come, a few bomber trips to the airfields at Phuc Yen and Kep would have been appropriate. SAM sites were also a thing of the future, but as they arrived, the earth-moving, grad-

ing, installation, and calibration activity, accomplished by Russian crews, was a very conspicuous series of events. Fighter flights could have destroyed the sites and their protecting anti-aircraft weaponry while under construction.

CONVINCING EVIDENCE

Though the JCS and Sharp had identified 94 significant targets, proper airpower action could have quickly changed the direction of the war even if only a fraction of the targets were destroyed. Airpower could have convinced the North that US military forces were indeed determined to decimate the economic and national progress Ho held dear.

In evaluating what could have been done, accuracy of the strikes and collateral damage were always under scrutiny. For pilots, postmission evaluation of strike photos was adequate for mission assurance, but outsiders needed more convincing.

It would be difficult to find more accurate evidence than on-scene comments from a qualified observer, and John Colvin, British consul in Hanoi, provided such a critique excerpted in the book *Vietnam Voices*, by John Clark Pratt.

Colvin recounted that he and his vice consul walked to their balcony as the air raid sirens sounded in May 1967, and “as

we stood there, seven or eight United States F-105 Thunderchief fighter-bombers, flying at scarcely more than rooftop height and no more, it seemed, than 100 yards away, shot across our vision ... [at] enormous speed. They had come on us suddenly out of nowhere, the hard, gray, sleek aircraft, in superb formation at approximately 600 mph, disappearing for an instant behind the trees and buildings that lay between us and the power station (thermal power plant), ... then quickly climbing clear and away.... Almost simultaneously, such lights as were on in the apartment went out, the fan stopped turning, and a column of dust, smoke, and flame rose from the direction of the power station. ... The performance of this squadron disposed of every communist or other illusion about the laxity of American bombing or the imprecision of US bombing techniques. ... There was, in our opinion, no hope at all for [the power plant].”

Colvin noted that of the complex of 50 houses around the plant only three had been damaged—and by blast rather than bomb hits.

US combat aviators of all services involved in the Vietnam War were well-

This photo shows the Thai Nguyen steel plant under attack in 1967.



USAF photo



trained, experienced, and highly dedicated. The majority of USAF pilots ranged in rank from seasoned captains to full colonels, with new lieutenants a rarity. Navy and Marine units were similarly manned. A good percentage of these pilots had seen combat before, and actively employed units had seasoned combat veteran commanders. Proper utilization of available airpower and personnel could have, in a matter of weeks, eliminated a high enough percentage of those 94 targets to alter the entire war.

But the basics of the JCS plan were ignored. Bombers were not committed against strategic targets, but were relegated to bombing runs over jungles down south. Fighters were used in a restricted and wasteful manner against strategic targets up north.

Tactical commanders, up to the general officer level, were forbidden from exercising target selection and mission control, nor could they specify attack techniques. Instead, power over the air war was confined to detailed decrees from the Washington, D.C.-based "Tuesday Lunch Bunch," as described by Sharp in his book.

"The final decision on what targets were to be authorized, the number of sorties allowed, and in many instances even the tactics to be used by our pilots, was made at a Tuesday luncheon in the White House attended by the President, the Secretary of State, the Secretary of Defense, Presidential Assistant Walt Rostow, and

the presidential press secretary. ... The significant point is that no professional military man, not even the Chairman of the JCS, was present at these luncheons until late in 1967," he wrote.

If the USAF penchant for seeking knowledge by way of analysis of lessons learned is valid, then it is appropriate to theorize as to what would have happened if airpower had been used effectively at the start of the Vietnam War. Colvin's recounting from central Hanoi was a persuasive tale, and his on-scene comments define the conditions that existed even as Rolling Thunder was strangled by gradualism.

In his report, Colvin observed the evidence of malnutrition was clear among adults and children in the capital area, as food was not coming in from China. "For three days there was no water supply" due to failed electrical pumps, he wrote, and already unsanitary conditions were growing worse. The economy of the North was at last "breaking down," and for the first time "no amount of excited exhortation could correct" the conditions. Since Colvin had arrived in Hanoi in 1966, the streets had been lined with war materiel delivered from China, but by August and September 1967 there was little left. "The trains were com-

Left: Army Gen. Creighton Abrams, Secretary of Defense Robert McNamara, Chief of Naval Operations Adm. David McDonald, and USAF Lt. Gen. David Burchinal (l-r) discuss war plans in 1966. McNamara and President Johnson rejected the Joint Chiefs of Staff's recommendations in favor of "gradualism." Above: Adm. Ulysses Sharp, chief of US Pacific Command from 1964 to 1968, believed the JCS plan could have averted the long and costly war.

ing no longer," he wrote. "The country's endurance had reached its limits."

A determined air assault would not have immediately defeated the North's ground army, but Ho would still have been forced to consider two premier rules of communist ideology: one, that half a loaf is better than none, while the second affirms that time is on our side.

Ho could well have selected alternate options to protect his country.

Finally, proper utilization of US airpower could have achieved an even more important goal: With a strong display of airpower at the beginning of the conflict, the US could have saved many of the 58,000 American lives that were later lost. ■

Jack Broughton is a retired USAF colonel and fighter pilot. During his time on Active Duty he was the recipient of four Distinguished Flying Crosses, two Silver Stars, and the Air Force Cross. He is the author of two memoirs from the Vietnam War era, Thud Ridge and Going Downtown. This article is adapted from his 2007 book Rupert Red Two. His most recent article for Air Force Magazine, "The Heart of the North," appeared in the April issue.



2014-15

AFA Nominees



Van Cleef



Vernamonti



Dietsch



Horlen



White

The Air Force Association Nominating Committee met on May 10 and selected candidates to send forward for five national officer positions and three elective National Director positions on the Board of Directors. The committee comprises three most recent past Chairmen of the Board, one person selected by each of the two Vice Chairmen of the Board, two persons representing each geographic area, and one person each representing the Total Air Force, Air Force veterans, and aerospace industry constituencies. The slate of candidates will be presented to the delegates at the AFA National Convention in National Harbor, Md., in September.

Chairman of the Board

Scott P. Van Cleef, Fincastle, Va., nominated for first one-year term. He is a Life Member and is AFA Vice Chairman of the Board for Field Operations. He served as the Central East Region President before assuming his current duties. While President of Virginia's Roanoke Chapter, it was named AFA Medium-size Chapter of the Year for 2005. He was the State President when Virginia was named the Outstanding State Organization of the Year for 2008. He was a member of the AFA Board of Directors, 2008 to 2011. He served on the afa21 Internal Review Group in 2005 and the afa21 Field Structure Team in 2006. He was also a member of the Field Council and Strategic Planning Committee, which he chaired for two years. Van Cleef was Virginia's Member of the Year in 2004 and 2010 and recipient of the Central East Region President's Award, AFA's Medal of Merit, Exceptional Service Award, and Chairman's Citation. Van Cleef served for more than 29 years in USAF. He

commanded an F-16 squadron, was Vice Commander of an F-16 training wing, and Commander of a fighter wing. He is a self-employed maker of fine furniture, a chapter officer in MOAA, and a Civil Air Patrol senior member. He serves on the Board of Directors for the Virginia Museum of Transportation and on the Board of Visitors for the Virginia Women's Institute for Leadership at Mary Baldwin College. He earned a bachelor's degree in business economics from Purdue University and a master's degree in political science from Auburn University.

Leonard R. Vernamonti, Clinton, Miss., nominated for first one-year term. A Life Member since 1984, he serves as the National Treasurer. He formerly served as a State and Region President, a National Director, and Chairman of the Audit Committee. He now chairs the Finance and Presidential Evaluation and Compensation Committees. He led major process reengineering that dramatically improved AFA's financial visibility and viability, and the change from a defined benefit to a defined contribution retirement system for the AFA professional staff. He corrected a 60-year practice in the retirement program that needlessly cost AFA over \$10 million. He is the Financial Trustee for the Arnold Air Society and Silver Wings. He is a Senior Advisor, Government Relations, for the Associated General Contractors of America. While serving in the Executive Office of the President of the United States, he was the architect of the President's Policy Management System. As Director for the National AeroSpace Plane Program, he achieved congressional approval of the largest applied research program in Air Force history. In his last USAF

assignment, he obtained the production decision for a \$22 billion international communications system. He served as President-CEO of a high-tech non-profit, leading it from near bankruptcy to more than \$12 million in cash assets. Vernamonti has a B.S. in economics from the Air Force Academy and an M.S. in systems engineering from the University of Florida. He has received the AFA Exceptional Service Award and two Medals of Merit.

Vice Chairman, Field Operations

David A. Dietsch, Arlington, Tex., nominated for first one-year term. He is National Director, Central Area; a Chairman's appointee to the Executive Committee; and AFA Texas Vice President for Industrial Relations and Government Relations. A Life Member active in AFA since 1992, he has served as Executive Vice President of the Lubbock Chapter, President of the Fort Worth Chapter, Texas State President, and Texoma Region President. He co-founded and became the first Board Chairman for the AFA Texas Aerospace Education Foundation. Dietsch has served at the national level on the Constitution, Membership, and the Nominating Committees and on the Field Council. He has been AFA Texas Member of the Year twice and received the AFA Texas Claire Chennault Patriotism Award. He also received the AFA Medal of Merit and three AFA Exceptional Service Awards. Dietsch served for 27 years in USAF in aircraft maintenance and logistics. Afterward, he managed the aircraft maintenance contract workforce at two flying training wings. He has a bachelor's degree in American diplomacy and foreign affairs from Miami University in Ohio and a master's

degree in public administration from Golden Gate University. He serves on the local Salvation Army Management Committee and is a consultant.

Buster Horlen, San Antonio, nominated for first one-year term. Horlen joined AFA in 1976 and became a Life Member in 1985. He has served AFA as a National Director and chaired the Development Committee. He has served as a member of that committee for the last six years. He was President of the Alamo Chapter from 1992 to 1994 and served as Texoma Region President. He was named the AFA Texas Civilian of the Year by AFA Texas. He received a bachelor's degree in business administration from Texas A&M Kingsville and a master's degree in management from Webster University. He entered the service in 1968 and served 34.5 years in the Texas Army National Guard, Texas Air National Guard, and the Air Force Reserve. His last duty assignment was the individual mobilization augmentee to the Vice Commander of the 37th Training Wing, Lackland AFB, Texas, from 1998 to 2005.

Vice Chairman, Aerospace Education

Jerry E. White, Colorado Springs, Colo., nominated for a third one-year term. Vice Chairman of the Board for Aerospace Education, he is a Life Member. He served on the Aerospace Education Foundation and AFA boards and was active in combining the two organizations. He has chaired the Aerospace Education Council for the past two years and was Chair and Co-Chair of the Development Committee. He was appointed to the AFA Executive Committee. White served for 37 years, Active and Reserve, in USAF, retiring as a major general after a career in space and development. He co-authored the Air Force Academy's primary text on astrodynamics. A former faculty member, he remains engaged with the academy and technical education. White was CEO and Board Chairman of a 4,500-employee nonprofit for 18 years, and he was Chairman of an association of several hundred nonprofits. He was on the congressionally mandated Reserve Forces Policy Board. He holds degrees from the University of Washington and AFIT and a Ph.D. from Purdue University. White is President Emeritus and Chairman Emeritus of an interdenominational Christian ministry.



Tooman

Secretary

Marvin L. Tooman, West Des Moines, Iowa, nominated for a second one-year term. He has been a member of AFA since 1991 and is a Life Member. As an undergraduate, he was an Arnold Air Society member. He has served as Gen. Charles A. Horner Chapter President, Iowa State President, and Midwest Region President. Nationally, he served on the Aerospace Education and Field Councils and Membership Committee. Tooman received AFA's Medal of Merit, Exceptional Service Award, and Midwest Member of the Year 2004 award. Tooman has served as President and CEO of a regional health care corporation providing rehabilitation services. He then became Chief Regulator for Iowa's health care providers. He volunteered as Secretary and then President of the National Association of Health Facility Survey Agencies. Tooman served for five years on Active Duty as an Electronic Combat Countermeasures Officer on a B-52. He served for 22 years in the 132nd Fighter Wing, Iowa Air National Guard. He graduated from Central Michigan University and Drake University and holds an educational doctorate in administration.

Treasurer

William R. Grider, Indianapolis, Ind., nominated for a first one-year term. Grider is a National Director. He serves on the Development Committee and has served on the Field Council and Strategic Planning and Nominating Committees. Grider has been an AFA member since 1994 and a Community Partner for most of that time. He is a Life Member and Wings and Thunderbird Society member. He served as Grissom Memorial Chapter President, 2000-02, and has held that position for the past four years. He served as Indiana State President, 2002-04, and again from 2009 to 2010. He has also served as the Great Lakes Region President. Grider is an AFA Airpower Advocate and has given presentations throughout the Midwest.



Grider



Ruebrook

He has practiced general dentistry for 32 years and is Owner and President of two dental practices, the net result from eight acquisitions. Grider was honored as a Fellow, International College of Dentists, in 1998. He received his bachelor's degree and D.D.S. from Indiana University. He has served on numerous aviation, civic, and dental nonprofit boards, as well as in several officer positions.

Nora Ruebrook, Honolulu, is nominated for a first one-year term. She is an AFA Life Member and serves as National Director, West Area, and Chairwoman of the National Audit Committee. She has received the AFA Medal of Merit and the Exceptional Service Award. Ruebrook has served on the AFA Finance, Strategic, and ad hoc Congressional Committees; was VP, Far West Region for Leadership Development; was AFA Hawaii President; and is an AFA National Mentor. Ruebrook is a member of the Thunderbird Society, Legacy Society, and Gold Wings. She serves on international and national boards, including that of the Navy League of the United States as National Vice President, and is a National Contracting Management Association Fellow. She has been involved with governance of numerous organizations, such as the American Society of Military Comptrollers. Ruebrook is the CEO-Director of a company supporting the ISR and R&D communities. Her industry client list includes Fortune 500 companies. Ruebrook is Honorary Commander of the 692nd ISR Group.

National Director at Large

The Nominating Committee submits three names for National Director at Large. Two will be elected for a three-year term.

Robert J. Elder Jr., Shreveport, La. He has been a Life Member since 1976. Since retiring as a lieutenant general commanding 8th Air Force, Elder has been active with AFA's Airpower Ad-



Elder



North



Owsley



Greenawalt



Jackson



Yucuis

vocates Group and Airpower Working Group. He was the Commandant of the Air War College, Air Operations Center Commander, Deputy Air Component Commander for operations in Iraq and Afghanistan, and the first commander of Air Force Network Operations. He is past President of the Association of Old Crows electronic warfare organization and is a National Association of Corporate Directors Governance Fellow. He holds a doctorate in engineering from the University of Detroit and is currently a Research Professor at George Mason University's School of Engineering, researching command and control, strategic deterrence, cyber risk management, and national security decision-making.

Gary L. North, Fort Worth, Texas. He has been a Life Member since 1989. North entered the Air Force in September 1976 and retired as a four-star general after 36 years of service. His leadership positions in USAF included Commander, Pacific Air Forces, and from 2006 to 2009 he served as the Commander of US Air Forces Central. He also served as the US Pacific Command Director of Operations. He works for an aerospace corporation as Vice President for Customer Requirements. He received a bachelor's degree in political science from East Carolina University and a master's degree in public administration and human resource management from Golden University, as well as a master's degree in National Resource Strategy from the Industrial College of the Armed Forces.

Kent D. Owsley, Dayton, Ohio. He joined AFA in 1998 and is a Life Member. He has been Great Lakes Region President since 2012. He has held numerous field positions, starting as Community Partners

VP for the Wright Memorial Chapter, and several other appointed and elected offices in the chapter. Owsley served as Chapter President from 2007 to 2009 and as Ohio State President from 2009 to 2012. He is a member of the Field Council and the Finance Committee; previously, he served on the Audit Committee. His AFA awards include the Medal of Merit and the Exceptional Service Award. He was named the Ohio AFA Member of the Year. Owsley is the Business Development Manager for a technology company. He received a bachelor's degree in communication studies from University of Iowa and has attended the Defense Systems Management College at Fort Belvoir, Va.

National Director

The Nominating Committee submits three names for National Director, East Area.

Rodgers K. Greenawalt, Sumter, S.C. Greenawalt has been a Life Member since 1994. He serves as AFA South Carolina Secretary. He has been South Carolina State President and the Southeast Region President. He has served on AFA's Constitution Committee and the Field Council. His AFA awards include the Medal of Merit, Exceptional Service Award, and President's Citation. He was also named the South Carolina Member of the Year. Greenawalt spent 24 years on Active Duty and has been a tactical reconnaissance pilot, an AFJROTC Senior Instructor, and Director of Marketing and Recruiting for the Air Force Academy. He received a bachelor's degree in education from the University of Maryland and a master's degree in counseling from Pepperdine University.

Kevin L. Jackson, Washington, D.C. Jackson has been a member of AFA since 1994 and is a Life Member. He has served as VP of the Donald W. Steele Sr. Memorial Chapter and is the past President of the Nation's Capitol Chapter. His AFA awards include the Medal of Merit and two Exceptional Service awards. Jackson has served on the AFA Nominating Committee and currently serves on the AFA Audit and Membership Committees. Jackson is the Vice President of Sales and Marketing Air Domain for an international defense and security corporation. He is an Associate Fellow at AIAA and the former Vice Chairman of the NGAUS Corporate Advisory Panel. Jackson holds a bachelor's degree in business and economics from Lehigh University.

William A. Yucuis, Orlando, Fla. Yucuis has been a Life Member since 1974, upon graduating from the Air Force Academy. He is the Florida State Vice President. At the state level, Yucuis has been a Florida State Area VP and Aerospace Education VP for the past three years. Nationally, he has served on the Aerospace Education Council. In the Central Florida Chapter, he has served as President, Vice President, and Aerospace Education Chairman. His AFA awards include the Medal of Merit and Chairman's Citation. His state awards include Teacher of the Year, Member of the Year, and the Region President's Award. He earned a bachelor's degree from the academy and a master's degree from Purdue, both in aeronautical engineering. Yucuis retired after 20 years of service, primarily as an F-4 and F-16 pilot. He recently retired from 20 years in science, technology, engineering, and math education. ■

The Cloud Over Lindbergh

By John T. Correll

The main damage to Lindbergh's reputation was from what he said and wrote himself.

In the years following his epic flight from New York to Paris in 1927, Charles A. Lindbergh had been America's most popular hero. By 1941, however, the public's admiration for him was mostly gone, swept away by his inflammatory political speeches.

Like many others, Lindbergh was opposed to American involvement in the war in Europe, but he could not let it go at that. He had visited Germany several times and found much to like. "If England and France had offered a hand to the struggling republic of Germany, there would be no war today," he said in 1939.

Lindbergh declared in 1941 he had no preference for which side won the war but later said he would rather see the United States allied with Germany than with the Soviet Union. He told an America First committee rally that "the three most important groups who have been pressing this country toward war are the British, the Jewish, and the Roosevelt Administration."

Streets that had been named for Lindbergh were renamed. Libraries took his books off the shelves. His hometown, Little Falls, Minn., repainted its water tower to remove his name as its favorite son.

Lindbergh, angered by harsh criticism from the administration, resigned his commission in the Air Corps Reserve.

When the United States entered the war after the attack on Pearl Harbor, he wanted to take an active part but President Franklin D. Roosevelt declined to reinstate him.

Lindbergh's wartime service was as a civilian in the aircraft industry. He managed to fly almost 50 combat missions in the South Pacific in an advisory capacity as a tech rep evaluating Marine Corps F4U fighters and Army Air Corps P-38s.

Lindbergh had many supporters in and out of government who thought the President had treated him unfairly, and he kept a comparatively low profile until Roosevelt died. Presidents Eisenhower, Kennedy, Johnson, and Nixon brought him back into official favor.

Even today, a cloud lingers over Lindbergh, kept there by his own words preserved in the historical record.

DRIVEN AWAY

After Lindbergh came home from Paris in 1927, he toured all 48 states in his monoplane, *Spirit of St. Louis*, and was greeted by enthusiastic crowds. His appeal rose again in 1929 when he married Anne Morrow, daughter of a prominent New Jersey family. She became his copilot, navigator, and radio operator. Newspapers called them "the first couple of the skies."

Lindbergh was unprepared for the trappings of fame. He was pursued

relentlessly by gawkers, autograph seekers, and reporters. Letters poured in by the thousands, some of them making demands or threats.

In 1932, the Lindberghs' 18-month-old son, Charles, was kidnapped and killed. Newspapers treated the trial in 1935 of Bruno Richard Hauptman for the abduction and murder as the story of the century. The intense publicity and constant intrusion by reporters and crackpots "made life close to impossible" for the family, Lindbergh said.

In one notorious incident, press photographers from a New York tabloid forced a car carrying the Lindberghs' second-born son, Jon, off the road and took pictures, popping flashbulbs in the face of the terrified child.

Desperate for privacy, the Lindberghs fled to England in December 1935. The *New York Times* said the nation was shamed. The *New York Herald Tribune* condemned the "vast vulgarity" of the "sensationalists, publicity-seekers, petty politicians, and yellow newspapers."

The Lindberghs found the seclusion they sought, first in England and then in France, but they were drawn back into the spotlight by a request in 1936 from Maj. Truman Smith, the US military attaché in Berlin, for Lindbergh to visit Germany. Smith knew little about aviation and had been unable to obtain much information about the growing



Charles Lindbergh, the "Lone Eagle," and his airplane, Spirit of St. Louis. When Lindbergh returned from Paris after the historic trans-Atlantic flight, he toured all 48 states in the airplane and was greeted by enthusiastic crowds everywhere he went.

JAMES STEWART

in his role of roles as Charles A. Lindbergh

THE SPIRIT OF ST. LOUIS

BASED ON THE PULITZER PRIZE WINNING BOOK BY CHARLES A. LINDBERGH



CINEMASCOPE and WARNERCOLOR SCREEN PLAY BY BILLY WILDER AND WENDELL MAYES
DIRECTED BY BILLY WILDER PRODUCED BY LELAND HAYWARD
DISTRIBUTED BY WARNER BROS.

Air Force Association founding member Jimmy Stewart, shown here in a movie poster, played Lindbergh in a film about the trans-Atlantic crossing.

We lost the genetic heredity formed through eons in many million lives."

RETURN AND REHABILITATION

After the war, Lindbergh generally avoided the public eye, but was heard from occasionally. "I have not changed my belief that World War II could have been avoided, but the issue between the so-called interventionists and isolationists is past except from an academic standpoint," he told the Associated Press.

Lindbergh's longtime antipathy for the Soviet Union was in tune with US policy as the Cold War began and he was a staunch advocate for a strong national defense. He served without pay as a special consultant to the Air Force on aircraft and equipment design. He had no need for compensation, already well off from his work with the airlines and industry and his book revenues.

His first account of his famed trans-Atlantic flight was *We* (referring to himself and his airplane), published in 1927, but he told the story in a more substantial way in *The Spirit of St. Louis* in 1953. It won a Pulitzer Prize and was made into a movie. Jimmy Stewart, 49, was convincing in his portrayal of the 25-year-old Lindbergh.

President Eisenhower restored Lindbergh's commission and promoted him to Air Force brigadier general in 1954. The Lindberghs were guests of President Kennedy at the White House in 1962 and were invited back by President Johnson in 1968 and President Nixon in 1972.

In his later years, Lindbergh became an ardent conservationist. In 1964 he came to the conclusion that

"airplanes depend upon an advanced civilization, and that where civilization is most advanced, few birds exist. I realized that if I had to choose, I would rather have birds than airplanes."

FINAL DISCLOSURES

Lindbergh left a huge amount of commentary on the public record: speeches, articles, correspondence, statements to the press, and six autobiographical books. Many of the words that weigh most heavily on his reputation are from the last two, *The Wartime Journals of Charles A. Lindbergh*, published in 1970, and the posthumous *Autobiography of Values* in 1977.

The journals, kept in handwritten form from 1938 to 1945, were reduced by a third to enable publication in a single volume, which ran anyway to 1,038 pages. The cuts were said to be for the purpose of shortening only, with nothing of substance left out. Lindbergh still believed that he had been right and saw no reason to hold back. Complete copies of the journals, archived at several universities, have been made available to researchers.

Eric Goldman, reviewing *Journals* for the *New York Times*, said they showed that "Lindbergh had considerable compassion for the German Jews. But much more than his public charge, it attacks the 'Jewish influence' in bringing war to the United States, particularly as a result of Jewish 'control' of a 'huge part' of the mass media. A good deal of space is given to describing brutalities by US troops against Japanese soldiers; the atrocities of individual Americans are equated with the official policy of the Third Reich. Not a sentence excoriates Nazism as a general credo or poses it as a menace to civilization in any tenable definition of the word, including Lindbergh's own. Entry after entry bespeaks a preoccupation, almost an obsession, with the 'race problem,' those 'northern peoples' versus all the others."

In the autobiography, Lindbergh stopped short of unequivocal denunciation of Hitler. "Adolf Hitler! Such a strange mixture of blindness and vision, patriotism and hatred, ignorance and knowledge," Lindbergh wrote. "Some irrational quality of the man, his actions, and his oratory enticed the entire German nation to support his ideas."

When Lindbergh died Aug. 26, 1974, President Ford said, "For a generation of Americans and for millions of other people around the world, the 'Lone Eagle' represented all that was best in our country—honesty, courage, and the will to greatness. In later years, his life was darkened by tragedy and colored by political controversy. But in both public and private, General Lindbergh remained a brave and sincere patriot."

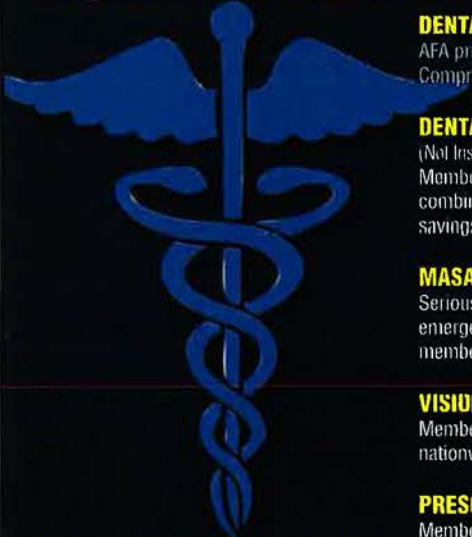
Lindbergh's statements and writings are too clear and consistent to leave much room for misunderstanding. The best conclusion that can be reached is that some things about him were heroic and admirable and some things were not.

The *New York Times* reported his death as the "passing of a hero" and said that "in the years leading up to World War II, Lindbergh was unfortunately to prove once more how wrong it is to expect oracular wisdom from popular heroes."

The *Washington Post* pointed out "his triumphs, his tragedies, and his humiliations were all on a grand scale. And they were all borne with a grand courage." ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributor. His most recent articles, "Short Fuze to the Great War" and "The Geneva Conventions Evolve," appeared in the July issue.

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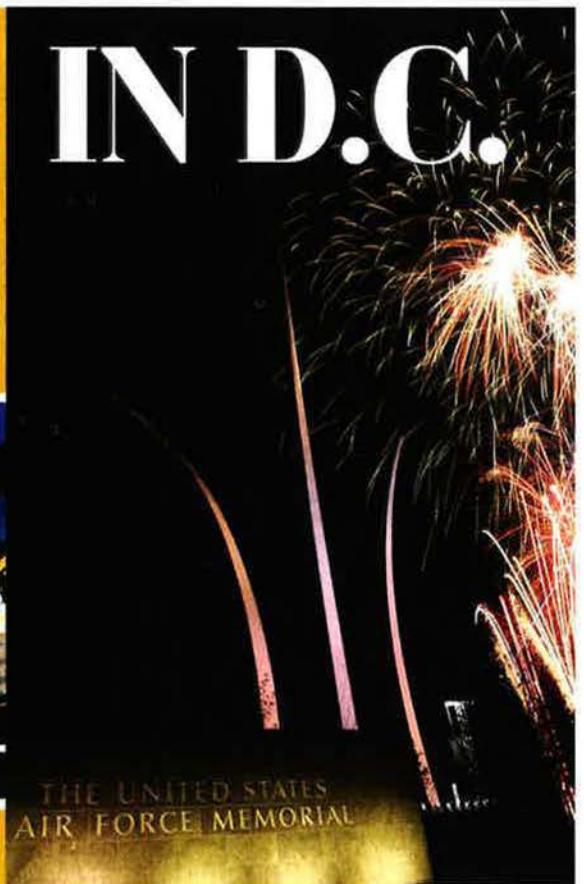
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THE UNITED STATES
AIR FORCE MEMORIAL

AFA National Report

natrep@afa.org

By Frances McKenney, Assistant Managing Editor

Work With Us! Please.

How's this for young talent just begging to help AFA?

In June, University of South Carolina AFROTC cadet Savannah G. Knight spoke to a **Columbia Palmetto Chapter** meeting in Columbia, S.C., and told them that the local Arnold Air Society cadets want more involvement with AFA.

Knight spoke as the incoming AAS commander of the squadron centered around the university's AFROTC Det. 775.

Arnold Air Society is a professional, honorary service organization of AFROTC cadets and is affiliated with AFA. Knight said in a phone interview after her chapter presentation that the idea of working with AFA came right out of the AAS list of objectives: "To encourage increased communication with Air Force officers and leaders in national defense, government, and industry" and to demonstrate "the close relationship between civilian and military institutions."

Knight said she had been surprised that no connection with the local chapter seemed to exist, so she took the initiative to hunt down email addresses and make the contact.

She invited fellow cadet Grant Brannon to join her at the chapter meeting. Both are rising juniors and public relations majors, with Knight hoping to become an intel or personnel officer and Brannon pursuing a career as a pilot, reported Chapter VP Nelson McLeod. The cadets spoke to the chapter about the summer field training they would receive, beginning in July, at Maxwell AFB, Ala., and the fierce competition to earn a slot.

As for combining forces, they suggested a joint AAS-AFA dinner and volunteered to work with the chapter on service projects. They also talked to chapter members about the possibilities of cadets taking nighttime flights and shadowing Air Force personnel at nearby McEntire Joint National Guard Base or Shaw Air Force Base in Sumter, Knight said.

Cadets can learn about Air Force careers through meeting AFA members, she pointed out. "It's important for young people to hear their stories," Knight continued. "We saw the Air Force Association as a great first step" in helping cadets plan their careers.

Run, Spot, Run: The Goddard Chapter's Half-Marathon

The first road race organized by the **Robert H. Goddard Chapter** in California raised more than \$1,400 for AFA's Wounded Airman Program.

Seventy-two adults, seven children, and at least five dogs turned out for the Kids Run, 5K, and Half-Marathon held on a foggy Saturday morning in June at Vandenberg Air Force Base. "Not bad for an event that was word-of-mouth, put on by a core team of five individuals, all within a 10-week period," commented Chapter President Juan E. Cruz.

An AFA Emerging Leader, Cruz said he got the idea for this fund-raising run after hearing AFA presentations on the Wounded Airman Program and its goal of providing equipment, care, and quality of life items for seriously ill, wounded, or injured airmen.

Several chapter members pitched in to carry out Cruz's project. MSgt. Jill Higgins, who is also state AFA secretary, headed the event, securing approvals and support from base agencies such as the medical and security forces squadrons.

SSgt. David Livoti (left), Kalani Livoti, Nola the German Shepherd, and Homey the Husky ran the Goddard Chapter's inaugural half-marathon in California. They all finished in just under two hours. Jennifer Tribble (green T-shirt in photo below) came in first among women in the 13.1-mile race, at one hour, 53 minutes.



Photos by TSgt. Tyrone Lawson



New chapter member A1C Stephen Spor rounded up sponsors from the base, a movie theater, sport and health clubs, and the San Luis Obispo Marathon. SMSgt. Mitchell Overton and MSgt. Craig Rispoli spread word of the event and collected food and donations from several local enlisted organizations. On race day, chapter member A1C Jessica Muñoz managed nearly 60 volunteers, whose ranks included Community Partners and family members and friends of the runners.

Who won the big race? Who knows?

Cruz said, "We did not get the name of the gentleman who finished at one hour, 37 minutes because he kept on running a few more miles" past the finish line.

Memorial Day

Palm Springs Chapter members helped observe Memorial Day in California by attending a service at Desert Memorial Park cemetery, along with some 200 other guests.

Chapter officers William L. Bramer, Shirley Powell, and Daniel Lieberman were among those at the annual Cathedral City event, hosted by a local veterans group.



At the Rochester Institute of Technology, N.Y., 2nd Lt. Philipp Wittmaack and 2nd Lt. Robert Barns (far right, respectively) show off commissioning certificates. Wittmaack and Barns launched the CyberPatriot team at a Rochester high school last year. (See "CyberPatriot," June "AFA National Report," p. 72.) The other new lieutenants are (l-r): Lauren Forcier, Christopher Boise, Paul Grossi, and Raymond Zheng.

In past years, Chapter Treasurer Powell and others helped decorate the cemetery with 300 burial flags donated by families of deceased military veterans. But these days, Powell lets the local Boys and Girls Clubs and JROTC cadets hoist the flags, on 20-foot-tall poles, into in-ground holders. Instead of physical labor, she keeps a hand in this activity by spreading the word to recruit these young volunteers.

As has been the case every year, the guest speaker came from Twenty-Nine Palms Marine Corps Air Ground Combat Center, north of Palm Springs. Col. David J. Eskelund, commanding officer of the Marine Corps Logistics Operations Group, had

the honor. And as it does every Memorial Day, the 60-member Palm Springs High School band provided the music.

Powell said she continues her involvement in this ritual "to represent our group and the military." She is a veteran of 38 years on Active Duty and in the Guard and Reserve, primarily in medical air evacuation.

Maryland State Convention

The Maryland State Convention took place in June at a Hilton hotel in Linthicum, the **Baltimore Chapter's** home turf.

The business session featured year-in-review presentations by Baltimore Chapter President CMSgt. Jorge Laurel, **Central Maryland Chapter** President MSgt. Neil Stege, and John L. Huggins Jr., president of the **Thomas W. Anthony Chapter**.

Maryland State President E. Miranda Hernandez presented Huggins with the AFA Maryland Chapter of the Year award. Laurel received the AFA Maryland Member of the Year award. Huggins and Stege also were honored with excellence in leadership awards.

Central East Region President F. Gavin MacAloon spoke to the group about AFA developments, including eMembership, offering reduced-price AFA membership with access to the digital edition of *Air Force Magazine*.

Convention attendees elected 2nd Lt. Frank Scaffani III as state president; Hernandez as VP; MSgt. Beth Stribley as treasurer; and for his third term, Terry Bass, who is a second-generation member of the Anthony Chapter.

Icelandic Rescue: How We Can

Texas State President and **Alamo Chapter** member Gary L. Copey unveiled a commemorative plaque in Iceland in May, memorializing an ocean rescue that happened 20 years ago.

In 1994, Copey was part of two 56th Rescue Squadron HH-60 crews stationed at NAS Keflavik, Iceland. In January that year, they set out to rescue the crew of an Icelandic tug, *Godinn*, stranded some 300 yards off the coast of

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Vodflavik, Iceland. The helos faced extreme weather conditions: a storm of snow, sleet, and rain, 30-foot breakers, 35-degree water, and "almost hurricane-force winds," Copsey recalled in a July phone interview.

The Pave Hawk crews considered aborting the mission. Then they learned that the local rescue forces had already done so and that one of the *Godinn's* crew had died.

"We quit even thinking about turning around," Copsey told the ceremony's audience. "It went from why we shouldn't to how we can."

The helo crews reached *Godinn*, where the remaining six crew members had lashed themselves to the roof of the wheelhouse, the only part of the vessel not underwater. The Pave Hawks flew the survivors to shore. Two needed immediate critical care, however, so the rescue crews transported them to a hospital, by this time having to use night vision goggles in the darkness.

Airmen deployed with the 48th Air Expeditionary Group, RAF Lakenheath, UK, attended the commemoration ceremony, traveling to its rugged coastal site via all-terrain vehicles.

Afterward, Copsey, *Godinn* survivors, and rescue team members received an invitation from Iceland's President Olafur Ragnar Grimsson to a reception at his home. The country's foreign minister, Gunnar Bragi Sveinsson, had earlier also hosted a reception for them.

Why memorialize this particular rescue with a large plaque mounted on a pedestal? According to a 48th AEG press release, veteran Icelandic search and rescue volunteer Skuli Hjatson explained: "This is one of the greatest done ever here—as simple as that."

Below: In a Memorial Day weekend display at the American Air Power Museum in New York, Long Island Chapter's VP Al Parise (l) and Chapter President Fred Di Fabio (r) highlighted the Vietnam War and a commemorative medal the chapter has made for Vietnam vets.



USAF photo by TSgt. Benjamin Wilson

Off Iceland's coast in May, a helicopter lowers a USAF pararescueman during a commemoration ceremony. Alamo Chapter's Gary Copsey unveiled a plaque at the event, memorializing a 1994 ocean rescue.



At left: CMSgt. Mark Thomas, command chief from the 70th Intelligence, Surveillance, and Reconnaissance Wing at Fort Meade, Md., speaks to the Maryland State Convention. He gave his perspective on new areas of interest, the challenges of maintaining aging equipment, and force management actions. Maryland State President E. Miranda Hernandez said Thomas was tapped to be keynote speaker because of his track record as an enlisted leader and mentor.

Lauren Brett (center) received the Minuteman Chapter and Massachusetts State Teacher of the Year award from (l-r) William Thomas, Charlestown High School headmaster; Yvonne Thurston, Minuteman officer and New England Region aerospace education VP; Joe Bisognano, Massachusetts state president; and US Rep. Michael Capuano (D-Mass.). Brett teaches physics and engineering at Charlestown High School.



New York's Genesee Valley Chapter President Al Smith (second from left) awarded the Chapter Teacher of the Year honor to Logan Newman (center). Newman teaches optics at East High School in Rochester, N.Y. With them, left to right: Adam Urbanski of the Rochester Teachers Association, chapter member Kyle Mullen, and East High School teacher Paul Jonasse.



6th Bomb Gp Assn, Tinian (1944-45). Sept. 25-28 in Baltimore. **Contact:** Glenda Richards (951-233-4516) (grr41797@msn.com).

20th Special Ops Sq. Sept. 24-27 in Charleston, SC. **Contact:** Gene Cothran (864-216-1088) (ecocthran9865@charter.net).

29th Fighter-Interceptor Sq. Oct. 8-11 in Branson, MO. **Contact:** Harold Phillips (405-341-0621).

100th Bomb Wg, Pease AFB (1956-66). Sept. 18-21 at the Crockett Hotel in San Antonio. **Contact:** Bill Obert (303-520-7643) (billobert2@yahoo.com).

310th Bomb Wg (SAC). Sept. 9-11 at the Cocoa Beach Oceanfront Best Western Hotel in Cocoa Beach, FL. **Contact:** Ed Eassa (315-918-4108) (edeassa55@aol.com).

322nd FIS, Kingsley Field, OR. Sept. 19-21 in Klamath Falls, OR. **Contact:** Bev Peloquin (714-897-1834) (bevpelequin@gmail.com).

507th Tactical Fighter Gp, Tinker AFB, OK. Sept. 26-27. **Contact:** John Russell (vassal1@cox.net) (www.shokies.com).

781st Bomb Sq, 465th BG. Oct. 1-4 at the Hilton Garden Inn in Dover, DE. **Contact:** Ken Wiggins (410-398-0742) (kennard.wiggins@gmail.com).

Air Force Postal and Courier Assn, Sept. 16-19 at the Holiday Inn Downtown Superdome in New Orleans. **Contact:** Ernie Smith, 410 Zorayda Ave., St. Augustine, FL 32080 (904-824-6097) (esmith-6@comcast.net).

Air Weather Recon Assn. Sept. 17-21 in Biloxi, MS. **Contact:** Bernie Barris, 11019 Oaktree Park, San Antonio, TX 78249 (210-696-5072).

B-66 Destroyer Assn. Oct. 15-19 in Branson, MO. **Contact:** Jim Milam (254-845-1310) (jimmilam@aol.com).

Pedro Rescue Helicopter Assn. Sept. 17-20 at the Air Force Academy in Colorado Springs, CO. **Contact:** Leonard Schultz, 3708 Duquesne Dr., Montgomery, AL 36109 (334-273-9804).

Phan Rang AB, Vietnam, all are welcome. Oct. 9-11 at the DoubleTree Hotel-Reid Park in Tucson, AZ. **Contacts:** Lou Ruggiero (louruggs@comcast.net) or Doug Severt (dougsevert@cox.net).

Southeast Asia Forward Air Controllers. Oct. 22-26 in Fort Walton Beach, FL. **Contact:** Jim Weatherbee (850-862-2861) (jimwxb@aol.com).

Titan II wings, 308th, 381th, 390th, 395th. Sept. 24-28 at the Chateau on the Lake in Branson, MO. **Contact:** Elaine Lasher, P.O. Box 17916, Tucson, AZ 85731 (520-886-3430) (redsnooty@comcast.net).

Troop Carrier/Tactical Airlift Assn. Oct. 15-19 at the DoubleTree Suites Hotel-Tucson Airport in Tucson, AZ. **Contact:** Jim Esbeck (520-297-7475) (jimezz@comcast.net).

US radar sites Iceland, 667th, 932nd, 933rd, and 934th Aircraft and Warning Sqs. June 1, 2015, in Dayton, OH. **Contact:** William Chick (littlechick@msn.com).



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P-3 Orion



The P-3 Orion, perhaps the world's premier antisubmarine and maritime surveillance aircraft, has served the US Navy for more than five decades. In the early Cold War, the most important role of the four-propeller aircraft was continuous tracking of Soviet ballistic missile and attack submarines. However, the Orion has served ably in many other contingencies, from the Cuban Missile Crisis to Vietnam, from the Balkans to recent Mideast wars.

The P-3 was developed simultaneously with the Lockheed L-188 Electra turboprop airliner. The Orion differed structurally from the L-188, with a shorter forward fuselage, a long tail boom for the magnetic anomaly detector to search for submarines, and space for a crew ranging from 11 to 23, depending on the mission. It boasted many features: short-takeoff and landing capabilities, exceptional range, heavy load capability, long loiter time, wide

variety of armament options, and high reliability. Its mission was to use sophisticated electronic and acoustic gear to locate submarines and, if called on to do so, destroy them at sea with an array of weapons. During the Cold War years, these included nuclear depth charges. The Orion has been sustained and extended by continuous upgrades.

The P-3 is one of a handful of exceptional military aircraft—such as the B-52 bomber, U-2 spyplane, and KC-135 tanker—that has seen continuous US service for more than 50 years. The Navy has over time changed P-3C operational emphasis to antisurface warfare. Indeed, the P-3's long range and long loiter time have made it a valuable weapon in recent Iraq, Afghanistan, and Libya operations. The Navy's P-3 aircraft will eventually be replaced by the P-8A Poseidon.

—Walter J. Boyne

This aircraft: US Navy P-3C Orion—BuNo 158926—as it looked in 2009 when assigned to VP-46, based at NAS Whidbey Island, Wash.



In Brief

Designed and built by Lockheed ★ first flight Nov. 25, 1959
 ★ number built 757 (Lockheed, 650; Kawasaki, 107) ★ crew of 11 (three naval aviators, two naval flight officers, two flight engineers, three sensor operators, one inflight technician)
 ★ **Specific to P-3C:** four Allison T56-A-14 turboprop engines
 ★ armament (defensive) Zuni rockets ★ munitions load up to 20,000 lbs of ordnance—Mk 46/50 torpedoes, AGM-84 Harpoon, AGM-84E SLAM, AGM-84H/K SLAM-ER, AGM-65 Maverick, Zuni rockets ★ max speed 473 mph ★ cruise speed 378 mph ★ max range 2,738 mi ★ weight (loaded) 142,000 lb ★ span 99 ft 7 in ★ length 116 ft 8 in ★ height 38 ft 7 in.

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Interesting Facts

Deployed for first mission in 1962 Cuban Missile Crisis ★ the Royal New Zealand Air Force set an airborne mission record for the type of 21.5 hours ★ flies on station with one or even two engines shut down to conserve fuel ★ provided aerial support to rescue of Richard Phillips, kidnapped by Somali pirates ★ modified for use in counterdrug operations, especially against "narco-subs" ★ played major role in search for missing Malaysian Airlines flight MH370 ★ suffered midair collision with Chinese J-8 interceptor in 2001, leading to forced landing on Hainan ★ flown by 20 military air arms, four US civilian agencies.

Lockheed Martin photo by Erik Miller



A P-3 Orion flies over a submarine.



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