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March 2014, Vol. 97, No. 3

FEATURES

- 20 The Once and Future Mobility Force**
By John A. Tirpak
The mobility rules may change just as AMC fields the force it needs.
- 26 Pacific Rotations**
By Marc V. Schanz
Across Asia and the Pacific, USAF airmen will deploy to work with allied air arms.
- 32 Fallujah**
By Rebecca Grant
A grinding ground war a decade ago reinforced the importance of airborne intelligence and precision.
- 44 "Systemic Problems"**
By Amy McCullough
Allegations of widespread cheating in the ICBM force have forced DOD to take action.
- 48 Coming Home**
By Merri M. Shaffer
Reuniting families with the remains of their loved ones killed in combat is one of the Air Force's most sacred duties.
- 54 Gates versus the Air Force**
By John A. Tirpak
For former Defense Secretary Robert Gates, it was "one damn thing after another."
- 58 DOD Senior Leadership Photochart**
Compiled by Chequita Wood
DOD's top leadership in Obama's second-term Administration.
- 62 The Weinberger Doctrine**
By John T. Correll
Thirty years later, it is still the yardstick against which the use of force is measured.



20



About the cover: A C-17 on the ramp at a base in Southwest Asia. See "The Once and Future Mobility Force," p. 20. USAF photo by SSgt. Andy M. Kin.



26



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DEPARTMENTS

- 4 **Letters**
- 8 **Aperture**
Not so superior anymore; R&D is a strategic asset; Twenty-three years of litigation; Intangible but valuable by-product; Better buying power 2.0
- 12 **Air Force World**
- 18 **Index to Advertisers**
- 18 **Senior Staff Changes**
- 19 **Chart Page:** *Boomer Budget Bust*
- 47 **Verbatim**
- 68 **Keeper File:** *The Long Telegram*
- 70 **Flashback:** *The Dambusters*
- 71 **AFA National Report**
- 75 **Reunions**
- 76 **Airpower Classics:** *P-26 Peashooter*

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Total Force Means Total

I tried not to respond to [*Verbatim: Eternal Life, Found*, January p. 56] particularly the remarks of former Secretary of the Navy John H. Lehman regarding the bureaucracy of DOD. While his numbers are likely correct, the context in which they are presented falls short of conveying what contractors and DOD civilians bring to the table.

The supporting establishment (DOD civilians and contractors) forward deploy into harm's way along with the troops and perform tasks vital to the mission. Also consider that DOD manufactures virtually none of the end items required to defend America. Contractors do. Further, contractors provide vital services not otherwise available at a reasonable cost to our uniformed services. The US Navy does not build aircraft carriers, Northrop Grumman does. The US Air Force requires highly specialized tailored contractor support in producing the air tasking order critical to our troops in Afghanistan and elsewhere. The KC-46 is manufactured by Boeing, not USAF. Acquisition is being managed by DOD, USAF Active Duty personnel, and by DOD civilians. There is a US Navy civilian engineer and former Marine aviator (F-18) who is the program manager for digital close air support systems supporting the Navy and Marine Corps. He is one of a handful of Americans who can deliver this vital game-changing capability.

There are huge differences between efficient and effective DOD acquisitions. Immediately prior to the Battle of Midway (June 1942), the Navy supporting establishment rushed electric bomb fuses to the US Fleet in Pearl Harbor. The fuses had not been adequately tested and many malfunctioned, causing bombs to drop harmlessly into the Pacific. Aircrew were forced to find value in "drawing fire." The supporting establishment was efficient, but not effective, and the US nearly lost the Battle of Midway.

It is too easy to lament the bureaucracy and not recognize the vital role played by our supporting establishment, particularly when delivering high risk/high payoff capabilities. The Secretary's point is well-taken, but we ought not to apply a meat cleaver to systems and structures supporting deployed forces, be they uniformed, DOD civilian, or

contractor. Sadly, there is a direct relationship between Americans interred in our national cemeteries (then and now) and unilateral decisions affecting our supporting establishment. Shall we be governed by a coherent national strategy and not incendiary sound bites?

Lt. Col. Tom Brannon,
USMC (Ret.)
Navarre, Fla.

Enlisted Airmen Fly, Too

Ms. Rebecca Grant did an excellent job framing the challenges of aircrew management, but she was incorrect about the career enlisted aviators (CEAs), who do not fall under the rated heading [*How Many Aircrew?* January, p. 42]. These 15,000 Total Force airmen are managed by a single career field manager (CFM), a chief master sergeant who is supported by a small staff. This team coordinates closely with majcom functional managers and Air Force rated managers to meet Air Force requirements. Needless to say, running the CEA force is challenging in the shadow of pilot-centric leadership.

CEAs face the same retention as rated officers, but they are a secondary consideration when developing the flying force. Granted, the time and money requirements to create pilots are much higher than enlisted aircrew. I get that. Still, developing and retaining an experienced enlisted force is just as important. Mission execution takes an entire flight crew outside of the single-seat platforms. Despite this, CEA management can be an afterthought. For example, although CEAs are involved across the full spectrum of AF missions, in 2011 an AF/A3 realignment placed them under the AF "Global Mobility" division despite their heavy, heavy presence in the CAF and SOF communities (AC-130s, AWACS, JSTARS, MC-12, RPAs, etc.). This means all CEA issues regardless of their nature must be vetted through a career MAF division chief—a time-consuming educational process. And there are other challenges.

Flying hours are allocated for rated officer training. CEAs utilize available seating on pilot sorties to create aircrew members across eight separate flying specialties. These range from boom operators to flight engineers and from special missions aviators to RPA sensor

operators. Basically, each year when the Air Force sets pilot training, CEAs make do. This creates second- and third-order challenges. First, CEAs are limited to training seats "available"—not training seats "required to meet mission needs." This leads to systemic problems like one that developed over two decades beginning in the early 1990s. Too few mobility pilots were trained to create the parasitic hours necessary to recruit, train, and retain the loadmaster corps. Overall manning went below 80 percent in 2010—much worse in LD/HD platforms. Focus wasn't placed on surging loadmaster manning until CSAF took interest following unsupported MAF missions. The second problem is the dance that's generated between the CEA CFM and AF/A1 following the programmed flight training conference. A1 uses enlisted manpower modeling to forecast non-prior-service and retraining allocations, and these numbers are usually quite accurate. Still, available flight training isn't known until well after the enlisted initial skills quotas are published. This means the CEA CFM must annually ask for manpower corrections, either giving back training allocations or begging for more. This isn't always doable, and it still leaves the requirement piece unanswered. Every year the CFM builds a business case for manning, and every year the A1 divisions have done their best to assist, usually to the detriment of non-flying AFSCs.

Third, CEAs are "career" aviators, just as the name implies. Congress, AF policy, and AF instructions mandate that flying positions be filled by only the most-qualified individuals capable of sustaining a career in aviation service. This makes CEAs the proverbial

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round pegs in the enlisted development square holes. CEAs earn flight pay and special status because of their unique qualifications and abilities. The Air Force invests more in CEAs than most any other AFSC so they will be able to perform flight duties at anytime during their careers. It doesn't matter if the CEA is an airmen first class or a chief master sergeant. Flying qualifications must be maintained regardless of rank, just like the rated corps. CEAs support special duties when able, but the primary focus is flying aircraft—a sacrifice they gladly choose. This is frustrating when talks of stratifications, enlisted promotions, and special career incentives focus on duties outside of their primary skill sets.

Finally, CEAs are some of the most underutilized resources on majcom and air staffs. In response to a rated shortage in the early 2000s, AMC replaced dozens of rated officers with CEAs on the command's staff and at the Tanker Airlift Control Center at Scott AFB, Ill. These airmen have performed magnificently during arguably the highest opstempo in recent history. Can a CEA give an F-22 pilot a check ride? No. But that same CEA can plan airlift, inspect training and evaluation programs, flight information files, safety programs, and more. With all of this capability, I'm at a loss why majcoms beg for more and more rated staff every year, and either staff billets or cockpits go unfilled. I'm baffled why commands like AFSOC want to replace CEAs on AC-130s and MC-12s with rated officers—even though these airmen are more affordable, provide long-term sustainment and experience, and have excelled at these jobs since Vietnam. It doesn't make sense.

As Ms. Grant spells out, there are no easy answers for recruiting and retaining aircrew, so I certainly empathize with the Air Force rated managers. I worked with Mr. Ingram, Mr. Winslow, and Mr. Wigle in Air Force rated management for over two years. They are the absolute best, having to contend with four-star general officers on down, all in an attempt to quench the insatiable thirst for more rated. Trust me, I know the Air Force needs experienced pilots.

Still, flying crew-served aircraft is a collective effort. I'm writing this to recognize the CEA CFM team and those 15,000 airmen who take on this challenge. Overcoming obstacles are all in their day's work. They are unique warriors—strapped to ground-based enlisted programs while trying to function in a rated world. They are quiet professionals, focused on mission accomplishment. I love 'em all.

CMSgt. Douglas Massingill,
USAF (Ret.)
Hood River, Ore.

All's Well That Ends Well

I found "The Feeder Force" article quite interesting in that it closely paralleled my World War II experience, though not through the Civilian Pilot Training program [January, p. 67]. Like Andrew Mungenast in the opening paragraph, as a youngster I was fascinated by airplanes. A neighbor boy and I rode our bicycles from east Nashville out to Berry Field and paid \$5 to ride in a snazzy red open cockpit Waco biplane (without our parents' knowledge, of course). As soon as I graduated from high school in June 1943, I signed up for Army Air Forces' flight training. I was put in the reserves and scheduled to be called to Active Duty after I turned 18.

I went through basic training at Miami Beach in January 1944, qualified for pilot, bombardier, and navigator, and received my Aviation Cadet cap and insignia. But like the guys in the CPT program, my fellow cadets and I found the shift in the air war had reduced the need for more aircrews. They loaded a couple of hundred of us on a train and shipped us up to Moody Field, Ga. We were called "on-the-line trainees." Our training included things like KP and helping build a new firing range, which the German POWs on base refused to be involved in.

After about three months, they shipped us off to the College Training Detachment at Winthrop College, a girls' school in Rock Hill, S.C. As your article mentioned, we were to get 10 hours in a Piper Cub, but I broke a toe clowning around and missed the last three hours. As it turned out, this was all the aircrew training I would get.

After CTD, my group was shipped to Shaw Field, S.C., for more "on-the-line" training. Shaw provided basic flight training for both American and French cadets. I was assigned to the air inspector's office and spent my time mostly filing Air Force regulations. I did get to do a little flying, riding with a young lieutenant as he checked out BT-13s following periodic inspections.

In early 1945, an opening came available and I was sent to the San Antonio Aviation Cadet Center for preflight training. Now I was getting somewhere, or so I thought. But after preflight, a group of us was sent across San Antonio to Randolph Field to be guinea pigs at the School of Aviation Medicine. After being probed by candidates for flight surgeon and swung in a gondola to test airsickness pills, another cadet and I were assigned as clerks for the transient officers' quarters. Shortly afterward the war ended and with it my hopes of becoming a pilot. I was discharged in November, started college in January, and pursued a commission in AFROTC.

Joining an Air National Guard unit after graduation, I attended Intelligence School at Lowry Air Force Base and served in the DI at 5th Air Force Headquarters during

the Korean War. Despite the frustrations of my World War II experience, I wound up with a satisfying Air Force career, mostly in the ANG.

Lt. Col. Chester D. Campbell,
USAFR (Ret.)
Nashville, Tenn.

Last Round, OK, Folks?

Regarding Lt. Col. [Catherine A. Newell's] letter, "No Offense Taken. I Guess," January p. 7, me doth think that she protests too much. Lieutenant Colonel Newell wrote in response to Colonel Lupa's letter "No Offense Intended, Ladies," November 2013, p. 10. I read Colonel Lupa's letter, and I thought it very well-written.

Lieutenant Colonel Newell thinks it "unfortunate" that this is an emotional issue. Why is this unfortunate? I am an engineer by education, but I know we can't always ignore emotion, especially on such important issues. After all, these potential women combat personnel are our daughters, wives, and mothers; we shouldn't hope to solve it only with some scientific formula, as it is not nearly so neat and precise as lab work.

Beyond her much desired scientific research findings, can even she ignore thousands of years of recorded history—history that clearly shows women as primarily traditionally nonviolent, caring, loving?

That doesn't mean women can't, won't, or haven't fulfilled all roles as men do, to include direct combat, but that doesn't explain why women have largely by choice avoided direct combat in the military. It isn't solely because men aggressively denied millions of eager female volunteers these choice direct combat jobs up until recent decades. I don't know why, but it appears that women just did not typically choose to pursue them or think it was their appropriate role.

I agree with her that way too many young men are no longer qualified for, nor interested in, military service, and for that reason alone we may require more female military volunteers. (Is that an oxymoron—require and volunteer?) If it is mandated that women may participate in direct combat roles, then it follows that in the name of fairness 50 percent of those "high risk" positions must be filled by women to ensure the burden is carried equally by men and women. That is the only way they can have their cake and eat it, too.

Lieutenant Colonel Newell stated, "This isn't just an issue of fairness to women who have both the desire and the capability to perform in these positions." True, and therefore, for the sake of fairness this policy decision should cause us to immediately address another gross inequity in the system: male-only draft registration. The law must change to require all draft-age women, as well as men, to promptly

register for the draft—a necessary step, equal in importance to allowing them to participate in direct combat. The segue to that is then, in a rare national crisis or with lack of sufficient qualified volunteers, to require 50 percent of all draftees be women, and of those, require 50 percent representation in direct combat roles.

I served for 35 years and held positions from squadron command through wing command. I have flown with women aviators in trainers, tankers, and fighters from nearly the beginning of my career in 1977, and without a doubt many have performed admirably. Beyond flight ops, I have served with female service members in a variety of career fields, and in general they performed as well as men in those fields. Also, in all that time, with all that contact with female service members, I don't recall any sense that the vast majority had a passion to enter into direct combat roles, or that they thought women should be registered for or drafted into the military, and particularly into direct combat jobs. In fact, I have read that many female service members would be strongly opposed to being forced into direct combat roles, but then again so might some men. It is a case of being careful what a few ask for, as the many just might get it.

It now appears we no longer have a choice but to have women in direct combat roles, but it doesn't necessarily mean we should. Further research or testing "under a microscope" would likely not provide honest answers if we were to delay a decision further. However, career ambitions and promotions should not have been the only criteria, and it should not have been driven by the relatively small percentage of military women or soon to be recruits who want to be in direct combat roles, or have been decided by fiat by the politically correct leaders in our executive or legislative branches. Such an important step should have been determined following a loud and clear public debate on the overall pros and cons—which never happened. It is so much more than who can pick up a heavy box or who wants to do the job.

Lastly, beyond all the philosophical arguments and the unique physiological differences between the sexes, the ultimate bottom line is combat capability, and if the concerns of Colonel Lupa prove to be true, then we will all be disappointed.

Col. William T. Cahoon,
USAF (Ret.)
West Point, Ind.

Lieutenant Colonel Newell made this sweeping assessment of today's young males: "Finally, for those who are dead set against women in combat roles, let me point out that the pool of eligible male candidates is declining precipitously. If the

statistics aren't bad enough for you, try to find a kid to help you with farm work. It's an uncommon teenage boy who is physically fit, can follow directions, can think for himself if necessary, is willing to work in uncomfortable conditions, and is in the least bit attentive to detail. Can you imagine a 19-year-old-male unashamed that a woman in her mid-30s can carry more and work harder, better, and longer? I've seen it, and the situation didn't make me feel proud of myself: It made me fear for the future of our nation."

So Lieutenant Colonel Newell has seen a 19-year-old male outperformed by a 30-something woman and from that she fears for the future of our nation? Based on what, her observations in a male vs. female hay bale tossing competition? Give me a break.

As much as Lieutenant Colonel Newell would like to think that our nation suffers from a shortage of physically, mentally, and motivationally challenged young males, she was apparently not present when we entered the Vietnam conflict with a population of young males that could arguably fit a similar description. But basic training tends to turn mush into mettle and delivers combat-ready individuals at the end of the training pipeline. A result, I suspect, that is more the case with the male population than with females—although I am not qualified state that definitively.

On the other hand, last year just 45 percent of female marines passed the new physical standard of completing three pull-ups—a result that was so embarrassing that it caused Marine Corps Commandant Gen. James Amos to suspend full implementation of the new standard so trainers could "continue to gather data and ensure that female marines are provided with the best opportunity to succeed"—which really means that Marine brass need more time to configure a physical performance standard that will pass the smell test and allow champions of women serving in combat to claim that they got there under the same standards as their male counterparts.

Perhaps Lieutenant Colonel Newell is correct when she states, "Automatically disqualifying women from some or all of the positions in question might be a luxury we can no longer afford. This isn't just an issue of fairness to women who have both the desire and the capability to perform in these positions, it's a manpower issue"—operative word being "capability."

But opening all combat roles to women has never really been about fairness so much as it has been about being equal under the law, even if you can't do three pull-ups.

Frank G. Scafidi
Carmichael, Calif.



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OBJECTS IN MIRROR ...

Cuts in research and development have so badly eroded the US lead in military technology that it's razor thin in some areas and gone in many others, according to the Pentagon's top technology chief. Competitors are catching up fast and unless action is taken—and quickly—the lost edge will pose a profound strategic problem for the nation.

"Technological superiority is not assured," said Frank Kendall, the Pentagon's acquisition, technology, and logistics chief. "I'm very concerned about ... where we're going to end up," he said during a January panel discussion sponsored by the Center for New American Security in Washington, D.C.

Kendall said the US has gotten complacent since its technology led to overwhelming victory during the Cold War and the first Gulf War, and this "led to an assumption over the next 25 years that technological superiority would be a fact of life," but it isn't, he said.

Other countries are increasing their R&D investments "while we're decreasing ours," and consequently, "we do have reason to be concerned," he reported.

The US is only "several years ahead" of China and Russia in fifth generation fighter technology, as evidenced by their progress with stealth fighters of their own, he noted. Competitors have achieved parity in ballistic and cruise missiles, Kendall warned—"they're doing quite well compared to us"—and electronic warfare "is a close race right now." The US still clings to a lead in submarine technology, but "our space systems are vulnerable." There are more areas of concern, but these are classified, Kendall said.

Despite the need to keep ahead of the Joneses, R&D spending is taking big hits in the defense budget. That's because sequester-mandated spending levels must be reached so fast they can't be achieved simply by cutting manpower or force structure. R&D spending is down in the recently enacted 2014 defense budget, and the request in Fiscal 2015 "is much worse," Kendall said.

In January, China confirmed it had tested a hypersonic glide vehicle—an accomplishment that seems to put it easily on par or beyond the US in an area that Air Force Chief of Staff Gen. Mark A. Welsh III has identified as critical to USAF's future success. The revelation led several members of the House Armed Services Committee to issue a statement that "the Chinese and other competitor nations are [reaching] military parity with the United States; in some cases, as in this one, they appear to be leaping ahead of us."

The congressmen—including outgoing HASC Chairman Howard P. "Buck" McKeon (R-Calif.)—said the US deficiency in R&D is inviting trouble. The Asia-Pacific region is "a powder keg," they said, and allowing other "nations that do not share our respect for free and open avenues of commerce to gain a strategic advantage over the United States and her allies only brings us closer to lighting the fuse."

Kendall explained that although the Pentagon tends to view R&D as a variable cost, it's not. Usually R&D is funded relative to force structure, but it has nothing to do with the size of the force.

"It doesn't matter how many tanks you buy; if you want a new tank every 20 years, you have to do the R&D, ... period," Kendall said. "So it's not a variable cost, but we have a tendency to treat it like [one]—and cut it more."

A third consideration is the simple math of time, he said.

"Time is not a recoverable asset," Kendall explained. "And R&D really buys you time. We are in something of a race for technological superiority over time, and if you give that up, you do not get it back." He said that while he can buy back readiness or force structure—if the funds are appropriated—"I have no way to buy back time, ... and that timeline is relatively long." He said it takes about two years to set a requirement and create a budget for it, then two to four years of risk reduction, "then we have five to six years of development, ... into production, and then we have a few years of building up numbers to be of significance."

Just a week later, Kendall told attendees at an American Institute of Aeronautics and Astronautics conference that failing to create new systems to replace worn-out or obsolescent ones will create a "hollow force," just as surely as failing to provide spare parts or ammunition.

Wesley G. Bush, CEO of Northrop Grumman, told the CNAS gathering that the whole US technological "ecosystem"—beginning with grade-school education in science, technology, education, and mathematics up to the aerospace industry writ large—is at grave risk because of the budget cuts.

"This innovation ecosystem needs everyone—not just scientists but those who build, sell, and service products," he said. However, graduates in STEM are "recruited around the globe" and might not contribute to US advancement.

"There's no guarantee that those whom we educate will contribute to America's innovation, especially if they observe declining R&D budgets here and rising budgets elsewhere," Bush said. Other countries are patterning their innovation ecosystems on that of the US and are succeeding well with the model, he added.

"We need to think about R&D as a strategic asset for our nation, not a cost. If you think about it as a cost, you think about cutting it. ... I think we're making a profound mistake by cutting R&D." Bush said that while there "absolutely" are ways to make the defense budget more efficient, "I think we have taken these cuts far beyond what can be recovered from efficiencies." He also suggested that budget-cutting alone will not solve the nation's economic and fiscal woes.

"We have to invest in R&D to drive long-term growth," he said. Gutting it "reduces our future growth potential."

LEGACY OF THE A-12

After an exhausting 23-year legal battle, the Navy and its contractors on the A-12 attack airplane—canceled by then-Defense Secretary Dick Cheney on the eve of the first Gulf War in 1991—finally settled their claims and counterclaims in January. The contractors will pay the Navy \$400 million worth of goods and services, and the Navy pays nothing in return, except giving up the fight to get more.

The litigation—in which each side won rounds in a series of five trials and three appeals that at one point reached the Supreme Court—has provided one valuable by-product, even if it never yielded a working combat aircraft. That by-product was an object lesson in how not to structure major Pentagon contracts—the lesson that you can't invent technology at a fixed

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price. That wisdom, won at a cost of billions, is now enshrined in Pentagon acquisition rules.

The A-12 was conceived in the 1980s, when the Navy wanted a stealth combat jet of its own. The Air Force had already fielded the top-secret F-117 and was working on the B-2 bomber. It was the heyday of the so-called “Reagan Buildup,” when a huge amount of money was being thrown at defense to turn around the “hollow force” that resulted from the post-Vietnam drawdown.

In a joint arrangement, the Navy would develop the A-12 as a replacement for the A-6 Intruder carrier-based medium bomber, while the Air Force would buy the resulting airplane as a replacement for its F-111 interdiction bomber.

Pentagon acquisition officials at the time were big on fixed-price contracts, believing that companies should be held accountable to accurately predict the cost of developing new technology. Even if the estimates were off, Pentagon leaders believed their vendors could “get well” financially with big production contracts later, even if they lost their shirts in development.

Northrop and Grumman, then separate companies, opted not to bid on the A-12 because they believed the fixed-price contract was unworkable. There were sure to be overages, especially since the Navy continued to add features and requirements, and as stealth technology, then still in its operational infancy, evolved. General Dynamics and McDonnell Douglas were more optimistic, and they won the contract to build what came to be known unofficially as the “Dorito” for its triangular, flying-wing shape.

The project went downhill fast, however, and both the Navy and the contractor team each started keeping two sets of books: one that documented how the program was really doing and another they used in discussions with each other. The contractors told the Navy the A-12 was on time and schedule; the Navy pretended to believe it. It was the contract that was to blame: If the companies admitted problems, they could be on the hook for billions in overruns. The Navy, meanwhile, feared that if it acknowledged the problems, it would in effect accept a change in the contract to cost-plus, and the service would be liable for the mounting overages.

The Navy told the fiction of the A-12’s success to Cheney, who in turn repeated it to Congress in his “Major Aircraft Review.” By mid-1990, however, the real story began to leak to the press: The jet was at least two years behind schedule, one-third overweight, and billions over budget. Cheney ordered

an inspector general investigation and, shortly after receiving it, canceled the A-12 himself.

The lawsuits began almost at once. The contractors argued the A-12 had been canceled for the convenience of the government and wanted cancellation fees. The Navy argued that the contractors had failed to deliver anything but a half-built mock-up for the \$1.2 billion in progress payments. The service wanted the money back.

The legal battle went on more than two decades. General Dynamics sold its aircraft business to Lockheed in 1993, but kept its standing in the lawsuit, believing it to be a moneymaker. Boeing inherited its share of the lawsuit in 1997, when it bought McDonnell Douglas.

The sting of the A-12 fiasco has left a lasting soreness at the Defense Department. Pentagon ATL chief Kendall last fall released a second comprehensive review of how the Pentagon buys things. Called “Better Buying Power 2.0,” it clarifies guidance offered by his predecessor, Ashton B. Carter, who had championed a return to fixed price contracting.

“There was a lot of overreaction” to Carter’s message to the acquisition troops that fixed price was back in vogue, Kendall said at an industry conference last year. “People started thinking that was what they should use all the time—and use it for everything,” he said. Now, however, the latest acquisition rules—the “5000 series” of regulations—explain that fixed price should only be used in certain circumstances. The idea is that fixed price works best when the item to be bought is well-understood, and the government is prepared to restrain itself from making changes that disrupt the production plan and add time and cost. It should not be used when developing a radically new technology, when it simply isn’t known what obstacles may be encountered and how to work through them.

The F-35 and the KC-46 tanker, two of USAF’s top three acquisition priorities, are benefitting from the new wisdom. The F-35 is now at a point where the scope of the hardware and software, though still in the works, are reasonably in hand, and Lockheed Martin has offered to sell the jets to the Pentagon for a fixed price over several production lots. The KC-46 is being developed at a fixed price only because the work is clearly spelled out and understood by both parties and because the government has pledged not to change its requirements. The Secretary of the Air Force alone is authorized to alter them.

The Air Force has so far not stated how it will buy its third priority—the classified Long-Range Strike Bomber—but the service leaders describe the program using buzzwords and catchphrases, such as “integration, not invention” and “cost as an independent variable.” ■

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MOH Process Updated

The 2014 National Defense Authorization Act changed the review process for awarding the nation's highest military honor for valor in combat.

Specifically, it lifted a long-standing restriction preventing service members from earning multiple Medals of Honor, even if several awards are merited.

All military services now have three years from the combat action to recommend an individual for the MOH and five years from the date of the action to present the honor, according to the NDAA.

Time limits previously varied among the services, leading some in Congress to question the MOH review process for the wars in Iraq and Afghanistan. The bill also approved a waiver to this rule, authorizing the MOH be awarded to Civil War-era 1st Lt. Alonzo H. Cushing, who as commander of Battery A, 4th United States Artillery, gallantly fought to his death at Cemetery Ridge on the third day of the Battle of Gettysburg on July 3, 1863.

Raymond Now at 14th Air Force

Lt. Gen. John W. "Jay" Raymond took command of 14th Air Force (Air Forces Strategic) at Vandenberg AFB, Calif., from Lt. Gen. Susan J. Helms in January.

Raymond pinned on his third star just prior to taking charge of the numbered air force to lead Air Force's space forces.

He previously served as US Strategic Command's director of plans and policy, a position he held from July 2012. Helms had led 14th Air Force since January 2011 and officially retires April 1, after nearly 34 years in uniform.

Sen. Claire McCaskill (D-Mo.) blocked Helms' nomination to be Air Force Space Command's vice commander because the legislator objected to Helms having overturned a sexual assault conviction.

"She's been caught in the middle of an intense political battle," said Gen. William L. Shelton, AFSPC boss, about Helms during the ceremony. "I can't tell you how proud I am, personally,

of her courage, her composure under extreme stress, and she's handled it all with style and grace that I can only wish to duplicate," he said.

screenshot



By the Numbers

Number of times the following countries were mentioned in President Obama's State of the Union address:

Iran 10

Afghanistan 6

Syria 3

PACAF Reports on Deadly HH-60 Crash

A steep low-altitude maneuver to avoid a collision caused the crash of an HH-60 Pave Hawk northeast of Kadena AB, Japan, last August, accident investigators stated.

Two HH-60s were flying a pattern to cover pararescue personnel inserted at a training range on Aug. 5, 2013. When the copilot reversed the flight's figure-eight pattern to correct the aircraft's track, he crossed ahead of the trailing helicopter. The mishap pilot took control and "based upon his perception of a potential for a midair collision ... maneuvered [the mishap aircraft] at low altitude in a manner that resulted in excessive altitude loss," which the pilot could not recover from, lead investigator Brig. Gen. Steven L. Basham said in the report.

The pilot applied additional power attempting to avoid hitting the ground and was able to level and slow the aircraft before impact, according to the report. The flight engineer, TSgt. Mark A. Smith, died. Three other crew members were injured. The pilot's inexperience flying lead position also was cited as a factor in the accident. The Pave Hawk's loss was tallied at more than \$38 million.

Combat F-22s at Tyndall

The first five combat-coded F-22 Raptors transferring from Holloman AFB, N.M., to Tyndall AFB, Fla., landed at their new home on Jan. 6.

"The 95th Fighter Squadron showing up represents a new era," said 325th Fighter Wing Commander Col. David



02.06.2014

Airmen with the 455th Expeditionary Aircraft Maintenance Squadron work on the engine of a C-130J as snow falls at Bagram Airfield, Afghanistan. For most airmen, this will be the last winter they spend in Afghanistan. The final draw-down of US troops there is expected to begin in April, after the country holds its presidential election.

USAF photo by SrA. Kayla Newman

E. Graff. "No combat aviation unit has ever deployed out of Tyndall. ... Now we will have the largest collection of F-22s in the world and will stand ready to project airpower and defend our nation's freedom."

Tyndall is expected to receive 24 Raptors—several each month, with the last jets arriving in April, according to a base release.

"Unfortunately, we had a delay of a year, but today we were able to successfully bring in the first wave of aircraft," said 95th Fighter Squadron Commander Lt. Col. Erick Gilbert.

The transition is expected to add nearly 1,100 uniformed personnel to Tyndall, he noted.

Special Op Air Warfare Center Commander Fired

Brig. Gen. Jon A. Weeks was removed from command of Air Force Special Operations Command's Air Warfare Center at Hurlburt Field, Fla., on Jan. 9, AFSOC officials announced. AFSOC boss Lt. Gen. Eric E. Fiel relieved Weeks, citing a "loss of trust and confidence in his leadership" based on an alleged inappropriate relationship, according to a news release.

"This was not an easy decision, but I believe it is in the best interest of the men and women of AFSAOAWC," said Fiel. The center "will continue to train and equip our air commandos to effectively conduct special operations missions around the globe," he added.

AFSAOAWC Vice Commander Col. Royce Lott was tasked to serve as interim commander until Col. David Tabor was able to take command this spring, stated the release.

Weeks was reassigned as mobilization assistant to AFSAOAWC's director of operations, pending the outcome of an inspector general investigation.

F-35 Spy

A federal grand jury in Connecticut indicted former Pratt & Whitney employee Mozaffar Khazaee on Jan. 21 for attempting to pass F-35 fighter data to Iran.

Khazaee faces two counts of interstate transport of stolen property for attempting to ship sensitive materials about the F-35 strike fighter program to contacts abroad.

Khazaee, a 59-year-old dual Iranian and US citizen, worked as an engineer performing strength tests on P&W's engines before he was laid off last August during a restructuring by the company, according to local press reports.

He subsequently crated off documents, schematics, technical manuals, and other sensitive information related to the F-35 and sent them to California for onward shipment to Iran. Federal Customs and Border Protection agents intercepted the package and Khazaee was arrested at Newark Arpt., N.J., attempting to flee to Germany, where he planned to catch a connecting flight to Tehran on Jan. 9.

Pratt & Whitney spokesman Ray Hernandez told *Air Force Magazine* the company "will support the government's investigation in any way necessary," noting P&W is just one of three companies identified in the criminal complaint.

"Protecting sensitive technical data is one of our highest priorities," said Hernandez.

The US Air Force Office of Special Investigations is investigating the case along with the FBI and CBP. If convicted, Khazaee faces a maximum of 10 years in prison on each charge.

Weeks is a Reservist who has been serving on Active Duty since February 2013, the release said.

Double JASSM Contracts

The Air Force awarded Lockheed Martin two production contracts worth up to \$449 million for Lots 11 and 12 of the Joint Air-to-Surface Standoff Missile and its extended range variant.

The contract includes production of 340 baseline missiles and 100 JASSM-ERs, as well as systems engineering, logistics support, tooling, and test equipment, stated the company's Jan. 9 press release.

"These contracts bring the total number of JASSM cruise missiles on contract to over 2,100 and underscore the US Air Force's and Lockheed Martin's commitment to the program," said Jason Denney, program director of Long-range Strike Systems at Lockheed.

The contract award follows a \$34 million foreign military sales contract to integrate JASSM on to Finland's F-18C/D aircraft.

Air Force B-2, B-52, F-15Es, and F-16s can all carry JASSM. The B-1B is capable of carrying both JASSM and the JASSM-ER.

Free To Good Home

All 14 former Air Force C-27J Spartans left in storage at Davis-Monthan AFB, Ariz., will join the Coast Guard, said manufacturer Alenia.

Congress approved the intraservice transfer deal of the former Air National Guard Spartans in the 2014 defense authorization bill, signed by President Obama late last year.

"The C-27J will provide the USCG with greater range, endurance, speed, and payload capacity than other twin turboprops in its inventory, and the capability to perform both medium- and long-range missions," said Alenia North America President and CEO Benjamin Stone.

The aircraft will enter service in the maritime patrol, counternarcotics, and search roles sometime this year, and all 14 aircraft eventually will be upgraded with search radar and specialized mission sensors.

Seven of the 21 divested airframes had already been assigned to US Special Operations Command. In exchange for the new aircraft, USCG will transfer seven of its legacy HC-130s to the US Forest Service for conversion into fire-fighting tankers.

First Foreign Ospreys

The Defense Department alerted Congress Jan. 13 of a possible \$1.1 billion foreign military sale of six V-22 Osprey tilt-rotors to Israel, the Defense Security Cooperation Agency announced.

"The proposed sale of V-22B aircraft will enhance and increase the Israel Defense Forces' search and rescue and special operations capabilities," stated DSCA's release. "The United States is committed to the security of Israel, and it is vital to US national interests to assist Israel to develop and maintain a strong and ready self-defense capability."

Defense Secretary Chuck Hagel first announced the FMS on a visit to Israel last April as part of a larger arms package, including aerial tankers, F-16 upgrades, and radar-seeking missiles.

The proposed sale would include spare engines, full countermeasure and self-defensive suites, advanced communications equipment, night vision capability, training, and support, according to DSCA.

Decade Over the Baltic

Four F-15Cs from RAF Lakenheath, Britain, marked a



Salute to a Nine-Foot-Tall Hero: *F-15E weapon systems officer Capt. Philip Gunn participates in a missing man formation over Arlington National Cemetery Jan. 23, for the interment of retired Brig. Gen. Robinson Risner, who died in October. Risner became an ace in the Korean War and was a POW for more than seven years during the Vietnam War. He organized a church service as a POW. As his captors led him away for punishment afterward, the other POWs sang "The Star-Spangled Banner." After his release, he said their support made him feel nine feet tall.*

decade of NATO's Baltic air policing mission in Lithuania, taking over from Belgian F-16s at the beginning of January.

"The execution of this mission by different allies to an exacting level of performance ... highlights the importance of bringing together personnel of the highest caliber," said US Air Forces in Europe-Air Forces Africa Commander Gen. Frank Gorenc, marking the anniversary Jan. 3.

Since Russian aircraft routinely enter Baltic airspace unannounced and the three NATO members in the Baltics—Estonia, Latvia, and Lithuania—lack air defense assets of their own, fighters from 14 allied air forces deploy on roughly four-month alert rotations to Šiauliai AB, Lithuania.

The Lakenheath F-15s chalked up USAFE-AFAFRICA's fourth rotation, supported by more than 150 support personnel.

Belgium, the Czech Republic, Denmark, France, Germany, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Turkey, UK, and US have contributed to a combined 34 rotations to Šiauliai since the mission began in 2004.

Italy and Hungary pledged recently to contribute aircraft on future rotations.

Zombie Eagle

A flight-control system failure caused the F-15C crash during an air-to-air training flight near Kadena AB, Japan, on May 28, 2013, Pacific Air Forces investigators determined.

The 44th Fighter Squadron aircraft had completed a two-ship scenario and was returning to base when the pilot reported the aircraft stopped responding to control inputs,

according to the report. The F-15 entered a descending left-hand corkscrew, from which the pilot was unable to recover, despite attempts to isolate the fault, forcing him to successfully eject at 4,500 feet.

The accident investigation board conclusively found the mishap was caused by the aircraft's failure to respond to the pilot's flight-control inputs due to a failure in the aircraft's hydro-mechanical flight-control system, according to the AIB report.

Investigators said that a lack of simulator training on this type of malfunction and limited time for the pilot to troubleshoot contributed to the accident.

The F-15's loss was estimated at \$32 million, according to PACAF.

Report on MQ-1 Crash

Turbocharger failure and gusty winds on landing caused the crash of an MQ-1 remotely piloted aircraft at Jalalabad AB, Afghanistan, last summer, Air Combat Command investigators determined.

The Predator was flying a classified surveillance mission from Jalalabad on June 27, 2013, when operators noticed indications of a possible failure that could cause the aircraft to lose altitude. The crew turned the RPA around, but during final approach, a strong gust of wind caught the aircraft, according to the results of ACC's abbreviated accident investigation. The pilot attempted a go-around, but the aircraft crashed some 800 feet from the end of the runway.

The MQ-1 and its Hellfire air-to-ground missile were destroyed on impact, resulting in an estimated \$4.5 million loss, according to ACC.

The MQ-1 was deployed to Jalalabad from Creech AFB, Nev.

Broken Bombers, Filled Silos

The Air Force began eliminating 50 Minuteman III ICBM silos and five launch alert facilities associated with the now-inactive 564th Missile Squadron at Malmstrom AFB, Mont., base officials stated.

The United States is getting rid of this infrastructure so that the silos no longer count as launchers for strategic nuclear warheads under the inventory limits imposed by the New START agreement with Russia.

Construction contractors will fill all 50 silos with earth and gravel and should be finished by 2015, according to Malmstrom's release.

The US is eliminating 103 silos and 10 missile alert facilities to meet New START's limits on warheads and launchers.

In August, the Air Force began demolishing 50 inactivated Peacekeeper ICBM silos and five launch alert facilities at F. E. Warren AFB, Wyo. That demolition is scheduled for completion in December.

The service is also eliminating three silos at Vandenberg AFB, Calif. Late last year the Air Force cut up the last of its retired B-52G bombers as part of the New START drawdown.

Luke's First F-35 Jock

Capt. Joshua Arki, who was selected as the first F-16 pilot to transition to F-35s at Luke AFB, Ariz., recently began conversion training at Eglin AFB, Fla.

"Captain Arki has a lot riding on his shoulders," said 62nd Fighter Squadron Commander Lt. Col. Shamsher Mann, in Luke's Jan. 17 news release. "On those shoulders rests the

Fly the Flag Again: A1C Travis Beckwich inspects an F-15 at Nellis AFB, Nev., before a sortie for Red Flag 14-1 in late January. Last year, two Red Flag exercises were canceled due to budget cuts forced by sequestration. Red Flag is the Air Force's premier air-to-air combat training exercise. Allied air crews from UK and Australia joined American airmen in Red Flag 14-1. It featured simulated battle scenarios over the Nevada Test and Training Range.

initial trajectory of the combat training effectiveness of the F-35 when it arrives at Luke."

Arki is currently the 61st FS chief of weapons and tactics and a former F-16 instructor. "I'm learning a lot from the

Amicable Divorce

The Air Force's first association between a Reserve and Air National Guard unit is no more.

The Guard's 107th Airlift Wing and the Reserve's 914th Airlift Wing joined forces as a result of the 2005 BRAC decision, jointly flying and maintaining 12 aircraft at Niagara Falls Arpt./ARS, N.Y.

"We figured it out and went through all those battles; now we're pulling it apart," said Col. John J. Higgins, 107th AW commander. Though Higgins said "in a perfect world" he would have liked to have maintained the association for a few more years, he acknowledged he was excited for the wing to take on its new mission, flying remotely piloted aircraft.

"In the long term, this change will benefit the 107th [AW]," said Higgins. "We are moving into a newer mission. The 107th has converted missions every five years, it seems, and the RPA mission will stick with us for awhile."

Although the partnership officially dissolved on Dec. 31, the two organizations signed an agreement allowing the Guardsmen to continue assisting the 914th AW on a limited basis through Dec. 31, 2014, according to a unit news release in January.

Eventually the 107th AW will lose 221 personnel and be downgraded from a wing to a group, said Higgins.

USAF photo by A1C Jason Couillard



The War on Terrorism

Operation Enduring Freedom

Casualties

By Feb. 11, a total of 2,306 Americans had died in Operation Enduring Freedom. The total includes 2,303 troops and three Department of Defense civilians. Of these deaths, 1,803 were killed in action with the enemy while 496 died in noncombat incidents.

There have been 19,639 troops wounded in action during OEF.

MC-12 Crash Claims Three Lives

An Army MC-12 variant crashed in eastern Afghanistan on Jan. 10, killing two coalition servicemen and one NATO civilian, International Security Assistance Force officials stated.

ABC News identified all three personnel as Americans, though ISAF's official casualty report kept the nationalities confidential.

"The incident is under investigation and it would be inappropriate to comment further until the investigation is complete," ISAF spokesman Lt. Col. William Griffin said.

Four airmen were killed in a separate MC-12 crash in Afghanistan last April.

Adios, Pedro

HH-60G rescue helicopters stood on alert at Camp Bastion, Afghanistan, for the last time on New Year's Eve.

Aircrew and pararescuemen of the 26th Expeditionary Rescue Squadron saved more than 2,400 US and coalition lives since beginning around-the-clock casualty evacuation alert at Bastion in early 2009, according to a news release.

"The airmen of the 26th ERQS, along with Guardian Angel teams, have accomplished some remarkably brave missions in support of the joint and coalition force," said squadron boss Maj. Adams Darling. "I am humbled to have had the chance to command these warriors."

The squadron inactivated on Jan. 1, passing its alert

responsibilities to Army UH-60 Black Hawk and Royal Air Force CH-47 Chinook rescue crews.

The 83rd ERQS at Bagram Airfield, Afghanistan, is now the Air Force's sole combat rescue unit in the theater, according to officials.

Making the Bluegrass State Proud

Eight Kentucky Air National Guardsmen were awarded decorations, including a Distinguished Flying Cross and two Bronze Star Medals with Valor Devices for gallantry in Afghanistan.

Capt. Nathan Tingle, a combat rescue officer assigned to the wing's 123rd Special Tactics Squadron, received the DFC for his "extraordinary achievement" in Afghanistan, during the ceremony at Louisville, Arpt./AGS, Ky.

On May 26, 2011, Tingle led a CRO team on a "harrowing rescue mission" in the Shorbak district of Kandahar province. Despite poor visibility and mountainous terrain, he formed a plan to extract, over a still-active minefield, one critically wounded soldier, two isolated soldiers, and 10 killed in action.

Also honored was TSgt. Jeff Kinlaw, a combat controller, who received the Bronze Star Medal with Valor Device for his heroic actions in the Nuristan province of Afghanistan in 2012. On April 12 that year, Kinlaw, who was serving as the primary joint terminal attack controller for a US Special Forces team, helped battle Taliban fighters for 14 hours, repeatedly placing himself in plain sight of the enemy to protect his teammates.

TSgt. Robert Bonello, another combat controller awarded the Bronze Star Medal with Valor Device, was honored for heroic actions in Afghanistan's Faryab province in 2012. Bonello served as the primary JTAC with an Army Special Forces team, conducting a time-sensitive air assault mission while in direct contact with enemy forces, according to the wing's news release.

Eglin instructors and hope to bring back to Luke many of their lessons learned," said Arki.

He was slated to complete his training at Eglin in March and begin "defining new tactics for a new fighter while building the initial crop of F-35 pilots for the Air Force" back at Luke, according to Mann.

The first of Luke's eventual 144 F-35As are due to arrive early this year, according to the base.

Index to Advertisers

ANG.....	5
General Automotives.....	3
Lockheed Martin.....	Cover II
Northrop Grumman.....	Cover IV
Pilatus.....	9
USAA.....	Cover III
<hr/>	
AFA Member Benefits Guide.....	37-40
AFA Upcoming Events.....	11
AFA Health Benefits.....	74
AFA Resume Service.....	73
Air Force Cycling Classic.....	72
Air Force Magazine Online.....	67
Airpower Classics Book.....	69
Airpower Industry Guide.....	61

Inaugural Iceland Air Meet

In February, US and NATO allies flew their first Icelandic air-defense training exercise over the island with alliance partners Finland and Sweden.

"This is a further step forward in NATO's excellent cooperation with Finland and Sweden," said NATO Secretary General Anders Fogh Rasmussen in an alliance press release.

During the exercise, dubbed Iceland Air Meet 2014, Norwegian, Finnish, and Swedish fighters were supported by US and Dutch tankers as well as NATO E-3A AWACS aircraft, according to the Feb. 3 release. Iceland provided local search and rescue capabilities. The event wrapped up Feb. 21.

"Thanks to this training event, our pilots, ground crews, and fighter controllers will be better trained, more experienced, and better able to deploy and operate together, if needed," said Rasmussen.

Norwegian fighters were already rotationally deployed to Iceland protecting the island's airspace under a separate NATO mission.

Going Local

The Connecticut Air National Guard's 103rd Airlift Wing launched its first locally generated C-130H sortie with the recently assigned airlifters, officials announced early this year.

Senior Staff Changes

RETIREMENT: Maj. Gen. Stephen D. **Schmidt**.

NOMINATIONS: To be Brigadier General: Paul W. **Tibbets IV**. **To be Major General:** Jay B. **Silveria**.

CHANGES: Maj. Gen. John B. **Cooper**, from Dir., Log., DCS, Log., Instl., & Mission Spt., USAF, Pentagon, to Dir., Log., ACC, JB Langley-Eustis, Va. ... Brig. Gen. Kathryn J. **Johnson**, Dir., Sys. Integration, DCS, Log., Instl., & Mission Spt., USAF, Pentagon, to Dir., Log., DCS, Log., Instl., & Mission Spt., USAF, Pentagon ... Brig. Gen. Michael D. **Rothstein**, from Cmdr., 56th FW, AETC, Luke AFB, Ariz., to Cmdr., 438th AEW, ACC, Kabul, Afghanistan ... Maj. Gen. (sel.) Jay B. **Silveria**, from Vice Cmdr., 14th AF, Air Forces Strat., AFSPC, Vandenberg AFB, Calif., to Cmdr., USAF Warfare Center, ACC, Nellis AFB, Nev.

SENIOR EXECUTIVE SERVICE CHANGES: Gregg D. **Costabile**, to Dir., Engineering & Tech. Mgmt., F-35 Lightning II Jt. Program Office, AF Life Cycle Mgmt. Center, AFMC, Arlington, Va. ... Thomas A. **Lockhart**, to Dir., Materials & Manufacturing, AF Research Lab., AFMC, Wright-Patterson AFB, Ohio ... Daniel F. **McMillin**, to Auditor General of the Air Force, OSAF, Pentagon ... Joseph M. **Oder**, to Exec. Dir., AF Nuclear Weapons Center, AFMC, Kirtland AFB, N.M. ... Robert E. **Tarleton**, to Dir., Mil. Satellite Comm. Sys. Directorate, SMC, AFSPC, Los Angeles AFB, Calif.

A local aircrew, augmented by New York Air Guardsmen and other airmen, took off from the wing's home at Bradley Airport on the historic mission. "It was very exciting to be a part of the first local launch," said SMSgt. Bill Westling, a flight engineer assigned to Bradley's 118th Airlift Squadron. "From the preflight to takeoff without any hiccups is a testament to the team effort from maintenance and ops," he said.

The wing received the first of eight C-130Hs last October and was still building up to a full complement of aircraft and airmen at the time of maiden sortie from East Granby on Dec. 19, 2013.

The wing formerly operated Learjet C-21A executive aircraft.

Smart Belly BUFF

Weapon-bay modifications recently got underway to nearly double the B-52's guided weapon capacity, enabling internal carriage of JDAM, JASSM, Miniature Air Launched Decoy, and MALD Jammer.

"With this modification, we're converting the bomb bay from dropping just gravity-type bombs to releasing precision guided weapons," Boeing spokeswoman Jennifer Hogan said in an Air Force news release. "When you combine that ability with the B-52's unlimited range with air refueling, you have an efficient and versatile weapon system that is valuable to warfighters," said Boeing's B-52 Program Director Scot Oathout.

Boeing will modify existing rotary launchers to carry as many as two dozen 500-pound or 20 2,000-pound JDAMs internally instead of on the wing pylons. Three prototype launchers will be tested with the intention of fielding an initial capability in March 2016, according to USAF.

Work on the \$24.6 million contract is assigned to Oklahoma City Air Logistics Complex at Tinker AFB, Okla.

Pandora's Boxing Match

An MQ-9 Reaper remotely piloted aircraft equipped with the Pandora electronic warfare suite aided in attacking simulated air defenses during a demonstration at MCAS Yuma, Ariz., Northrop Grumman announced.

The MQ-9 worked in tandem with Marine Corps EA-6B Prowler electronic warfare aircraft to carry out a "multinode" attack capable of taking down more advanced air defense networks, stated a news release Jan. 22.

"We demonstrated operational concepts using a layered approach to electronic warfare," explained Brig. Gen. Matthew G. Glavy, Marine Corps assistant deputy aviation commandant. "By conducting multiple events with a networked, pod-based jamming system, we were able to evaluate the viability of [unmanned aerial vehicles] to conduct electronic warfare missions ... in support of tactical strike aircraft," said Glavy.

A Reaper flew a similar exercise last April, but the October trial—only announced in January—marked the first time it flew as part of a larger electronic strike package, the company said.

Lancer Makeover

Boeing delivered the first B-1 bomber upgraded with the Integrated Battle Station to the Air Force in late January.

According to Boeing, the modification "essentially turns the B-1 into a new aircraft with the addition of the full color displays, moving maps, and a new diagnostics system." The upgrade is the "most extensive" in "B-1 history" and substantially improves crews' situational awareness, while providing "faster and more secure communication capabilities," stated the Jan. 22 release.

The first fully upgraded aircraft was delivered to Dyess AFB, Tex., on Jan 21, Boeing officials said.

Who's Left at Holloman?

The 4th Space Control Squadron, located at Holloman AFB, N.M., will move to Peterson AFB, Colo., this year, where it will be collocated with the 76th Space Control Squadron there.

The move is a result of force structure changes affecting Holloman, which is losing its F-22 mission to Tyndall AFB, Fla., in exchange for an F-16 training mission. The new mission is expected to bring 56 Falcons to the New Mexico base by October 2015. Holloman already hosts the Air Force's remotely piloted aircraft formal training unit.

The move will help "realize efficiencies between [the 4th SPCS and the 76th SPCS] units, create more effective mission training, increase availability of deployable forces, and reduce the training and sustainment burden for Air Force Space Command and the Space and Missile Systems Center," stated a press release.

Net results of the shift will be that Holloman will gain some 300 personnel, and according to the base release, about 90 Active Duty personnel will be affected by the Peterson move.

Quicker Help for Iraq

The Defense Department will speed delivery of combat aircraft, air-to-ground missiles, and other key military aid to Iraq in an effort to help government forces in an escalating fight against al Qaeda-affiliated groups and tribal militias.

DOD is committed to supporting Iraq's fight against resurgent terrorist groups in Anbar province, but the US will not send military personnel back to Iraq, officials stressed.

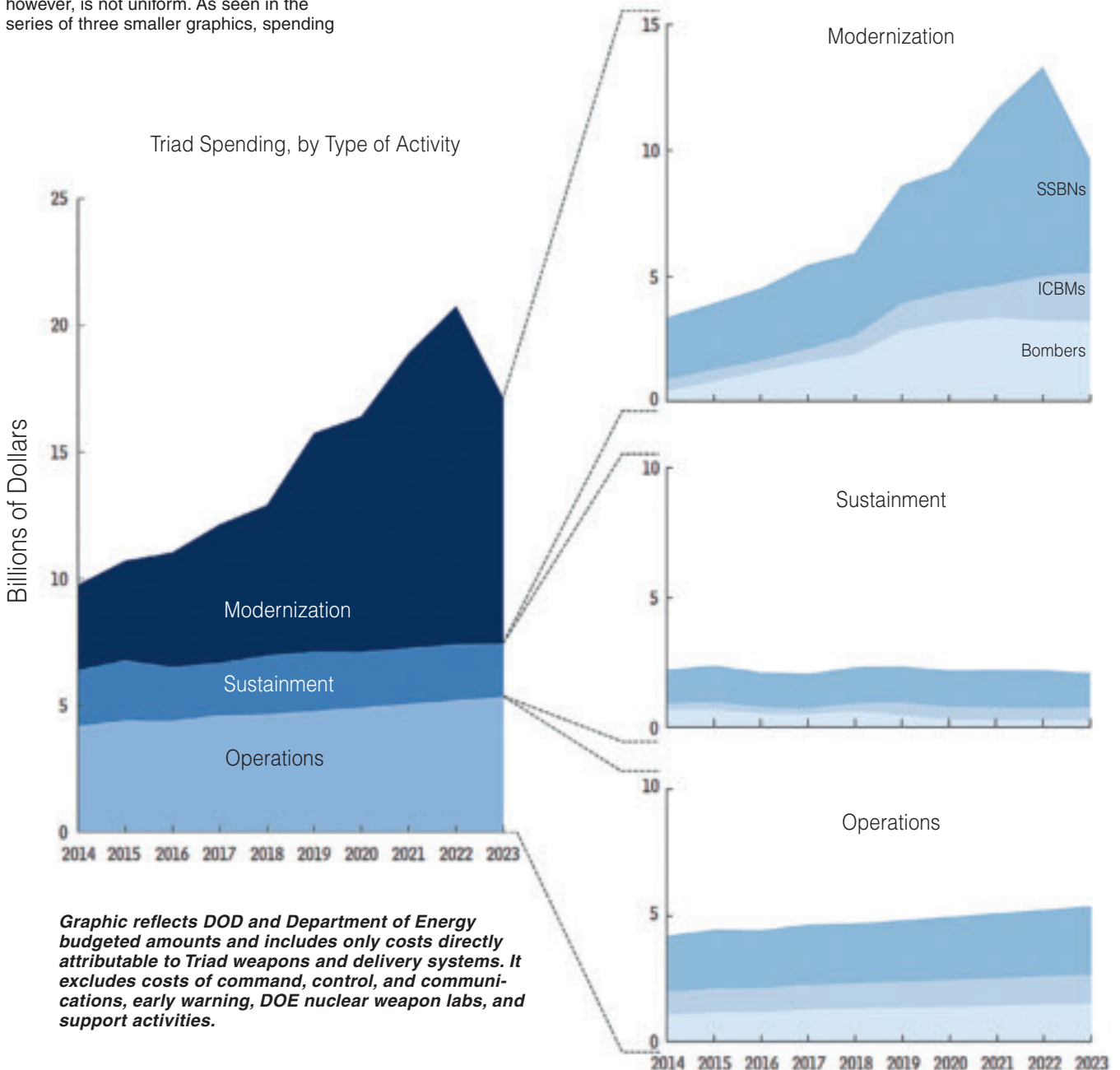
The US is sending an additional 100 Hellfire missiles this spring and already delivered six C-130s and 27 helicopters to Iraq last year, said Pentagon spokesman Army Col. Steve Warren.

Hellfires have already been effective at targeting al Qaeda operatives in Anbar, said Warren. The US also plans to expedite delivery of 10 ScanEagle remotely piloted aircraft this spring, as well as an additional 48 Raven RPAs to aid battlefield intelligence gathering.

Boomer Budget Bust

The Congressional Budget Office recently projected the costs, over the next decade, of modernizing, operating, and sustaining the US strategic “triad”—nuclear-weapon-capable bombers, ICBMs, and submarines. As the large graphic shows, CBO expects costs to double, rising from \$9.8 billion this year to \$20.8 in 2022. The increase, however, is not uniform. As seen in the series of three smaller graphics, spending

on sustainment and operations remains flat. The big growth comes in modernization, with the Navy’s SSBNs and submarine-launched ballistic missiles consuming as many Pentagon dollars as the Air Force’s ICBMs and bombers combined. Total expenditure on the undersea “boomers” over 10 years: \$82 billion.



Source: "Projected Costs of US Nuclear Forces, 2014 to 2023." Congressional Budget Office, December 2013, Washington, D.C. Based on Department of Defense and Department of Energy data.

Air Mobility Command has arguably the newest and most modernized elements of the Air Force. It recently took delivery of its last factory-fresh C-17 Globemaster III and declared initial operational capability with the re-engined and refurbished C-5M Super Galaxy. New C-130J Super Hercules tactical transports continue to join the fleet. And although AMC's KC-135 Stratotanker aerial refuelers are ancient, the KC-46A program to replace them is well underway, with flight tests about to start. Collectively, the future air mobility force—the one AMC will work with for the next 20 years or so—is well-established.

All that said, however, AMC is looking beyond the current fleet and trying to decide how it must shape itself for the future, as severe financial pressures shrink the Air Force overall and change the operating concepts for the Army and Marine Corps that AMC must move to battle. It may be that, on the cusp of obtaining the future

force it has long labored to achieve, AMC must reinvent itself yet again.

The Mobility Capabilities and Requirements Study (MCRS) 2016, “the one against which we measure our lift capacity,” is now almost three years old, said Gen. Paul J. Selva, AMC commander. It “envisioned a force and a set of [operational] plans that are now necessarily overcome” by the budget squeeze facing the US military “and the available force structure to execute those plans,” he said. A follow-on Mobility Capabilities Assessment that simply “inventories all the available lift and compares it to anticipated war plans,” likewise, was done before the sequester crisis drove the services to propose even steeper cuts to force structure. As a result, events have overtaken it, too.

“What we will have to do now is look at what we believe force structure is going to look like in [Fiscal 2018], compare that ... to war plans” developed by combatant commanders, and decide what airlift

forces are needed “to make the COCOMs successful,” said Selva.

AMC is proposing the new study, dubbed MCRS 2018, in the Fiscal 2015 budget the Defense Department is now presenting to Congress. “The realities of what’s going to be available in terms of the combat force structure are changing,” said Selva. “It’s going to put a differing demand signal on the whole strategic lift inventory and how we use it.”

In budget negotiations last fall, Eric Fanning, then acting Secretary of the Air Force, said it was the Army that argued for a greater strategic airlift fleet in the Air Force. Fanning said Army Chief of Staff Gen. Raymond T. Odierno insisted a smaller Army would require greater mobility, not less, to be flexible enough to get where it’s needed quickly.

C-17s Bearing Up Well

The strategic airlift fleet is in good shape, said Selva. Although some C-17s

The Once and Future Mobility Force

By John A. Tirpak, Executive Editor



USAF photo by A1C Trevor Rhynes

The mobility rules may change just as AMC fields the force it needs.



Left: Army paratroopers climb into the belly of a C-130J at Ramstein AB, Germany. New C-130J tactical transports continue to join the fleet even as AMC reshapes itself for the future. Here: A C-17 lands while a C-130J taxis at Nellis AFB, Nev. USAF recently took delivery of the fleet's last C-17.

USAF photo by A1C Stephanie Rubi

are 20 years old, many are “pretty much brand-spanking new,” he said. Boeing delivered the Air Force’s last C-17 in September 2013, and C-17s are expected to serve into the 2040s.

Although some individual C-17s saw exceptionally hard use in Iraq and Afghanistan, AMC tries to swap aircraft in and out of demanding missions so that the hours accrued per aircraft stay relatively balanced across the C-17 fleet, said Lt. Col. Mike Stohler, Aircraft Maintenance Branch chief at AMC headquarters at Scott AFB, Ill.

AMC officials “rotate those tails in and out of bases between our [Air National] Guard and [Air Force] Reserve and Active Duty components,” he said. “Some aircraft do ... incur some extra work, but we do our best to manage that fleet.”

Stohler said AMC typically uses a C-17 about 68 hours a month across some 19 sorties, based on numbers from the end of Fiscal 2013. Each C-17 typically goes in for programmed depot maintenance every five years. PDM involves a significant teardown and inspection entailing refurbishment or replacement of worn-out parts.

The big push for AMC now is to get the C-17 fleet to a single configuration and a “common avionics block so that all the airplanes are identical to the operators,” said Selva. More recent C-17s came with additional fuel tanks to extend their range; older airplanes will get these as a retrofit. Two further upgrades will be a common configuration fuel system and a new version of the Onboard Inert Gas Generation System, or OBIGGS, that makes fuel tanks safer; the two systems

USAF photo by SrA. Stephen J. Otero



are “high maintenance drivers” on the airplane, he said.

Stohler said AMC is now driving the C-17s toward two configurations—and eventually to one. That’s a big step down from the four or five versions of just a few years ago. He said AMC expects to get the bulk of the C-17s to the Block 17 configuration by the end of Fiscal 2016 or early in Fiscal 2017. “Block 18 will come shortly after that,” he said.

Boeing built the last of the Air Force’s C-17s off the production line to the Block

18 standard. Right now, there are typically about 38 C-17s in depot at any given time, a number somewhat inflated by the configuration changes.

“Once we come over that hump, by ’17, we should be down to a forecasted average of 22 to 25,” said Stohler. The Warner Robins Air Logistics Complex at Robins AFB, Ga., is the main depot for C-17s, but Boeing also does some of the work in San Antonio.

For now, Selva doesn’t think the C-17 will need to undergo a service life extension program, or SLEP, despite the heavy use some have seen in the last 12 years of war. “The question of SLEP versus selective upgrades of aircraft systems, I think, is a viable conversation,” he said. Eventually, he expects the C-17 may need replacement of load-bearing skins and the landing gear. Those are two elements “we’ll watch really closely” to ensure the fleet makes it to its planned retirement date, he said.

However, “we have no indication from our engineering work or the fleet viability board that any other parts of the airplane are going to require life extension over the next 20 to 25 years,” he said.

There may be some other improvements, such as enhanced self-protection systems “that we might want to think about adding



USAF photo by TSgt. Parker Gyokereers

Airmen and soldiers load a cargo pallet onto a C-5 Super Galaxy on Jan. 28 at Camp Marmal in Afghanistan. The aircraft assisted with the rotation of US Army aviation task forces.



Gen. Paul Selva (c), AMC commander, talks with Joint Chiefs of Staff Chairman Army Gen. Martin Dempsey (l) and Gen. William Fraser III (r), commander of USTRANSCOM, at Scott AFB, Ill., last summer. AMC will have to adapt to the new operational concept for the Army—whatever that may be.

... over time,” said Selva, but these don’t amount to a major change to the airplane, counting instead as maintenance and a response to operating conditions. “The advancement of the defensive systems,” so the C-17 can operate in “an increasingly contested environment, I think, is a set of capabilities we’re going to have to think our way through carefully,” he said.

AMC is also engaging industry to find ways to make the C-17 more efficient. In an experiment, pilots flew two C-17s in tight formation nearly wingtip-to-wingtip on a long flight over the Pacific, with one aircraft slightly ahead of the other. The second airplane was essentially “stealing the lift off the lead airplane,” said Selva. “Riding on top of that vortex” generated by the first airplane resulted in eight to 10 percent fuel savings.

Although AMC doesn’t usually fly two airplanes together in such a way, “tweaking the software” for the experiment revealed changes that AMC can apply across the fleet’s flight-control systems and give each airplane about a four percent boost in fuel economy, he said.

“What I’ve challenged industry to do is to start peeling apart the conventional wisdom of how we use the airplanes that we already own and come up with more efficient ways to do it,” said Selva.

The experience of more than 12 years of combat usage highlighted a few things about the C-17. It demonstrated the performance of the airplane, including assault landing capability, short-field operations

with a heavy load, and the ability to use unprepared fields—three capabilities naysayers had claimed, “‘You’ll never use,’” Selva said. However, “we’ve used them all.”

The Galaxy Is Super

The C-5M is, likewise, a star performer, and AMC has opted to keep the omnibus Reliability Enhancement and Re-engining Program modification plan in its budget partly because of the experience so far, said Selva.

The airplane is “delivering magnificent capability,” he said. “It can take off at max gross weight from Dover [AFB, Del.], and fly essentially unrefueled all the way to destinations in Eastern Europe or Central Asia.” It is demonstrating a “much higher reliability rate” than the C-5A or C-5B, with departure reliability in the percentage range of “high 80s, low 90s,” he said. “It’s a phenomenal capability.” By comparison, C-5As typically turn in departure reliability in the 50 percent range.

The C-5M program comprises the modification of 52 airplanes—one C-5A, 49 C-5Bs, and two C-5Cs—with new engines and some 70 other improvements, all building on the previous C-5 Avionics Modernization Program that concluded in April 2012. The AMP gave the C-5 a

glass cockpit and a digital backbone, but the RERP adds structural improvements and the GE F138 engine.

One of the key performance parameters of the C-5M was to achieve a 75 percent mission capable rate under wartime conditions, according to Greg Ulmer. He is Lockheed Martin’s modification, maintenance, repair, and overhaul programs and operations vice president. “That metric was to be measured at [initial operational capability] plus two years,” he said, but the C-5M’s performance so far seems to have hit the mark early. “When we operate the airplanes in a surge type of environment—say, they deploy three or four overseas and they do a mission surge—what we’re seeing is a mission capable rate between 80 and 90 percent,” he said. “We feel that the surge condition is reflective of a wartime operation.”

The company delivered the 16th C-5M in late December. Ulmer called this significant because the conditions necessary for declaring the aircraft operational hinged on the delivery of 16 airplanes.

That, in itself, wasn’t enough for Selva to declare IOC, though. Spare parts at home base and overseas had to be in place, trained pilots and maintenance crews had to be ready to operate the system, and other required assets available had to be ready.



However, Selva said in December that he expected to declare IOC shortly after the 16th airplane arrived at Dover. Of the 52 aircraft, 18 are destined for the Delaware base, with 18 slated for Travis AFB, Calif., and 16 for Westover ARB, Mass.

There is no relationship between the rate that the C-5Ms enter the inventory and the rate that the Air Force retires its C-5As, said Selva. The Air Force wants to retire the A-model aircraft, which date back to the 1960s, and neck down to a fleet of only C-5Ms.

Ulmer said the A model could be refurbished with the C-5M modification; one of the C-5M demonstration aircraft was an A model to show it could be done. The aircraft performs as well as those C-5Ms converted from C-5Bs, he said. Some members of Congress, hoping to preserve a Guard or Reserve capability for constituent bases that have operated C-5As, have advocated that the Air Force modify the C-5As, too.

There's no business case to perform the C-5M modification on the remaining C-5As, said Selva. "We don't need that additional capacity because the 52 Ms fill that niche pretty well."

The Air Force is still waiting for Congress to give permission to retire all the A models. Those getting the green light for retirement are going into Type 1000 or "inviolable" storage at the Air Force's "Boneyard" at Davis-Monthan AFB, Ariz., meaning they could return to flight status.

It costs money to keep C-5As in Type 1000 status, however, and the Air Force is hoping Congress will relent in letting

the C-5As go away permanently. "We're optimistic" it will grant permission, said Selva.

The Labors of Hercules

The C-130 fleet will also have to adapt to the new operational concept for the Army, whatever that may turn out to be. AMC is now developing a C-130 roadmap to plan how the service will continue to operate and buy the venerable tactical airlifter—and whether the Air Force should turn to something new.

"I think we are about at the right inventory, just north of 300" aircraft, said Selva. Last summer's DOD-wide Strategic Choices Management Review determined that the Air Force could "cut the size of the C-130 fleet with minimal risk," according to Defense Secretary Chuck Hagel in outlining the SCMR's interim findings. But Selva said, "We've advocated holding onto those for the time being."

The C-130 carries out two missions, he said: "tactical and operational movement of forces on the battlespace, engaged in a fight, [and] to cover ... a variety of emerging requirements in the homeland defense space." There are four variants of the C-130 in Air Force service today: C-130H1, H2, H3, and J models, the newest variant. Delivered since the 1990s, the C-130J features improved engines and performance.

In determining whether to keep some C-130Hs or buy new C-130Js, Selva said the key factor is "the quality of the wing box on the airplane." About a third of

the H models have had new wing boxes installed, at some expense, "to keep them viable," he said. "That investment is sunk cost."

The Air Force drew heated criticism from Congress for deciding it could not afford to buy and support the C-27J Spartan fleet and for opting to divest these airplanes and carry out its missions with C-130s instead. Of the 21 C-27s built for the Air Force by Alenia Aermacchi, the Army Special Operations Command is taking on seven, while the Coast Guard will operate the remaining 14.

AMC should have 104 C-130Js in its fleet by the end of Fiscal 2014, said maintenance officer Stohler. Of those, only 10 are what he called "shorties"—the same size as the C-130Hs. The rest are C-130J-30s, a "stretched" version 15 feet longer that can carry up to 128 passengers or 92 paratroopers.

The Air Force has only been buying the stretched version for the past decade or so. Other USAF organizations, such as Air Force Special Operations Command, also buy C-130s in specialized configurations for their unique noncargo missions.

Jack Crisler, Lockheed Martin's vice president for new business in mobility, special operations, and maritime systems, said his company has been told the Air Force's eventual requirement is for 265 C-130Js. However, the program of record—the number of airplanes the Air Force is authorized to put on contract—is 134 airplanes. The Air Force has already ordered 99 of those and Lockheed Martin has supplied 91.



Far left: SSgt. Jason Siverling adjusts a strap on a C-17 before a drop in South-west Asia. Left: A C-5 is transformed through re-engining and refurbishing into a C-5M Super Galaxy at a Lockheed Martin facility. Selva says the C-5M has "magnificent capability."

Lockheed Martin photo

The Air Force is not buying the C-130J under a multiyear contract but, rather, on a year-to-year basis, said Crisler. The company will deliver those airframes now on order by the end of 2015, he said.

Like the C-17 and C-5, AMC wants to get to a common configuration on its C-130s, said Crisler. The various blocks "come about every three years" and are driven by a C-130 user group including all the US services operating the aircraft, plus a number of international customers.

To keep older C-130s in the fleet beyond 2020, they would likely need an upgrade to their communications and navigation systems, said Selva. "Those investments would be made in the context of a roadmap look at the airplanes that are most viable," he said. The roadmap will decide if it makes financial sense to refurbish the older airplanes or just buy new ones.

"We're doing that business case right now. It's very preliminary," said Selva. It's a tricky calculation, though, because the longer some aircraft are retained, the more work they need. The Air Force had an avionics modernization program for the C-130 fleet planned, but curtailed it due to budget cuts, opting for more selective improvements instead.

The roadmap will look beyond the Air Force's broader servicewide, 10-year forecast because of uncertainties about the C-130 beyond that point, said Selva. "If we keep looking at what makes them viable between now and 2020, we continue to sink investment into the older airplanes that may or may not make them viable

beyond 2020. So we're trying to ask that question from a long-term perspective."

Crisler said Lockheed Martin is building 24 C-130s a year, the most efficient rate. It's about a 50-50 share between the Air Force and all other customers. While C-130Hs go into programmed depot maintenance every five years, the C-130J fleet is young enough that that hasn't happened yet. "When the aircraft reaches its 12-year birthday ... we have a 12-year inspection," said Stohler. "Then, five years after that, it will get its first PDM."

In terms of mission capable rates, the J-model airplanes perform somewhat better than the C-130Hs, said Stohler. The MC rate "for the Hs right now is sitting just at about 75 percent, as of the end of November," he said. The J models are "just a touch above 80" percent, although the AMC standard for them is about 85 percent.

Crisler said Lockheed Martin is working on a number of modifications that could make the C-130 fleet more efficient, such as the use of "microvanes," or strakes along the rear of the airplane to improve airflow and reduce fuel consumption. Another possible upgrade would be the addition of winglets on the tips of the wings, but such developments so far are not Air Force requirements, and Lockheed Martin is investigating them at its own expense.

The C-130 roadmap will work hand-in-hand with AMC's look at how it will perform the combat airlift mission, longer term. The command is beginning to study

requirements "that define what the airlift fleet looks like ... into the early '30s and on into the '40s," when the C-17, C-5M, and many C-130s will reach the limits of their life expectancy, Selva said. It's necessary to think that far ahead so AMC isn't caught having to recapitalize two or more fleets at once.

Enter the C-X

Selva said he doesn't want to presume the requirements for the next generation of airlifter will look just as they do now; in fact, they likely won't.

"What are the attributes we want that lifter to have, and does it make sense to start cutting that into our thinking in the late teens, so we're not buying ourselves into a legacy airplane?" he asked. It may not make sense to keep buying new C-130s toward the end of this decade if their service lives will carry them into an era when they are no longer relevant.

These ideas and roadmaps represent "the conceptual work for C-X," an airplane that may replace both the C-17 and C-130 alike, said Selva. The capabilities of the C-X will largely depend on what direction the Army's going on tactical and operational maneuver and what contribution that lifter will make to that maneuver, he said. It may be that the aircraft needed has to be able to operate within contested or denied airspace. If it must, that would almost certainly demand an aircraft very different from either the C-17 or C-130—one designed with low observability in mind and potentially with far greater speed and agility.

"We're working with ... the Air Force Materiel Command team on the broad requirements" for C-X, said Selva, as well as with the Air Force Research Laboratory to get "a head start on what this airplane might look like or what that set of capabilities might define in terms of an airplane or multiple airplanes."

Although the thinking seems to be that AMC could narrow the possibilities to a single airlifter, probably sized somewhere between a C-130 and C-17, that may not be the case. "It might be that we still have to have a division between the strategic and tactical lift environment in terms of the tools we use to get that work done," said Selva. ■

Pacific Rotations

By **Marc V. Schanz**, Senior Editor

A routine flight of two B-52H Stratofortress bombers over the East China Sea gained international headlines last November. This mission was the first military challenge to China's unilateral declaration of an air defense identification zone around the disputed Senkaku/Diaoyu Islands.

Pacific Air Forces has conducted these types of long-range flights over the vast overwater airspace of the Asia-Pacific region for years, and these



Photo via Commonwealth of Australia

Across Asia and the Pacific, USAF airmen will deploy to work with allied air arms.

A B-2 approaches the boom of a KC-135 for refueling over the Pacific Ocean in January 2013. Last year, B-2s were part of a power projection mission that helped de-escalate growing tensions on the Korean peninsula.



A B-52 from Andersen AFB, Guam, on the flight line at RAAF Base Darwin, Australia, on Jan. 28. PACAF chief Gen. Hawk Carlisle said US and Australian governments are working on establishing regular rotations of PACAF tactical aircraft to Australia to begin as soon as 2015.



USAF photo by ATC Brooke P. Doyle

particular B-52s staged from Andersen AFB, Guam, where the United States has maintained a continuous bomber presence since 2004. Bomber units rotate there from the US mainland for periods up to six months as a means to train, exercise with allies, and promote stability in the Asia-Pacific region.

Such deployments are just one component of PACAF's multifaceted presence and engagement. Now, the command intends to build on these activities by adapting a deployment model first used in the Cold War; with it, the command wants to bolster its ability to advance American interests and forge familiarity with allies in the region.

Looking ahead, PACAF officials said regional USAF assets will be tasked with missions ranging from power projection and "Phase Zero" activities in preconflict scenarios—similar to the air defense identification zone (ADIZ) sortie—to deploying rapidly to provide humanitarian relief in the wake of natural disasters, such as November's Typhoon Haiyan in the Philippines. To support this strategy, the Air Force plans to expand its deployments to the region—and to do so beyond its traditional garrisons in South Korea and Japan.

Temporary rotations of combat aircraft—from fighters to bombers and

big-wing intelligence, surveillance, and reconnaissance assets—will pick up, as crews deploy more frequently and to more locations. This action comes as the US military adjusts the combat aircraft rotations that have supported US Central Command in the wars in Afghanistan and Iraq for the last decade plus.

PACAF officials said the initiative is a response to Adm. Samuel J. Locklear III, head of US Pacific Command, who is urging all his component commanders to step back from planning around specific crisis points and put more thought into flexing across the entire theater to respond to tensions, preconflict states, and crises as they emerge.

Gen. Herbert J. "Hawk" Carlisle, PACAF commander, said that in the past, PACOM and its components heavily emphasized preparations for specific operations plans, or OPLANS, focused on single adversaries or single areas of conflict, such as a Taiwan Strait war or responding to a North Korean invasion of South Korea. Indeed, PACOM and PACAF officials said the primary purpose of many Air Force garrisoned forces in East Asia, specifically in Japan and South Korea, is to support OPLANS for just these contingencies.



SSgt. Brent Bryant prepares to launch a C-17 on the flight line at Rimba AB, Brunei, during a multilateral networking and sharing technology exercise in 2013.

Return to the Checkered Past

“What [Locklear] is trying to do is manage the entire theater, from Phase Zero to Five, to maintain an engagement posture, ... not just [in] one geographic area,” said Carlisle in a January interview.

This affects operations ranging from flights through China’s ADIZ to activities in the South China Sea or on the Korean peninsula. The divided peninsula played host to another high-profile power projection mission last year, when two B-2A Spirit stealth bombers made a nonstop training flight from Whiteman AFB, Mo., to a bomb range in South Korea. The mission was not announced in advance and helped de-escalate tensions with North Korea—which at the time had been increasingly belligerent.

Presence, however, requires flight hours, trained and ready aircrews, and iron on ramps in an era when operation and maintenance accounts are in flux due to budget sequestration. To meet the demands of this approach, PACAF is emulating the Cold War-era “Checkered Flag” model, where the majority of US tactical air forces regularly deployed to specific fields in Europe to train and gain familiarity with new operating locations.

Today airmen will be collocated in new areas across Asia and the Pacific with allied air arms from the Philippines to Australia, and they will partner with allies such as Malaysia and Thailand in keeping with the “places-not-bases” credo espoused by senior US military officials.



A1C Anthony Tarnowski inspects the cockpit of an F-16 at Andersen during Exercise Cope North 2013. USAF, RAAF, and the Japan Air Self-Defense Force participate in Cope North, an annual readiness and interoperability exercise.



USAF photo by MSGt. Jerome S. Tayborn

“I know some question if we can afford this ... engagement,” said Brig. Gen. Steven L. Basham, PACAF’s director of strategy, plans, and programs, at the Air Force Association’s Pacific Air and Space Symposium in Los Angeles in November. “We should think if we can afford not to do this. ... We’re not talking permanent presence; we’re not adding bases, but we’re adding places where we maintain a presence. ... You have to spend time with your partners and allies in order to understand their environment.”

A driving force behind the recent emphasis on the service’s Asia-Pacific posture is the importance of airpower security cooperation. The greater cooperation needs to come with a lighter footprint—and outside of the Air Force’s traditional bases.

In June 2013, Carlisle unveiled “PACAF Strategic Plan 2013,” articulating the command’s priorities,



USAF photo by SSgt. Alex Monties

taking into account fiscal and force structure changes underway. The plan directs units to focus on three core tenets: expanding engagement across the theater, growing Air Force combat capability, and improving combat force integration.

“I cannot overstate the importance of working with our allies, partners, and the international community to deter aggression and to maintain peace and stability in the region,” said Carlisle in June during the plan’s rollout. “What I see in the future is increased engagement by rotational forces, focusing across the spectrum from combat capability to humanitarian assistance.”

In July, Carlisle outlined his vision for the future rotations during a meeting with reporters in Washington, D.C. At that time, PACAF had one expeditionary squadron of F-22 Raptors deployed to Kadena Air Base on the Japanese island of Okinawa and 24 F-16s deployed to South Korea as theater security packages (TSPs). These packages comprise combat assets that augment forces already operating from those locations, usually for four-month intervals. Carlisle declared that these packages would increase in frequency and serve as building blocks for ramping up presence in the theater.

Tinkering with the size, frequency, and nature of these deployments, PACAF will be able to achieve many of its objectives and support PACOM’s theaterwide goals as well.

The essence of PACAF’s Checkered Flag reboot is to use these Theater Security Packages (TSPs) as a template for aircraft deployments, from packages supplementing large force multilateral exercises, such as Red Flag Alaska or Cope North, to smaller events with partners in locales like Malaysia and Indonesia.

“We rotated almost every CONUS [continental US] unit to Europe [to prepare] for the big Fulda Gap war [in Central Europe]. ... Everybody got familiar,” said Carlisle in July when describing his experience with Checkered Flag. Under the old construct, nearly every fighter and bomber unit would deploy every 18 months to two years and fly from a collateral operating base in Europe.

The Checkered Flag reincarnation, much like the bomber presence on Guam, has the benefit of achieving all three of PACAF’s tenets within a single construct. PACAF will increasingly be deploying forces south and west in

PACOM's area of responsibility. Forces will fan out to locations ranging from Trivandrum near the southern tip of India—collaborating with the Indian air force—to military airfields in Thailand such as U Tapao on the Gulf of Thailand and at Korat in the central part of the country and Udorn Thani in the northeast.

Over the past 10 years, combat and mobility units rotated in and out of Iraq and Afghanistan for six months at a time in most cases. A shift to PACAF would be slightly different and would have Air Force crews training in a wider variety of missions often in collaboration with allied air forces.

Units know that when they are in the bucket, in many cases, those rotations will be to other areas of responsibility, said Carlisle in January. "Our intent is to have more come to the Asia-Pacific."

Partnering Culture

As PACAF plans stand, the new rotations will be less than standard six-month hitches in the majority of cases, many being four-month TSP rotations, and some being even shorter. "Some will just be one-month rotations to participate in several exercises, or take an Air [National] Guard squadron to do a Cope Tiger [in Thailand] or a Commando Sling [in Singapore]," said Carlisle. PACAF will utilize the existing air and space expeditionary force structure, but will assign forces with greater flexibility than in the past.

PACAF's bases in Japan and South Korea remain important and will also serve as locations to support engagement in the south and west of the theater. The Air Force will operate both with long-standing treaty allies and with emerging partners in locations they have not deployed to regularly in some time, particularly in South and Southeast Asia.

Set-piece rotations of aircraft around Asia are part of building up a "partnering culture" in the theater, as Heidi H. Grant, deputy undersecretary of the Air Force for international affairs, called it. As of mid-September 2013, Grant said she had visited seven of the 10 members of the Association of Southeast Asian Nations in the previous two years. "These visits have been to have discussions, to engage, and ask, 'What is it you are looking for? How do you want to partner with the US?'" she said in an interview then.

In the past year Carlisle himself has visited some of these nations in the

USAF photo by SMSgt. Denise Johnson



Left to right: Royal New Zealand Air Force Flight Lt. Tim Pevreal, USAF C-17 pilots Capt. Gabriel Wetlesen, Capt. Caleb Rasmussen, and 1st Lt. Michael Olah run through a preflight briefing at RNZAF Base Ohakea, New Zealand, before an airlift mission for Exercise Kiwi Flag. The three-week training exercise took place last November.

past year, such as Thailand and the Philippines, a US treaty ally.

The visits resulted in improved low-level personnel exchanges, conferences, and other security cooperation activities, said Air Force and PACAF officials. Others have served as the basis for enhancing cooperation like collaboration with rotational deployments of aircraft.

As of early January, the State Department, along with PACOM, continues talks in Manila regarding the future status and disposition of US forces operating in the Philippines. Carlisle indicated that Air Force units would not return in large numbers to the former Clark Air Base, near Manila, or Subic Bay Naval Base. Instead, the Air Force might well come to the Philippines and operate out of locations alongside Philippine air force units. Locations under consideration include airfields at Cubi Point and Basa Air Base, a PAF installation north of Manila.

One of the centers of activity that will have great importance in the new rotations is Australia, another US treaty ally. In July, Carlisle said the US and Australian governments were working

on establishing regular rotations of PACAF tactical aircraft that would begin as soon as 2015 to Royal Australian Air Force Base Darwin and RAAF Base Tindal, both in the country's Northern Territory.

The new government of Australian Prime Minister Tony Abbott has reinvigorated discussions with the United States regarding military engagement, and the Australians are seeking to expand RAAF cooperation with PACAF, said Brian Woo, Carlisle's foreign policy advisor, in November. Woo is a retired foreign service officer.

Ramp improvements and cost sharing between the countries are in the works for Darwin and Tindal. PACAF anticipates that a bomber rotation could eventually begin in collaboration with the RAAF at these locations.

"We've landed a bomber out of Andersen ... down at Darwin and turned around and took it off again. So we've demonstrated it," said Carlisle in July when first detailing the renewed partnership. In late January, a lone B-52 was sent to Darwin for a short-term exercise with the Australians. PACAF officials



USAF photo by SSgt. Nathan Allen



and the Australians are also exploring deployments and training in airfields and locations in the country's sparsely populated northwestern areas, such as Pilbara.

Reducing the Cost of Presence

Talks between PACAF and the RAAF are continuing this year to address logistical issues at the sites, such as pre-positioning certain equipment at Darwin, to cut down on deployment costs, said PACAF officials.

Existing cooperation will expand steadily. In the coming year, PACAF's F-16 aggressors from Eielson AFB, Alaska, will deploy to Australia to train with RAAF F/A-18 Super Hornets, and RAAF forces will, in turn, come to Alaska to participate in Red Flag-Alaska, for example. Later this year PACAF will send assets to join one of Australia's large-force multilateral training events, such as Exercise Pitch Black, as well.

With operations accounts remaining under close scrutiny across the Air Force, PACAF officials are still refining the logistics of these plans.

The command's bomber rotation on Guam has evolved, too. Carlisle noted that innovation at the unit level helped shrink the deployment package needed to move maintainers and equipment,

Gen. Hawk Carlisle speaks to PACAF airmen at JB Pearl Harbor-Hickam, Hawaii, Feb. 4. Carlisle stresses the importance of working with international community partners to maintain peace and stability in the region.

and PACAF command is studying the potential of permanently stationing some personnel with Andersen's 36th Wing to save dollars. "One of the big costs of rotating presence is moving the entire aircraft package," he said. In some cases, PACAF planners are working with Air Combat Command to see if there are times when aircraft could stay at a given location and only personnel would rotate for another cycle.

In the next few fiscal years, PACAF will have to spend some money on military construction of facilities and ramp improvements in areas such as Guam, but will face less of an infrastructure challenge in other locations. "In some of these areas, ... there will be contributions and cost sharing," said Carlisle. He highlighted Singapore, the host of three iterations of Commando Sling every year, and Thailand, which regularly hosts US forces. "In those areas, there will be less Milcon and more pre-positioning, so we're not moving things around all the time."

PACAF received some good news with the enactment of the Bipartisan Budget Act of 2013 in late December. It provided some near-term stability

to operations accounts. The deal gives PACAF more money back for base operations support, flying hours, and training activities, especially in Fiscal 2014 and 2015, said Carlisle.

While some plans will have to shrink and scale back, the budget numbers "allow us to optimize where we put each dollar. ... We can preplan now, leave equipment in place ... to piggyback off other rotational presence activities to allow more participation. It also allows us to tell partners and allies in the region, 'Here's what we're going to do.'"

Still, PACAF officials said question marks remain about the later years of their plan to step up rotations. Capital investments and more military construction choices will have to be made in Fiscal 2016 and beyond.

Another question concerns what forces will deploy to the US Central Command region in future years. Both theaters will require expeditionary air forces, and it is likely that the duration of deployments will go down but rise in frequency. "We are going to have to maintain the ability to rotate forces into both these critical areas," said Carlisle. ■

Fallujah

By Rebecca Grant

A grinding ground war a decade ago reinforced the importance of airborne intelligence and precision.

Forty miles west of Baghdad lies an Iraqi city that is once again, tragically, making the headlines: Fallujah. On Jan. 3, elements including al Qaeda sympathizers and insurgents from Syria declared control of the city.

The reports from Fallujah reopened memories of the fighting there 10 years ago. In 2004, Americans fought two bloody battles for Fallujah—two battles that together redefined the requirements for airpower in stability operations after hard lessons.

Fallujah in 2004—as in 2014—was no scene of a popular uprising or national movement.

Its strategic location astride a major highway and at the figurative heart of Iraq's restive Anbar province made it a rallying point for multiple groups testing the cohesion of Iraq's post-Saddam government.

The first battle of Fallujah began on April 4, 2004, under the name Operation Vigilant Resolve. A force of 1,300 marines assisted by US Army units and Iraqi forces launched a citywide sweep to root out insurgents and other forces opposing Iraq's interim government. They pulled back after several days of hard fighting to allow Iraqis to negotiate amongst themselves.

It didn't work. In November, US-led coalition forces again entered Fallujah, this time with a 10,000-man force supported by tightly choreographed airpower. What they found was an arsenal for insurgency. Weapons caches and material for making improvised explosive devices were all stockpiled in the city. Secretary of Defense Donald H. Rumsfeld later reported that 66 of 77 mosques in Fallujah searched by Iraqi troops turned out to be storing weapons for the insurgency.

Nearly 150 Americans died in the two battles to wrest control of Fallujah from the insurgents. US losses in the two battles totaled 51 dead in April and 95 in November, and more than 1,000 US troops were injured.

Despite the cost, the coalition had taken an important step. Fallujah's fight set a new pattern for operations to stabilize Iraq by galvanizing cooperation between the land and air components. Because of Fallujah, beefed-up ground forces had new tools and methods to take advantage of precision air strikes and intelligence, surveillance, and reconnaissance.

First Fallujah

Iraq was quiet for a time after the capture of Saddam Hussein in December 2003. USAF Gen. Lance L. Smith was a three-star at the time and serving as deputy commander of US Central Command. He recalled speaking with his boss, Army Gen. John P. Abizaid, about the eerie calm in January and February 2004. When it's quiet like this, they are plotting, Abizaid warned.

The calm soon changed. Insurgent attacks were spreading, and many had links pointing back to Fallujah. "The first time Fallujah popped up on the screen was when we were trying to locate al-Zarqawi," Smith said



US Army photo by Sgt. 1st Class Johancharles Van Boers



A1C Christopher Komorek (r) scans the horizon for danger while A1C Kyle Sharp calls in close air support during combat operations in Fallujah Nov. 13, 2004.

in a recent interview. Abu Musab al-Zarqawi was a Jordanian-born terrorist who masterminded hundreds of bombings and beheadings. This made him the most wanted man in Iraq following the capture of Saddam.

"All of us know that for a long time Zarqawi has used Fallujah as a base of operations," Abizaid said in April 2004.

But the problems in Fallujah ran deeper. Swirling in the background was a drive by Sunni militant groups to push back against growing majority Shi'a control. "The Fallujah piece is Sunni," said a senior CENTCOM official at the time. He described the insurgents as "more or less the disenfranchised, former Ba'athists or former regime elements that really are out there, oftentimes unemployed, with little hope for the future."

Geography and history contributed. Long-established routes to Syria created a potential cash pipeline for insurgents. An influx of foreign fighters stirred the conflict as well.

The combination quickly turned Fallujah into a dangerous site—and a breeding ground for violence throughout Iraq. "Besides being a safe haven for leadership command and control, Fallujah was a center for making the [improvised explosive devices] that were being produced and used in other parts of the country to attack the coalition," Smith said.

It all came to a head in the spring of 2004.

On March 31, four American contractors were killed, burned, and brutalized by insurgents who then infamously hung two of the corpses from a bridge over the Euphrates River.

The same day, five US soldiers were killed by a roadside blast a few miles north of the city.

In CENTCOM's judgment, the ambush was a target of opportunity killing, but it demanded a response.

Fallujah was too dangerous to leave alone. Some 1,300 marines from the 1st Marine Expeditionary Force (I MEF) closed a ring around the city. Teams then struck into the city, hunting for those responsible for the slayings and drawing out other insurgents.

"They have cordoned off the city. They are in the process of systematically moving through the city, looking for targets that are identified," Rumsfeld said on April 7, 2004.

Overhead was US and coalition airpower—used for strikes and for surveillance. AC-130 gunships targeted specific sites,

and marines called in precision air strikes against buildings harboring terrorists and insurgents.

Those on the ground met surprising resistance. "I knew we'd be fighting here, but I never thought I'd be calling for mortars and air strikes and all that," Marine Corps 2nd Lt. Joshua Jamison told a Montana newspaper. He was among the first to go in.

"It was like we kicked a hornet's nest," recalled Smith.

Just who was fighting? The largest group consisted of former regime elements, Iraqi extremists, extremists from outside Iraq, and the Zarqawi network, said Air Force Gen. Richard B. Myers, who was Chairman of the Joint Chiefs of Staff at the time.

Rumsfeld called them "Saddam leftovers." On top of this, according to Myers, were "thugs and gangs" associating themselves with Moqtada al Sadr, a radical Sunni cleric.

Another Way

It soon became apparent that the mess in Fallujah went well beyond what could be resolved with raids and sweeps. In mid-April, CENTCOM paused offensive operations in Fallujah to give the Iraqi Governing Council a chance to sort out the situation, explained USMC Gen. Peter Pace, vice chairman of the Joint Chiefs of Staff.

Iraqi forces were formed into the Fallujah Brigade in an attempt to control the city, while the marines remained outside.

CENTCOM did not declare victory. In fact, leaders gave every indication they expected to be back in Fallujah again. "We will have to eliminate that enemy in a way that does not allow that force to challenge us throughout Iraq and other places at other times," said Abizaid in a Pentagon briefing on April 30, 2004.

He was well aware insurgents had many ways out of Fallujah. "No doubt some of them will 'exfiltrate' out, and no doubt some of them will find other means to escape, like any insurgent, or blend in with the population. But it may still be necessary to conduct very robust military operations in Fallujah," he warned.

The foray into Fallujah was an eye-opener for CENTCOM's senior leadership. The 2003 invasion campaign had been largely a by-the-book drive to Baghdad. US forces encountered resistance



Photo by Cpl. Matthew J. Appredi



DOD video stills via dvidshub.net

Left: Marines fire on terrorists during the April 2004 battle of Fallujah. Above: Stills from Department of Defense videos taken during the November 2004 battle of Fallujah.

from Saddam's irregulars and sporadic improvised explosive devices and rear area attacks. However, the Iraq War in early 2004 had not yet settled into the organized insurgent resistance destined to prove so lethal and intractable in years to come.

For coalition ground forces, the process of rooting insurgents out of urban nests was still unfamiliar. The city of Fallujah held hidden dangers. "Our guys didn't have a lot of experience with that kind of door-to-door fighting," said Smith of the April conflicts there.

Writer Bing West described the experience of marines in the city during the April battle. "The insurgents had some decent

snipers hiding among the maze of rooftops, waiting hour after hour,” he wrote in his 2005 book about Fallujah entitled *No True Glory*. “Mortar attacks were common, day and night,” he recounted. AH-1 Cobra helicopter gunships “attracted a fusillade of machine-gun fire and [rocket-propelled grenades].” Smart maneuver was nearly impossible under these conditions.

Of course, the coalition had manpower and firepower to overwhelm the city. According to a Knight Ridder report from Fallujah in April 2004, Col. John C. Coleman, I MEF chief of staff, said, “I can rubble that city and reduce it to crushed stone and walk over it quickly. But that is not the ideal; it may be the worst thing to do.”

Indeed, that was far from the right strategy. Consequently, tactics for how to apply decisive force in Fallujah presented a real dilemma. The urban fighting was proving costly, but the coalition took great pains not to destroy the city or alienate the Sunni tribal leaders thought to be key to future stability in the area.

What marines and other forces needed was to take full advantage of the coalition’s air dominance over the city and turn it into a usable tactical edge.

Airmen were not satisfied with the events of that April, either. “We went to school on what happened,” said Lt. Gen. Walter E. Buchanan III in 2005. He had been head of US Central Command Air Forces during both Fallujah sieges of 2004.

Learning the lessons was no easy task. For example, Fallujah as seen from the air was a “town full of literally flat brown roofs and a couple of mosques here and there,” in Buchanan’s words. What looked like three buildings from the ground appeared to be one long flat roof from the air, he noted.

Joint terminal attack controllers had a hard time describing target sites, and the coalition force as a whole lacked reference points beyond the major east-west roadways. All told, the first battle of Fallujah was no way to fight in the new conditions of Iraq.

Preparing for Part Two

Sporadic fighting continued in Fallujah through the summer. It was only a matter of time until the coalition had to mount a more thorough campaign in the city. If fighting spread, it could jeopardize all the gains of Operation Iraqi Freedom.

Success in the second battle of Fallujah required several quick fixes in air component planning and tactics. While many of these were already in the works, planning for Fallujah’s second battle focused and accelerated the process. “We knew it was going to be air intensive because of the urban environment,” said Buchanan.

All agreed that ground forces needed airborne overwatch as they moved through the streets where their sight lines were blocked. As Buchanan explained, “When you’ve got ground forces that are running in parallel down through an urban environment, ... it’s very difficult to coordinate lead elements.”

Maps were one solution. “We had learned our lessons from first Fallujah on maps. We went into this fight with everybody having the exact same map all the way down to the company commander up to the folks in the airplanes,” Buchanan commented.

As the combined force air component commander, he also set up the keypad grid system over Fallujah to provide a common frame of reference for airspace deconfliction and for ground attack. The kill box or keypad system had first been used in Operation Desert Storm, then again in the march up to Baghdad in 2003. Now it became a standard feature that planners could set up quickly over any area of Iraq.

Fighters with targeting pods watched and passed information on movement of friendly units as well as scanned for adversaries. For the second battle of Fallujah, Buchanan added more layers of aircraft on call over the city. He ensured there were a number of Air Force JTACs brought in to lend their unique expertise in controlling close air support strikes.

(Continued on p. 41)

Marines fire a 155 mm Howitzer at enemy targets from Camp Fallujah.



USMC photo by Lance Cpl. Samantha L. Jones



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	Individual Plan	Family Plan
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30-39	4.98	6.87
40-49	10.80	14.55
50-54	27.00	36.99
55-59	38.70	53.70
60-64	59.82	84.81
*65-69	135.00	172.50
*70-74	216.00	291.00
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25-29	n/a	350,000	262,500	175,000
30-34	n/a	250,000	187,500	125,000
35-39	n/a	180,000	135,000	90,000
40-44	\$150,000	100,000	75,000	50,000
45-49	90,000	60,000	45,000	30,000
50-54	60,000	40,000	30,000	20,000
55-59	42,000	28,000	21,000	14,000
60-64	27,000	18,000	13,500	9,000
RENEWAL ONLY				
65-69	12,000	8,000	6,000	4,000
70-74	7,500	5,000	3,750	2,500
75-79	6,000	4,000	3,000	2,000
80-84	4,500	3,000	2,250	1,500
85-89	3,750	2,500	1,825	1,250
90-94	3,000	2,000	1,500	1,000
95+*	1,000	1,000	1,000	1,000

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- **\$3,500 First Occurrence Benefit** paid once during the lifetime of the insured upon the first diagnosis of cancer (excluding skin cancer). (N/A in MN)
- **\$50 per day for In-Hospital Confinement** for cancer treatment starting on day one up to a total of 90 days per illness period.

- **up to \$1,000 for Chemotherapy and Radiation** includes x-ray, radium and cobalt treatments.
- **\$75 per year Wellness Care Benefit** paid every 12 months toward Preventive Cancer Screening.

Members 19-65 years of age (coverage continues to age 75) may apply. Applicants must be cancer free for five years (12 months in TX, 2 years in GA, 6 months in CA) prior to application date.

Premiums:

- \$9.95 per month for Member
- \$15.95 per month for Family

Call 1-800-752-9797 or visit www.afainsure.com for further details and to apply.

Underwritten by Monumental Life Insurance Company, Cedar Rapids, IA, a Transamerica company. Coverage may not be available in all states.



Mercer Consumer, our new insurance broker/administrator

In the fall of 2013, Mercer Consumer was selected as the new insurance broker/administrator of AFA's insurance programs.

Mercer Consumer is a wholly-owned subsidiary of Marsh & McLennan, the world's largest insurance broker. It was chosen by AFA because it affords our membership access to the full range of services necessary to provide you with top quality insurance products and professional customer assistance.

Existing and new insureds are welcome to contact Mercer Consumer whenever they need information or assistance on AFA Insurance Programs. Always remember to identify yourself as an AFA Member.

Phone: 1-800-291-8480, 7:00 AM - 5:00 PM CST. M-F

E-mail: afa.service@mercerc.com

**Mail: Administrator AFA Group Insurance Program
P. O. Box 14464
Des Moines, IA 50306**



It is a good idea to review your insurance annually to make sure that your policies keep pace with your changing needs. We encourage you to remove and retain this QUICK GUIDE. Then compare these coverages with your present policies. Take advantage of the savings that AFA Insurance Programs offer.



Another problem was identifying and targeting insurgents—and distinguishing them from noncombatants. The insurgent is a “smart guy and he is taking full advantage of living, hiding, and operating in and amongst the local populace and making himself look like them,” Buchanan said.

Above: Airpower takes out an insurgent stronghold with precision weapons as marines move forward through Fallujah. Below: Soldiers clear an area in Fallujah during the November 2004 battle.

The marines added some overhead imagery of their own. Smith discovered their new drones when he traveled to Fallujah that fall to meet with Lt. Gen. John F. Sattler, who had just taken over command of I MEF.

“Let me show you something,” Sattler told Smith. In the months following the April battle, the marines had deployed new Scan Eagle low-altitude drones that were transmitting live video overhead Fallujah.

“Can it talk to the Army?” Smith enquired.



US Army National Guard photo



US Army National Guard photo by Spc. Andy Miller

“No,” Sattler told him. As good as the pictures were, Smith realized the marine-only Scan Eagle was a work-around. Ground operations needed more extensive theater coverage from the medium-altitude MQ-1 Predator.

But these were the days before multiple combat air patrols from unmanned airplanes flew over Iraq. Smith said that, at the time, they did not have enough for 24-hour coverage over Fallujah.

Where Predator flew it was wildly popular. “We’ve seen people setting up mortars and actually located improvised explosive devices and were able to prevent somebody with weapons from being able to shoot or injure any of our troops,” Predator sensor operator USAF Capt. Catherine Platt of the 17th Reconnaissance Squadron told Dallas TV station reporters.

Still, the air component had to keep an eye on the whole theater picture. CENTCOM officials worried that attacking insurgents in Fallujah would spark more fighting in other parts of Iraq. Buchanan remembered a “very clear intelligence signal that the insurgents, once we put pressure on Fallujah, were going to try and cause a fight somewhere else.”

USMC photo by Lance Cpl. James Voorhis

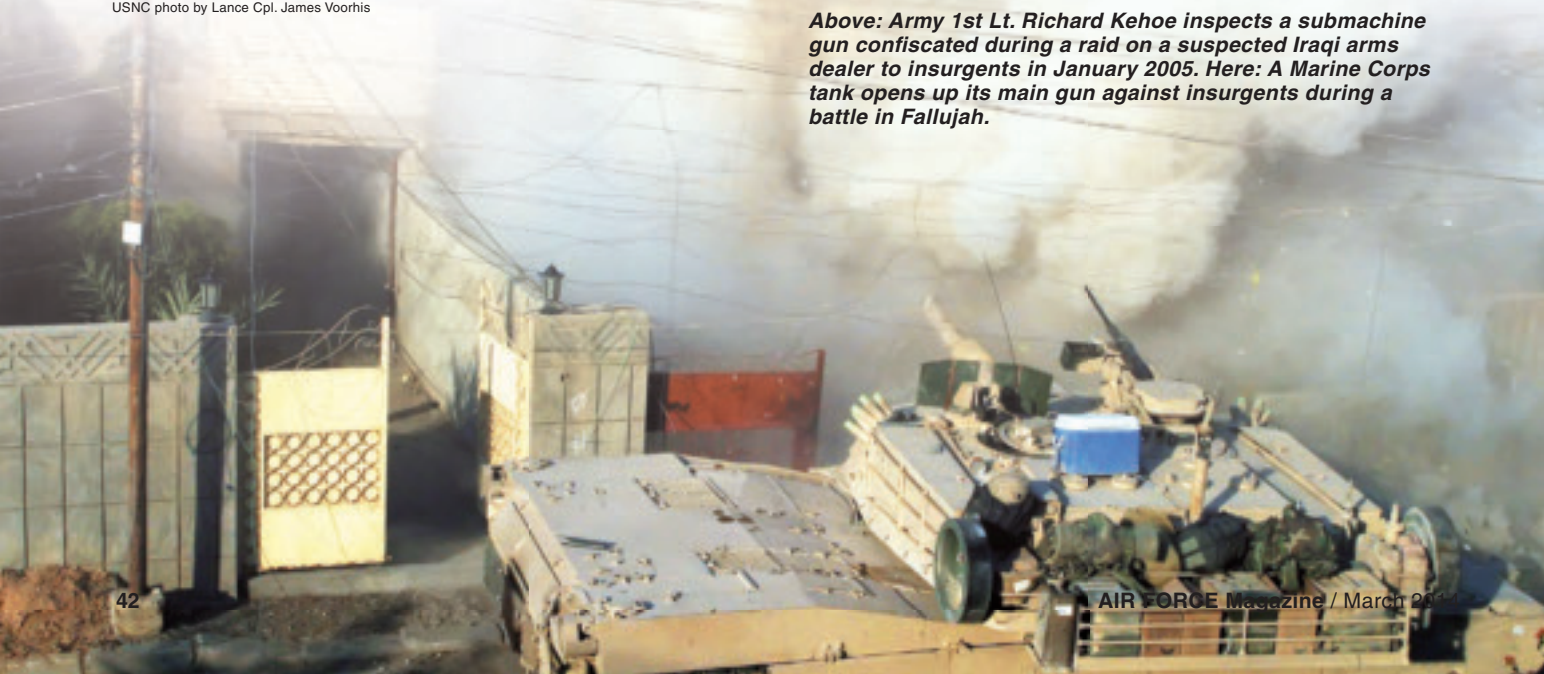
Mosul, al Qaim in Anbar province, and southern areas of Iraq were all concerns. To compensate, Buchanan put extra airpower in place using an aircraft carrier and other assets. The air component was “actually providing increased coverage in the north over Mosul and on the western edge, waiting to see if the insurgents erupted.”

The larger design was to place organic Marine Corps air in close linkage with marines on the ground. The air component apportioned Air Force, Navy, and other assets to add to the layers of close air support coverage over Fallujah and to pin down any pop-up fighting in other sectors of Iraq.

Before the offensive, the final step was to complete what Buchanan called “shaping” operations. Fallujah itself was emptying in the autumn of 2004. In fact, US Army Gen. George W. Casey Jr., the Multinational Force commander, estimated that more than half the 200,000 residents had left.

Using integrated surveillance, the air component conducted discrete air strikes on known insurgent strong points to prepare the battlefield. “Most of those bombs that were dropped during that time frame were in fact Air Force and Navy, as we went es-

Above: Army 1st Lt. Richard Kehoe inspects a submachine gun confiscated during a raid on a suspected Iraqi arms dealer to insurgents in January 2005. Here: A Marine Corps tank opens up its main gun against insurgents during a battle in Fallujah.





USMC photo by Lance Cpl. James J. Vooris

US troops perform a house-to-house clearing patrol through a street in Fallujah.

sentially down in the industrial section of Fallujah, down into the southeastern section, and going on in,” said Buchanan.

This time around, coalition forces had prepared for what lay ahead. “We knew what kind of forces we had to have available and what kind of fight to expect,” Smith said.

Second Fallujah

The second battle of Fallujah began Nov. 7, 2004, after it became clear that Fallujah continued to fester as an insurgent base. Advance elements of the 10,000-strong coalition force moved to block exits and isolate the city. Aircraft hit a series of preplanned targets, then shifted to on-call response.

Iraqi forces led the attack up the western peninsula, to establish government control over the Fallujah General Hospital. Marines took two bridges to block westward movement from the city.

“The enemy is fighting hard but not to the death,” said Army Lt. Gen. Thomas F. Metz, the multinational ground force commander, at a DOD press briefing. “There is not a sense that he is staying in particular places.”

Signals intelligence flashes indicated the fight was going well. “If you’ve heard any of the enemy radio intercepts, they clearly show that the enemy was reeling and panicking from this attack,” Army Lt. Col. James E. Rainey said in a 2006 oral history interview. Coalition airmen supplied nearly all precision guided ordnance for the second battle in Fallujah.

“The air plan was real difficult because of the collateral damage concerns,” Smith said. Sunni tribal leaders were angry with al Qaeda and insurgents and giving the coalition some assistance. As a result, “we had a lot of incentive not to go in there and blow up the whole place,” Smith explained.

Precision was the rule. That included strafing, which Buchanan deemed to be precise. “From a pilot’s perspective, if I’ve got the right target underneath my pipper aiming device, my strafe and rockets are pretty good, very accurate. It’s all pilot technique,” he said.

By the time of the second Fallujah battle, the air component also had a new and effective weapon: the GBU-38. This 500-pound

bomb was the newest weapon in the satellite guided Joint Direct Attack Munition family. It allowed air strikes to precisely take out targets with a much smaller explosive package. Previously the precision JDAM seeker kit had been available only on 2,000-pound Mk 84 bomb bodies or 1,000-pound Mk 83s. USAF F-16s at Balad AB, Iraq, started flying with the GBU-38 in early fall 2004.

In eight days of deadly, intense fighting, Fallujah was “secure”—100 percent of it was passable for coalition and Iraqi forces, although sporadic fighting continued. However, subsequent enemy communications traffic suggested much of the top insurgent leadership had bugged out of Fallujah before the battle.

After November, the war in Iraq picked up pace. Smith recalled that by then there was a lot of activity in Baghdad and other parts of Iraq.

Locally at least, the success of the second battle of Fallujah bought years of peace. “Fallujah became a city,” said Smith. “Stores and restaurants reopened, people moved back in. For a long time it looked like the example for what an Iraqi city could be.”

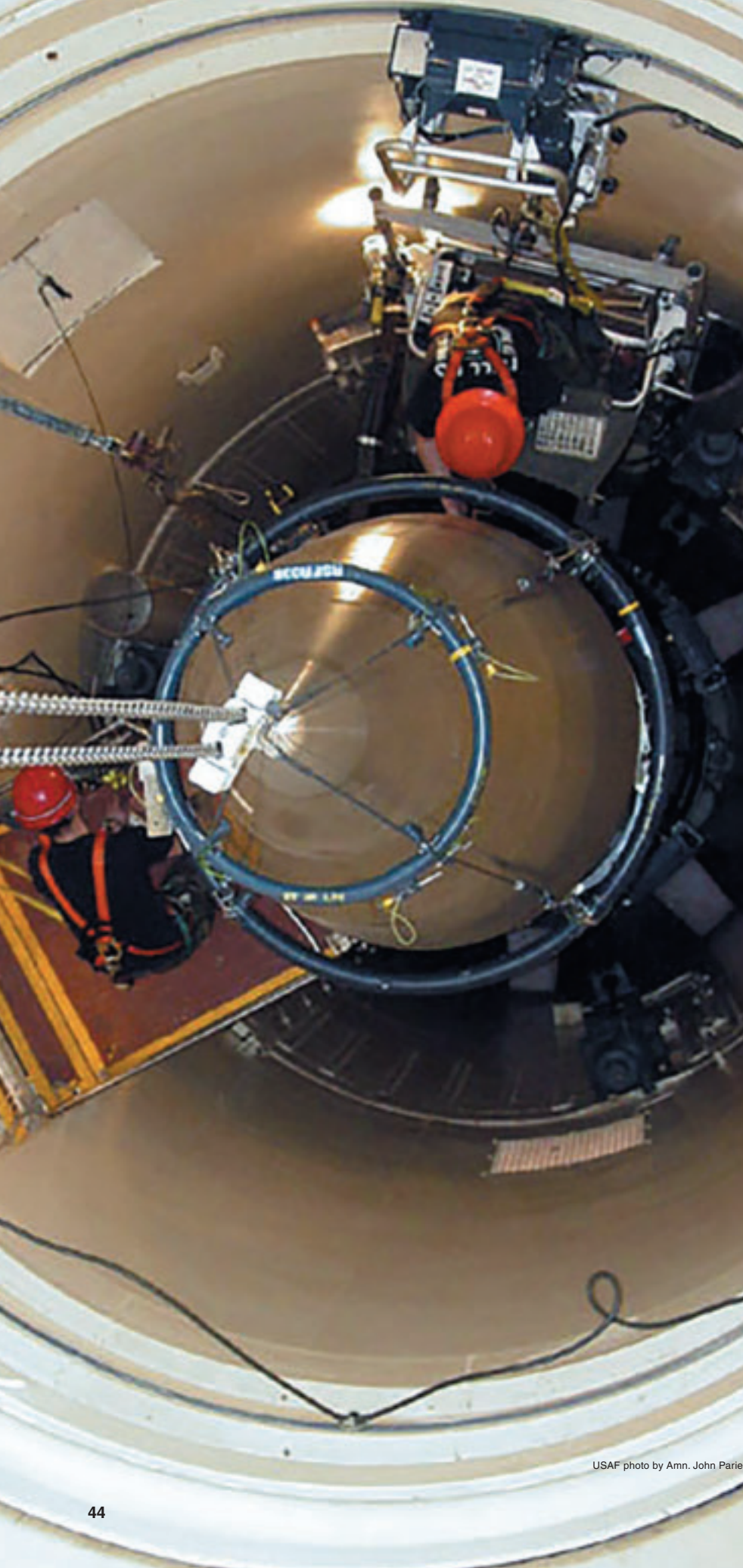
The improved air and ground cooperation in Fallujah taught the coalition valuable lessons in how to use its tremendous advantages in precision weapons and ISR. These gains altered the coalition’s method of operations as the Iraq War intensified and provided a stronger template for success in other battles from Anbar province to Baghdad to Basra. The battlespace pictures, precision targeting, and armed overwatch of ground forces by aircraft advanced a long way in Fallujah—and became standard operating practice in the years since.

Still, Casey’s comments at the start of the November 2004 battle held one last warning.

Fallujah, he said, would not be truly secure “until a well-trained Iraqi security force can take over the presence in Fallujah and maintain security so that the insurgents don’t come back, as they have tried to do in every one of the cities that we have thrown them out of.”

A decade later, those words still ring true. ■

Rebecca Grant is president of IRIS Independent Research. Her most recent article for Air Force Magazine was “How Many Aircrew?” in January.



USAF photo by Amn. John Parie

“System

Defense Secretary Chuck Hagel is “deeply troubled” by various allegations of cheating in both the Air Force and Navy nuclear communities, said Pentagon spokesman Rear Adm. John Kirby in early February.

Addressing such lapses of ethical behavior in the ranks is “an absolute top priority,” said Hagel, who added that there must be an “uncompromising culture of accountability” at “every level of command.”

“This is an interservice issue,” Hagel said. “This is an issue that cuts across all lines and commands. And that’s why I am putting this as a No. 1 priority for this institution.”

The issue first came to light in January when the Air Force’s nuclear community

Left: A missile maintenance team at Malmstrom AFB, Mont., removes the upper section of an ICBM for testing. Right: Defense Secretary Chuck Hagel speaks to airmen at F. E. Warren AFB, Wyo., during a visit to the base.



Systemic Problems”

Amy McCullough, News Editor

was once again thrust into the national spotlight after an Air Force investigation uncovered widespread cheating on a nuclear proficiency exam at Malmstrom AFB, Mont.

As of early February, nearly half of the roughly 190 missileers assigned to the 341st Missile Wing at Malmstrom had been implicated in the cheating scandal—that’s nearly three times the 34 initially implicated. Air Force Secretary Deborah Lee James said as of mid-February the investigation was still ongoing, though it was nearing completion.

Of the 92 officers involved, some 40 are suspected of actually cheating, said Lt. Gen. Stephen W. “Seve” Wilson, commander of Air Force Global Strike Command, in a late January briefing

with reporters at the Pentagon. The rest likely knew of the cheating and did not report it, he said.

“We do have systemic problems within the force,” noted James in the same briefing.

However, she also said the cheating scandal at Malmstrom centers around a “failure of integrity” among certain airmen, “not a failure of the mission.” At an Air Force Association-sponsored Air Force event in Arlington, Va., the day before, James said she is confident the nuclear “mission is strong” and it “remains safe, secure, and reliable.”

A few days later, however, the Navy announced a cheating scandal of its own.

Chief of Naval Operations Adm. Jonathan W. Greenert said on Feb. 4 that some 30 watch-standers at the Nuclear Power Training Unit in Charleston, S.C., allegedly cheated on a written qualification exam.

Adm. John M. Richardson, director of the Naval Nuclear Propulsion Program, told Pentagon reporters the same day that he had learned the exam was allegedly shared among senior enlisted operators after one sailor reported it to the command on Feb. 3.

Ability To Handle the Mission

“To say that I’m disappointed would be an understatement,” Greenert said during the same briefing. “Whenever I hear about integrity issues, it’s disruptive to our unit’s success, and it’s definitely contrary to all of our core values.”

Richardson emphasized that the alleged cheating involved propulsion reactors, not nuclear weapons.

The Air Force immediately revoked the certification of all those implicated in the investigation and the Navy did the same, removing those implicated from the site and revoking their access.

Air Force Global Strike Command retested roughly 500 ICBM crew members within 48 hours of learning of the cheating. The average score on that retake exam was 95.5 percent. Officials said it falls in line with the traditional average.

The Navy also planned to retest its personnel “to validate their knowledge,” said Richardson.

Yet, the scandals have caused many to question DOD’s ability to manage the world’s most powerful weapons.

The cheating scandal came to light as officials with the Air Force Office of Special Investigations looked into an illegal drug ring involving at least 13 Air Force personnel spanning at least six bases in the US and England. Some of those airmen under investigation were missileers.

During that investigation, it was discovered that a missile launch officer from the 341st Missile Wing allegedly sent the answers to a nuclear proficiency test last fall to other missileers via text message, Chief of Staff Gen. Mark A. Welsh III said.

In August, the same wing, which oversees 150 of the nation’s 450 Minuteman III ICBMs, received an unsatisfactory rating on a nuclear surety inspection after having made “tactical-level errors during one of several exercises conducted during the inspection,” according to an AFGSC news release.

Allegations of widespread cheating in the ICBM force have forced DOD to take action.



USAF photo by R. J. Orlez



USAF photo by Scott M. Ash

Secretary of the Air Force Deborah Lee James and Lt. Gen. Stephen Wilson, head of Air Force Global Strike Command, brief reporters on Jan. 30 at the Pentagon on the investigation into compromised testing at Malmstrom.

Although officials said the cheating appears to be limited to Malmstrom, in April the Air Force sidelined 17 launch control officers at the 91st Missile Wing at Minot AFB, N.D., after they received a poor, yet passing, grade in missile crew operations.

Within a few months, most of the 17 officers were able to return to duty after completing recertification training.

“The need for perfection has created a climate of undue stress and fear—fear about the future,” said James, who noted she was repeatedly told by airmen at all three ICBM bases that the “system can be very punitive,” offering few rewards for good behavior but severe punishments for anything less than perfection.

She said the Air Force also seems to have lost the distinction between training and testing. Missileers are required to score a 90 percent or higher to pass both proficiency exams and nuclear surety inspections, but many say anything less than 100 percent on every test will negatively impact their chances of promotion.

“In the current environment, there is no room for error ever,” said James. However, a training environment is supposed to facilitate learning, in which case mistakes can and will happen. James said this constant need for perfection “is wrong” and must be corrected.

Wilson has asked Lt. Gen. James M. “Mike” Holmes, vice commander of Air Education and Training Command, to lead an investigation into training and testing procedures at AFGSC. The investigation also will look into the leadership environment, said Wilson.

The goal, he said, is to identify the “root causes” that led so many officers at Malmstrom to either cheat or fail to report the cheating. Holmes was to report back to Wilson by the end of February, and Wilson

said he planned to take “deliberate and swift action” on whatever information Holmes brought forth.

Examining a Culture of Perfection

In addition, Wilson has implemented a “force improvement plan.” It is an “aggressive, action-oriented” grassroots effort “with the goal of making rapid and substantial changes to the ICBM mission,” states a Feb. 6 Air Force news release.

As part of the FIP, members of the ICBM community will help “identify challenges” and propose solutions, said Wilson.

Specifically, there will be a total of five functional cultural working groups—one from each of the following career fields: missile operations, security forces, maintenance, mission support, and helicopter operations, according to the release. Each FCWG team will be made up of lower-ranking airmen, junior and senior noncommissioned officers, as well as companygrade officers. They also will be augmented by experts outside the ICBM field, such as Navy submariners, bomber combat systems officers, or members of the 576th Flight Test Squadron and the 381st Training Group at Vandenberg AFB, Calif., states the release.

The teams were expected to visit each of the missile wings in February to determine what challenges exist for airmen in their respective mission areas and then report directly back to Wilson, who will make recommendations to James and Welch.

“Our nation demands and deserves the highest standards and accountability from the force entrusted with the most powerful weapons in the world,” said Wilson.

James echoed those sentiments, saying there must be accountability at all levels, not only for those implicated in the ongoing investigation, but also at the leadership level.

She said she wants the Air Force to re-evaluate its professional and leadership development within the career field and suggested the independent panel, which Hagel has ordered of the entire nuclear enterprise, could offer some suggestions in this area.

Hagel actually has asked for two reviews of the overall nuclear enterprise. In the first review, the Joint Staff and members of the Pentagon policy office will work together on an action plan to identify and fix any systemic personnel problems in the nuclear force, said Kirby in early February.

The second review will be led by former Air Force Chief of Staff retired Gen. Larry D. Welch and retired Adm. John C. Harvey Jr., a nuclear-trained surface warfare officer and former commander of Fleet Forces Command.

“They will offer their views on the quality and the effectiveness of the action plan, and they’ll also provide their insights and recommendations on addressing any systemic personnel problems in the nuclear force,” Kirby said.

James, however, wants to take that a step further. She said the Air Force must look at how its nuclear officers are commissioned, the training that is done at Vandenberg and whether there is an appropriate level of mentorship for those in the career field.

The Air Force also must go back to the basics and reinvigorate its core values within the nuclear community.

“Airmen have a responsibility, not only to act with integrity in their own actions, but also to report wrongdoing,” said James at the AFA podium. She noted there are both direct and indirect ways to report misconduct.

She said the Air Force’s wingman culture actually could be working against the missileers; those airmen she talked with had serious concerns about turning in their fellow airmen.

The Air Force must examine “incentives, accolades, and the recognition available to the nuclear force.” This could mean instituting incentive pay, offering scholarships, or creating a medal or ribbon for the nuclear force, she said.

Finally, the Air Force needs to put its money where its mouth is. James said she noticed a few leaky roofs during her visits to the ICBM bases and suggested the Air Force place a higher priority on military construction at those bases. She also suggested potentially raising manning levels.

“This is a lot about addressing people issues, and getting this done right for our people will be crucial,” said James. “I want to reassure everybody again that this ... was not a failure of the mission.” ■

By Robert S. Dudley

Hostage I

"I am going to fight to the death to protect the F-35 because I truly believe that the only way we will make it through the next decade is with a sufficient fleet of F-35s. If you gave me all the money I needed to refurbish the F-15 and the F-16 fleets, they would still become tactically obsolete by the middle of the next decade. Our adversaries are building fleets that will overmatch our legacy fleet.... I am fighting to the end, to the death, to keep the F-35 program on track. For me, that means not a single airplane cut from the program."—*Gen. G. Michael Hostage III, head of Air Combat Command, Defense News, Feb. 3.*

Hostage II

"It appears that I will be told I have to continue to purchase Global Hawks, and given the budget picture that we have, I cannot afford both the U-2 and the Global Hawk. I will likely have to give up the U-2. ... We are going to have to spend buckets of money to get the Global Hawk up to some semblance of capability that the U-2 currently has. ... As I lose the U-2 fleet, I now have a high-altitude ISR fleet that is not very useful in a contested environment."—*Gen. G. Michael Hostage III, Defense News, Feb. 3.*

Hostage III

"The A-10 [is] a weapon system I would dearly love to continue in the inventory because there are tactical problems out there that would be perfectly suited for the A-10. I have other ways to solve that tactical problem. ... That solution is usable in another level of conflict in which the A-10 is totally useless. ... I have to do something, and unfortunately, the something that is left is worse than cutting the A-10 fleet."—*Gen. G. Michael Hostage III, Defense News, Feb. 3.*

Fear and Loathing

"I believe, now, that we do have systemic problems within the [ICBM] force. I heard repeatedly ... that the need for perfection has created a climate of undue stress and fear—fear about the future; fear about promotions; fear about what will happen to them in their careers. ... A very terrible irony

in this whole situation is that these missileers didn't cheat to pass, they cheated because they felt driven to get 100 percent. Getting 90 percent or 95 percent was considered a failure in their eyes. ... This is not a healthy environment."—*Secretary of the Air Force Deborah Lee James, commenting on the cheating scandal in the missileer force, DOD press briefing, Jan. 30.*

The Commission Speaks

"The Air Force can, and should, entrust as many missions as possible to its reserve component forces. Transitioning missions from the active component to the reserve components will allow the Air Force to perform these missions with less expensive part-time Reservists while reducing the active component end strength, thus saving money in the military personnel accounts that can be put to use in readiness, modernization, and recapitalization accounts."—*Report of eight-member National Commission on the Structure of the Air Force, delivered Jan. 30.*

Let's Get Small—Again

"I feel quite certain we will become a smaller Air Force, but it will remain highly capable and on the cutting edge of technology, so we can always step up to the plate and meet the country's needs."—*Secretary of the Air Force Deborah Lee James, address to Air Force Association audience, Jan. 29.*

China, Space, and Danger

"The current and evolving counter-space threat posed by China to US military operations in the Asia-Pacific Theater and outside is extremely serious. And the threat ranks on par with the dangers posed by Chinese offensive cyber operations to the United States more generally. ... These dangers are acute because the US space systems ... are extraordinarily vulnerable and extraordinarily valuable at the same time."—*Ashley J. Tellis, former National Security Council specialist, remarks to joint session of two House Armed Services subcommittees, Jan. 28.*

Aw, Shoot

"On occasion, I did use profanity for emphasis, even sometimes out of frus-

tration, as did other members of my staff. But if I did use profanity, it was usually just one word, in private, in my office, with the door closed, and it was not derogatory, or directed at anyone. As an example, I have said things like, 'What the hell is going on?'"—*Now-retired USAF Maj. Gen. Stephen D. Schmidt, quoted in an Air Force Inspector General report alleging he was profane toward subordinates, Air Force Times, Jan. 29.*

All Hat, No Cattle

"Lately it seems that we have been reading many stories of misconduct among US military officers. ... The Robert Gates approach of finding someone to fire, whether or not the firee was even aware of whatever is the latest problem to become public, does not help. It makes the person doing the firing look decisive but offers no reason to believe that things will be better under new management. New management in the Air Force does not seem to have made much positive difference in behavior in the part of the service that handles nuclear weapons."—*Paul R. Pillar, former CIA official, now at Georgetown University, writing in The National Interest, Feb. 2.*

Here and Now

"The Department of Defense is being challenged in ways that I have not seen for decades, particularly in the Asia-Pacific region. Technological superiority is not assured. ... This is not a future problem. It is a here-now problem."—*Frank Kendall, undersecretary of defense for acquisition, technology, and logistics, House Armed Services Committee, Jan. 28.*

Probably Just Rumors

"It doesn't seem prudent [to] me for you to say the first thing you've got to do is cut soldiers' pay and benefits when you don't know if you can run the place a little bit better. ... We hear of just the unbelievable waste and fraud that goes on in the Pentagon."—*Sen. Joe Manchin (D-W.Va.), comment to acting Deputy Secretary of Defense Christine H. Fox and Adm. James A. "Sandy" Winnefield Jr., vice chairman of the Joint Chiefs of Staff, at Senate Armed Services Committee hearing, Jan. 28.*



Coming Home

By Merri M. Shaffer, Associate Editor

Reuniting families with the remains of their loved ones killed in combat is one of the Air Force's most sacred duties.

The 8,426-square-foot Fisher House at Dover AFB, Del., offers a place of comfort for military families going through one of their toughest moments: awaiting the return of the remains of a loved one who died in combat overseas.

Dedicated in November 2010, the Fisher House for Families of the Fallen serves a unique mission. Its nine suites provide lodging for the families to occupy at no cost as they prepare for that arrival. The house is located on Dover's Campus for Families of the Fallen.

"It is unique both in size and function," said David A. Coker, Fisher House Foundation president. "The last interaction with the service shouldn't be simply staying at a strip hotel," he said. "These families need to know there's a grateful nation."

The Fisher House Foundation is the private organization known for the homes it runs near major military and Department of Veterans Affairs medical centers in the United States

and Europe. Fisher Houses offer temporary free lodging to military families as their loved ones recover from serious wounds suffered in combat.

Families come to Dover at the Department of Defense's invitation to witness what DOD calls the "dignified transfer" of their loved ones. It takes place within 48 hours of notification of the death. But that's just one stop in the journey to return the fallen home and help bring closure to the families.

Dover's Air Force Mortuary Affairs Operations is charged with preparing the fallen for their final resting place. The mortuary's personnel give "dignity, honor, and respect to [the] nation's fallen and then [provide] care, service, and support to their families," said Col. John M. Devillier, AFMAO commander. Since its activation in January 2009, AFMAO has returned nearly 1,800 service members' remains from the wars in Iraq and Afghanistan.



USAF photo by 2nd Lt. Michael Gibson

The Remains Arrive

DOD assigns the highest priority to moving the remains of US military personnel back to Dover from the combat zone. Space for them is made on the first available aircraft, typically a 747, C-5 Galaxy, or C-17 Globemaster III, according to AFMAO.

When the remains arrive at Dover, a team of seven military personnel from the member's service carry them from the aircraft in an American flag-draped metal transfer case about 75 feet to a vehicle that transports them to the mortuary.

While AFMAO is rather new, its port mortuary's operations aren't. Established in 1958, the Dover Port Mortuary was a flight under the 436th Services Squadron. With the closure of the port mortuary at Travis AFB, Calif., in 2001, Dover became the sole remaining continental US military mortuary, with responsibility for handling the combat as well as mass casualty-incident deaths inside the United States.

The port mortuary has "always done dignified transfers for any of the fallen," but up until 2009, families could only come at their own expense, said Devillier. DOD instituted a "significant" policy change then that allowed families to travel to Dover at government expense, he said. This ramped up the workload of AFMAO staff and the logistical needs and support of the families.

"When the policy changed, only a small percentage of families were expected to travel to Dover, but today more than 85 percent come," said Devillier. "In fulfilling our mission of taking care of the fallen and their families, our operation has grown to include a family support team and facilities like the Center for Families of the Fallen and the Fisher House for Families of the Fallen to provide the much needed support and comfort to families."

The new policy also allowed members of the media to attend the transfers with the consent of the families.

Preparing the Remains

Approximately 80 military and civilian personnel work in the port mortuary, including Total Force airmen, marines, sailors, soldiers, and permanent-party licensed mortuary specialists.

Preparation of the remains—involving identification, embalming, dressing, and casketing—takes place at Dover's Charles C. Carson Center for Mortuary Affairs. This center, named after the Air Force civilian mortician who supervised mortuary remains preparations from 1971 to 1996, houses the port mortuary, mortuary affairs, and other operational support functions.

The Carson Center replaced the 48-year-old Dover Port Mortuary facility in 2003. At the center's entrance, a wall highlights the mortuary's more than half-century of operations. It lists the names of the conflicts and number of fallen whose remains the mortuary has handled over the years. This includes service members who died in the Vietnam War, the crew lost in the space shuttle *Challenger* explosion in 1986, and those killed during the wars in Southwest Asia.

Connected to the center by a series of hallways under the same roof is the Armed Forces Medical Examiner System, which comes under a different chain of command. AFMES leads the identification process and the autopsy. This occurs before the death certificate is issued, according to system officials.

All US military personnel remains arriving at Dover fall under the "believed to be" status until a medical examiner at AFMES positively identifies them, explained Lt. Col. Edward

USAF photo by SSGT. Carlin Leslie



A celebration of life ceremony was held Dec. 13, 2013, at the Air Force Memorial in Arlington, Va., for Col. Francis McGouldrick, who went missing in action on a mission over Laos in 1968.

Mazuchowski II, a forensic pathologist. That process, in most cases, requires about two to three hours.

Before the ID and autopsy, the transfer case is opened and the body bag

inside, called the human remains pouch, is passed through a rapid scanner to check for unexploded ordnance. Once the remains are cleared, the seal on the pouch is broken, an action that only a

Maj. Kevin Hopkins (l), an Air Force chaplain with Air Force Mortuary Affairs Operations, leads a prayer in honor of Army officers Lt. Col. Todd Clark and Maj. Jaimie Leonard at Dover AFB, Del., on June 12, 2013. The remains arrive at Dover in an American flag-draped metal transfer case and are met by seven military personnel from the member's service, who carry the case to a vehicle for transport to the mortuary.

USAF photo by Roland Balik



A Long-Missing Airman Laid To Rest



The flag-draped coffin was carried to the foot of the Air Force Memorial in Arlington Va., on the brisk morning of Dec. 13, 2013, lifted by the grandsons and great nephews of the honoree, Col. Francis J. McGouldrick Jr.

A ceremony was held there to honor the fallen airman, followed by the burial of his remains with full military honors that same day at nearby Arlington National Cemetery.

Forty-five years earlier to the date, the New Haven, Conn., native went missing in action at age 39 following a midair collision in Savannakhet province, Laos, during the Vietnam War. Then a major, he was serving as a navigator aboard a B-57E Canberra with seven crew members when the aircraft collided with a C-123 Provider during a night mission. McGouldrick was already the recipient of the Distinguished Flying Cross and Purple Heart, among other decorations.

None among McGouldrick's wife, mother, brother, or sister was able to take part in the memorial service and burial. Their deaths preceded all this winter's events. His four daughters, Marri, Megan, Melisa, and Michele, however, did get the closure of seeing their father's remains come home and be interred in a final resting place.

"We are very [proud] of our past conflicts mission," said Col. John M. Devillier, Air Force Mortuary Affairs Operations commander. The efforts required to bring home the remains of the nearly 1,500 airmen still missing in action from the Korean War onward require patience.

"It takes time to find those remains, to identify them. But one at a time, we are trying to bring all those airmen home to their families," said Devillier.

Between 1993 and 2004, there were several unsuccessful attempts to locate McGouldrick's crash site, according to the Defense Department's narrative of his recovery. Then in April 2007, a joint US-Laos team located a possible crash site near the village of Keng Keuk. From October 2011 to May 2012, American and Lao excavators found human remains and aircraft wreckage consistent with a B-57E there.

As typical with decades-old remains, Joint POW/MIA Accounting Command scientists and the Armed Forces DNA Identification Laboratory used circumstantial evidence and forensic identification tools, such as mitochondrial DNA, to help identify McGouldrick's remains.

DNA from the remains matched with McGouldrick's great nephew and niece, according to DOD.

"The McGouldrick family [case] was 10 years prior to putting shovels into the ground," said Allen Cronin, head of AFMAO Past Conflicts Branch. "It takes a long time. You've got to talk to the right people, get to the right place, and then hopefully get remains."

Though it took nearly half a century, an unyielding commitment to locate the crash site allowed McGouldrick to return home.

medical examiner can carry out, said Mazuchowski.

The contents of the pouch are photographed, including personal effects like wedding rings and cell phones, and archived. How the body arrived in the pouch and the initial viewing of the full body are documented. The personal effects are laid out and Joint Personal Effects Depot (JPED) personnel catalogue those articles. From there, the fallen service member is given "a unique medical examiner number" that stays with him or her throughout the process, said Mazuchowski. Then, the identification process continues.

With assistance from the FBI, the deceased is fingerprinted. The ID process also entails dental and full-body X-rays, computerized tomography scans, and DNA tests. The more complex cases can take longer, such as airplane crashes with multiple victims, whose remains may become commingled and require separation, said Mazuchowski.

Cases involving charred remains require the forensic pathologists to run more DNA samples to match remains with the right person. DNA samples are compared with those on record. Today, US military personnel give DNA samples during basic military training.

The autopsy is meant to learn the cause and manner of death. The remains are undressed and the examiner determines the wounds that may have contributed to the death. This helps to give the families a full account of how their loved one died.

The wars in Iraq and Afghanistan mark the first conflicts during which AFMES has done an autopsy on every US service member who has come through Dover, according to Paul Stone, an AFMES spokesman. "Evidence of DNA gives us the ability to do it," he said. "Families no longer just accepted the fact ... that their son or daughter died," he added. "They would want a more full account."

Iraq and Afghanistan represent the first long-duration wars where AFMES

has been able to identify every service member killed in action, said Stone. "DNA gave us that ability," he said.

The final autopsy report includes the personal information of the deceased (e.g., height, weight, age), along with the cause and manner of death.

Lessons From the Dead

The value of the autopsies does not end with a death certificate. AFMES now keeps a database of every autopsy report. DOD is applying the observations from the autopsies to help improve casualty care and influence the design of medical devices.

For example, autopsies of service members who had chest or lung trauma revealed that the thoracentesis needles



USAF Photo by Christin Michaud

also occurred without the family's knowledge or consent.

The investigation found cases where the mortuary dumped some remains of fallen service personnel in a landfill. This occurred in cases where the official shipment of the deceased's body had already been made to the family, and they had elected not to receive notification of subsequently identified remains.

Reverence, Dignity, Respect

The landfill practice followed a two-step process: The remains were cremated and then incinerated. A contractor disposed of any residual material in the landfill. Port mortuary operations received a firestorm of criticism when news of the process became public.

Testifying before the Senate Armed Services Committee in November 2011, then-Chief of Staff Gen. Norton A. Schwartz took responsibility for the situation, along with then-Secretary of the Air Force Michael B. Donley, and discussed the changes the Air Force was implementing. "In 2008, the Air Force came to the conclusion that that was not the best way to deal with those remains, and so it is now done in the traditional fashion of burial at sea," said Schwartz. "Our obligation is to treat our fallen with reverence and dignity and respect and to provide the best possible support and care for their families."

The retirement-at-sea procedure, first used by the mortuary in January 2011, takes place in partnership with the Navy and Coast Guard. The remains, ashes at this point, are placed in sea salt urns and cast into the water.

Future plans, however, include the construction of an ossuary for such remains. As of the end of 2013, Arlington National Cemetery officials were still in the process of identifying locations for this vault. An Army spokeswoman said there had been no decision yet on the location or the estimated completion date.

Devillier acknowledged that mortuary operations prior to AFMAO's activation had not had "the best media coverage."

"We have really made an effort to try to show folks that we really do know what we're doing here," Devillier said. "I'm very proud of what we do here."

AFMAO underwent its first Air Force Unit Compliance inspection in 2012, receiving an "excellent" rating,

Air Force Vice Chief of Staff Gen. Larry Spencer greets Lori Parrish, a volunteer with Friends of the Fallen, a local group that provides comfort and support to families coming to Dover.

medical personnel used as they fought to save their lives were, in many cases, not long enough. In fact, CT scans showed that more than 50 percent of those bodies had a greater chest-wall thickness than the length of these particular needles, used to insert tubes into the chest-wall cavity to remove fluid. "Information was pushed up to the Department of Defense and [Office of the Assistant Secretary of Defense for] Health Affairs, and a memo [came] back down to change the length of the needle," said Mazuchowski.

After the autopsies, AFMAO personnel prepare the deceased service members for transport to their final destinations, as determined by the families. Remains are embalmed before morticians reconstruct the faces and bodies for viewing, if possible.

"Our No. 1 goal is to make the remains viewable for the family, to help with closure," said Devillier. However, "every case is different," he said. "A gunshot wound is much different than an [improvised explosive device]. And an airplane crash is the worst of them all." Unfortunately, in some cases, "the family will never see the remains."

In AFMAO's dressing room, three walls are devoted to accoutrements, such as rank insignia, crests, unit patches, and service medals and ribbons. Deeper into the room are a set of cubbyholes. Based on family wishes, mortuary personnel will dress the

deceased in anything from a service uniform to a favorite pair of jeans, said Devillier. Each cubbyhole holds the attire and accoutrements for one service member.

In most cases, the last stop in the AFMAO is departures for casketing before the official sendoff, where the remains travel to their final resting place via air or hearse. Sometimes, however, that's not the end of the tale.

"Because of the nature of the conflict today and the widespread use of improvised explosive devices, the remains of many of our fallen are fragmented," said Lt. Gen. Darrell D. Jones, then deputy chief of staff for manpower, personnel, and services, at a Pentagon briefing in 2011. "We strive to return these fallen to their families as intact as possible."

Jones briefed reporters following the completion of a year-long investigation that the Air Force inspector general began in June 2010 into the handling of remains at the port mortuary. The probe resulted after whistleblowers came forward with concerns about remains being mishandled. The findings were troubling for many.

In two separate incidents, the port mortuary lost body parts of service members killed in action, and the families weren't notified.

In another case, personnel dismembered the body of a fallen marine so that it would fit inside a uniform. This

said Devillier. "AFMAO is preparing for its next level inspection in 2014, with the goal of exceeding our last inspection results."

Additionally, retired Army Gen. John P. Abizaid, former head of US Central Command, led an independent panel established in December 2011 by then-Secretary of Defense Leon E. Panetta to make recommendations for improvements. The Dover Port Mortuary Independent Review Subcommittee examined records and anecdotal evidence as far back as 1990. In its report, the panel presented 20 recommendations on how DOD, the Air Force, and Army could improve port mortuary operations.

Among them, it called on the Secretary of the Air Force to install an existing flag officer-level commander at AFMAO or to create a new flag officer-level command to oversee it. It urged the Secretary of Defense to direct the DOD IG to inspect port mortuary operations each year, along with its relationships with the AFMES, JPED, and the service's liaison units.

The panel saw the need for increased communication between AFMAO and AFMES and increased training. Of the 20 recommendations, nine were specific to the Air Force, said Devillier. "To date, eight of the nine have been completed, with the ninth focused on where AFMAO will be aligned under the Air Force hierarchy. This recommendation is in the final stages of being staffed, with an expected completion by the summer 2014," he said.

AFMES has evolved over the years as well. Based on a 2005 Base Realignment and Closure recommendation, AFMES relocated from Rockville, Md., to Dover in September 2011. Previously, its specialists would commute the 100 miles each way between Rockville and Dover, on a regular basis, to fulfill their tasks.

Extended Support

The extent of AFMAO's operations far exceeds preparations of the bodies. It includes logistical and ceremonial support for the families as they retrieve their loved ones and say their final farewells. AFMAO's Mortuary Affairs Division oversees payments due to families of the fallen, a task it handled as part of the Air Force Services Agency in San Antonio from 1993 to 2008 before AFMAO's creation. Soon thereafter, the division transferred to Dover and joined the other operations at the Carson Center.

The division's Past Conflicts Branch works to help bring closure to the

USAF photo by TSgt. Shane Heiser



One of the rooms available to families at the Fisher House, stocked with toys and games for the children and teens who stay there.

families. Branch officials work closely with the Honolulu-based Joint Prisoners of War/Missing in Action Accounting Command. JPAC conducts global search, recovery, and laboratory operations to identify unaccounted-for American service members. Branch officials become engaged after identification of the remains. AFMAO officials then sit down with the families to work on the steps for returning the remains to them.

"At that point, I sort of take off my government hat ... and I put on my funeral director hat because now I have to set up a funeral," said Allen Cronin, Past Conflicts Branch chief.

Cronin said he finds his role helping bring closure to the families rewarding. "I know it's a cliché, but I sometimes don't believe that they really pay me to do this job. The honor is much bigger than the paycheck will ever be," he said.

The branch is responsible for recovered airmen from the Korean War and afterward. The Army handles the coordination with families for those airmen returned from conflicts prior to the Air Force's founding in 1947.

Still Busier Than Wished

From January to November 2013, AFMAO handled 118 dignified transfers with 727 family members present. That total was 60 percent lower than in 2012 due to the end of war in Iraq and the drawdown in Afghanistan, Devillier said. The roughly 1,800 transfers since AFMAO stood up in 2009 involved 8,574 family members.

Fortunately, the mortuary affairs mission has the support of the local community and state.

"Ultimately all of us in Delaware take enormous pride in the sacred work done at the Air Force Mortuary Affairs Operations Center, and we want to be certain that the critical mission there is carried out in a manner that is nothing short of perfection," said Sen. Tom Carper (D).

In addition, Friends of the Fallen, a local community-based volunteer organization, is on-call to help the Families of the Fallen Support Branch of AFMAO. The group provides comfort to the families coming to Dover, ranging from a simple cup of tea to providing personal hygiene or specialty items the families might have forgotten in the rush to get to the base.

"We want our families to stay focused on why they are here, not on what they forgot to bring," said Karen Mordus, Friends of the Fallen president. "We do not counsel any family members; we do not give any grieving advice. We are simply there to provide a calm presence before they go to the flight line."

Ultimately it's a debt due to those who served this country and made the ultimate sacrifice.

"It is not my mission alone to handle the remains of our nation's fallen. It's not Team Dover's mission. It's not the city of Dover; it's not the state of Delaware's. It's our collective mission as a nation," said Devillier. "Less than one percent of our nation put on the uniform; less than one percent of 300 million people serve. ... We owe it to them." ■

Gates versus

Former CIA chief Robert M. Gates brought a very negative view of the Air Force with him when he took the job of Secretary of Defense. In his book, *Duty: Memoirs of a Secretary at War*, he describes USAF as “one of my biggest headaches”—a perception Air Force leaders were never able to turn around during his five-year tenure at the Pentagon. In the book, Gates sticks to his story about why he sacked the service’s top leadership and shot down the Air Force’s most important programs, but his memoir reveals he often based his decisions on cherry-picked facts.

During his tenure, Gates fired Secretary of the Air Force Michael W. Wynne and Chief of Staff Gen. T. Michael Moseley. He also killed the F-22 fighter, Next Generation Bomber, and Airborne Laser; delayed USAF’s new aerial tanker; and stymied an increase in USAF manning, all of which he boasts of in the book as “notches on my budget gun.” He complained of having to coax the Air Force to supply enough intelligence, surveillance, and reconnaissance assets to the war effort, famously saying

ponents, “I was convinced they were far less likely to occur than messy, smaller, unconventional military endeavors.” As a result, he moved to quash any programs like the F-22 that were meant to counter a world-class threat.

The services, Gates claims, yearned to “get back to training and equipping our forces for the kinds of conflict in the future they had always planned for.” They obsessed about big, set-piece conflagrations involving “massive formations,” instead of winning the wars at hand, he charges. The Air Force could only think in terms of “high-tech air-to-air combat and strategic bombing against major nation-states.” All branches, but particularly the Air Force, suffered from “next-war-itis,” Gates writes, claiming USAF was not championing the needs of troops in combat.

In a recent interview, Moseley told *Air Force Magazine* he thinks Gates suffered from “this-war-itis.”

“I think you have to be able to walk and chew gum at the same time,” Moseley said. “You have to do both: Fight today’s fight and prepare for the future. ... It’s not either-or.”

drone from the ground with a joystick was not as career-enhancing as flying an airplane in the wild blue yonder,” Gates says.

He recalls that when he was CIA chief in 1992, “I tried to get the Air Force to partner with us in developing technologically advanced drones,” but it “wasn’t interested because, as I was

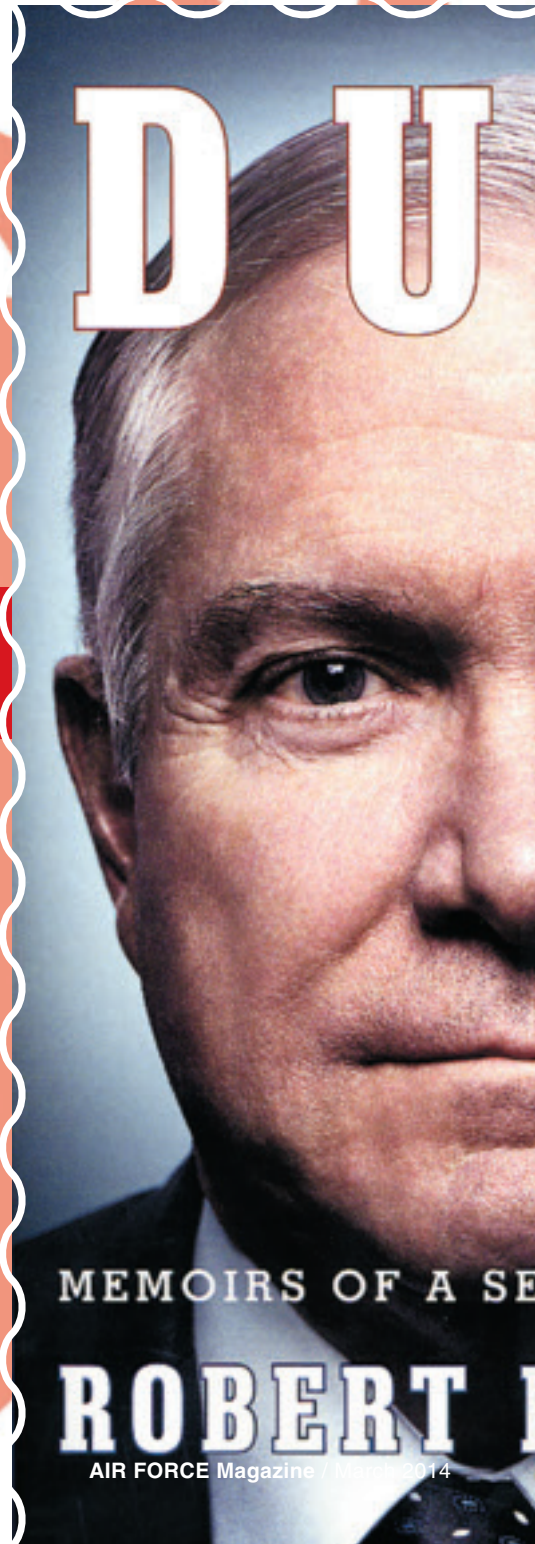
For former Defense Secretary Robert Gates, it was “one damn thing after another.”

it was like “pulling teeth.” In fact, the service had maxed out its ISR assets and was adding more at the limits of the manufacturer’s capacity—which Gates knew—but he kept up a public tirade against the service anyway, all the while ignoring the Army’s withholding of similar assets from the fight.

Gates’ feud with USAF started almost from the beginning, as a major subset of what he calls his “war on the Pentagon.” He asserts that he was “brought in to turn around a failing war effort” in Iraq and Afghanistan and was appalled at anything the services did that was not aimed squarely at that singular goal. He derides all the branches for treating the wars in Southwest Asia as “unwelcome aberrations, the kind of conflict we would never fight again—just the way they felt after Vietnam.” And while Gates claims to have backed some preparation for possible future wars against peer op-

Anxious to give fighting troops all the ISR they could possibly use, Gates said he “encountered a lack of enthusiasm and urgency” in USAF, where he’d served in his youth as a junior intelligence officer in Strategic Air Command.

The Air Force in 2007, he says, was dragging its feet in ramping up production of ISR “drones,” the ground stations needed to process their data, and in training pilots to fly them. He said USAF “insisted on having flight-qualified aircraft pilots—all officers—fly its drones,” unlike the Army, which used warrant officers and noncommissioned officers. Were it not for USAF’s cultural bias against enlisted people, Gates suggests, it could have found all the remotely piloted aircraft operators it needed in short order. Moreover, “the Air Force made it clear to its pilots that flying a



the Air Force

By John A. Tirpak, Executive Editor

told, people join the Air Force to fly airplanes and drones had no pilot.”

Wynne, in a 2008 interview with *Air Force Magazine*, said that when Gates left the CIA, “that was the ‘photograph’ he took with him” of USAF’s views on unmanned systems. However, when Gates became Defense Secretary, he apparently didn’t appreciate that in

the intervening 14 years, USAF had vaulted far into the lead on unmanned systems, developing the Global Hawk, arming the Predator, and upgrading to the A-10-sized Reaper. It was also pushing hard to shift the focus away from the number of unmanned aircraft to the amount of data each could pull in, developing wide-area surveillance systems like Gorgon Stare that could make one unmanned aircraft as powerful an ISR tool as six others.

Still, Gates charges USAF had just eight Predator combat air patrols in 2007 and “had no plans to increase those numbers; I was determined that would change.”

It was already changing, Moseley said. He’d gone to Gates asking for authority to gear up to build more Predator/Reaper-type aircraft and got it. Moseley then went to Thomas J. Cassidy Jr., head of General Atomics’ aircraft division (the Predator and Reaper manufacturer), and said, “Here’s the check. We’ll take all you can make.”

Gates cheered the development of the MQ-9 Reaper—an Air Force initiative he does not credit—but praised himself and his top lieutenants for maximizing its production and deployment.

Moseley also ratcheted up training of new RPA pilots, assigning pilots from other systems involuntarily. Moseley volunteered to close the unmanned aircraft schoolhouse and put all the instructors to work running combat missions—a move that “would have taken five or six years to recover from.” Nothing moved Gates, Moseley said. In his book, Gates says Moseley resisted speeding things up.

Part of the Air Force’s frustration was that the Army had hundreds of Shadow unmanned ISR aircraft, but these were slaved to the battalions owning them. When the battalions finished a deployment, they took their Shadows home and out of the fight.

Gates complains in the book that “of nearly 4,500 US drones worldwide, only a little more than half” were in Iraq and Afghanistan, but later acknowledges that most of these were in Army hands. Wynne, in the 2008 interview with *Air Force Magazine*, said of the acrimony, “He didn’t beat up the Army, which

had almost a thousand Shadows. He beat up the Air Force, which had about 100 Predators.”

All this led to what Gates describes as an “unseemly turf fight” with the Army and Navy wherein the Air Force sought to be the executive agent for unmanned aircraft, organizing their development and production and portioning them out to various users for maximum efficiency.

“The Army resisted, and I was on its side,” Gates says, claiming the Air Force was “grasping for absolute control of a capability for which it had little enthusiasm in the first place.” Gates says he “loathed” this kind of interservice rivalry, and “I was determined the Air Force would not get control.”

Gates admits that each service “was pursuing its own programs” in unmanned aircraft and that “there was no coordination in acquisition, and no one person was in charge to ensure interoperability in combat conditions.” Plus, the undersecretary of defense for intelligence, the director of national intelligence, and the CIA “all had their own agendas. It was a mess.”

Moseley observed, “That’s a recipe for having an executive agent. He just made the case for it.” Moseley noted that there was a practical reason for placing one entity in charge: Medium altitude unmanned systems fly in the same airspace as manned aircraft. If their operations are not centrally controlled, there is a persistent risk of collision. It happened on more than one occasion—in one instance, a C-130 collided with an RPA—but luckily, no one was killed.

Adm. Edmund P. Giambastiani Jr., vice chairman of the Joint Chiefs and the head of the Joint Requirements Oversight Council, agreed with the Air Force. He sent a memo to Gates’ deputy Gordon England in July 2007, saying the JROC endorsed executive agency for unmanned systems operating at medium and high altitude to the Air Force. USAF was to “standardize” and “streamline acquisition” of these systems, but all the services would still get to define their own requirements for them.

Gates, lobbied hard by the Army, overruled the JROC and did not give the Air Force executive agency. Instead, he



allowed various RPA committees to be formed. They were supposed to coordinate service unmanned aircraft efforts, but these were staffed by low-ranking officers with no clout. They remain relatively powerless today, and unmanned aircraft remains an every-branch-for-itself enterprise.

Moseley said, "I believe he [Gates] did not take the time to understand" the issue and that he was simply settling an old grudge. Asked what that grievance might be, Moseley said Gates had once related that when Gates was a young lieutenant in SAC, "he worked for some cigar-chomping fighter pilot who ... I guess didn't give him the recognition or praise he thought he was entitled to," Moseley said.

Off With Their Heads

At an exit briefing for President George W. Bush by the Joint Chiefs in 2008, Gates says the new Air Force Chief of Staff, Gen. Norton A. Schwartz, "reported that the Air Force would grow from 300 UAV pilots to 1,100, underscoring that the service had finally embraced the future role of drones."

The meeting concluded, Gates says, with Bush noting that "he didn't think the current strategy of being able to fight two major regional conflicts at once was useful any longer because we 'likely won't have to do that.' He [Bush] went on, 'If that is the standard for readiness, we'll never be ready.'"

The origins of Gates' decapitation of the Air Force's top leadership clearly lie with the F-22. Gates was irred that "every time Moseley and Air Force Secretary Mike Wynne came to see me, it was about a new bomber or more F-22s." Both were important, Gates admits, though he says "neither would play any part in the wars we were already in."

He discounts a majority of studies—most conducted outside the Air Force—that found that a minimum of 250 and probably 381 F-22s were needed to meet national strategy and cover the needs of the combatant commanders. Gates had described the fighter as "exquisite" but unnecessary and faulted it for having "not flown a single combat mission" against the airplane-less Taliban and al Qaeda. Had that logic been applied across the board, submarine-launched ballistic missiles and the entire Marine Corps amphibious capability would have to be scrapped as well.

Gates was convinced there would never be a war with China. In such a fight, he says the F-22's potential Pacific bases "in Japan and elsewhere" would be destroyed, making the jet irrelevant. He blames "virtually every Defense Secretary except me" for cutting the F-22 buy from an original, Cold War plan of 750 of the stealth jets. He simply delivered the coup de grace. Gates also argues the F-35 was coming along, and was comparable to the F-22 in the air-to-air mission. Not even Lockheed Martin, maker of the two jets, makes such a claim.

As part of his anti-F-22 campaign, Gates invoked the need to thwart the profiteering evil military-industrial complex and asserted that the Raptor would be overkill in any fight. He also said that intelligence informed him that China would not have a competing stealth fighter until the early 2020s, at the earliest. Gates does not comment on the irony of how, while he was on a 2010 trip to China, that country allowed photos revealing its J-20 stealth fighter's first flight to circulate on the Internet.

In his quest to divert resources to winning the wars in Iraq and Afghanistan, Gates needed money to rush thousands of mine-resistant, ambush-protected vehicles into production. Moseley suggested that the F-22 was a convenient bill-payer for the MRAP, which initially cost \$25 billion but wound up costing almost twice that.

Wynne and Moseley both were pushing for the F-22 against Gates' wishes, and Wynne said in a July 2008 interview with *Air Force Magazine*, "We were winning in Congress" and in the court of public opinion. "Our arguments were resonating," he said.

In a press conference on the day he left office, Wynne said "I advised the Secretary that I was not with him in the F-22 budget," nor was he a supporter of joint basing, which Wynne later said would result in USAF paying a lot of housekeeping bills for the other services. Wynne said he and Moseley had also "kind of told everybody that we needed to change the ... number of people that we had [from] ... 316,000 up to about 330,000. ... So there were differences [of opinion] that accrued."

Wynne was philosophical about the firing, saying Gates had every right to sack him if Wynne wouldn't back Gates on the budget.

"When your boss feels like it's time for you to go, he gets to pick the time and place," Wynne told the reporters. "It's business, it's not personal."

Still, Gates couldn't afford to let the firing of Wynne and Moseley seem like simply a difference of opinion, when Gates was not the expert. The excuse to get rid of Wynne and Moseley had to be something no one could argue with. Gates saw his opportunity in an August 2007 incident involving nuclear weapons.

In that incident, weapons unit airmen at Minot AFB, N.D., mistakenly loaded live nuclear missiles on a B-52 bomber, and the bomber crew failed to recognize that these were not the typical training rounds. The missiles were then flown to Barksdale AFB, La. The error was not detected for hours.

It was a serious breach of nuclear protocols.

The following spring, it came to light that Minuteman missile nose cones had been mistakenly shipped to Taiwan, two years earlier.

"There were no nuclear weapons in the shipment," Gates acknowledges, failing to mention that it wasn't the Air Force that had sent the mislabeled parts to Taiwan (which returned them when it saw they weren't the helicopter parts that had been ordered). Instead, it was the Defense Logistics Agency that had sent the parts, and Gates knew that. However, he sent a baffled Wynne out before the press with only 20 minutes' warning to explain the foul-up.

At the press conference, one of the reporters even asked, "Why isn't the DLA director here? This doesn't seem like an Air Force issue; it's a DLA shipping issue." Service officials at the time described it as "a setup."

Moseley said that after an early briefing on the Minot incident, Gates was uninterested in the details.

"He only wanted to know, 'How many generals are you going to fire?'" Moseley said. Though it was "a local problem," Moseley added—resulting initially in the punishment of three colonels and four NCOs—Gates wasn't satisfied with that retribution.

Gates had asked for a report from former Chief of Staff retired Gen. Larry D. Welch about the health of the Air Force nuclear mission soon after the Minot incident. Welch replied that a cultural "devaluation" of the nuclear enterprise had taken place in USAF, and the mistaken transfer was a symptom.

A month later, the Taiwan shipment story broke. Gates linked the two and put Adm. Kirkland H. Donald to work on a report to assess what had happened. Gates asked Donald

for a recommendation about who should be “held accountable ... at any level.”

Donald reported “nothing nefarious had taken place” and that the “safety, security, and reliability of our nuclear arsenal were solid,” Gates admits in his book. But “it seemed to me, I told Donald,” that the standards of the old Strategic Air Command were not being observed. Donald “heard me out patiently,” and then Gates, apparently having convinced himself, announced that both incidents “have a common origin: the gradual erosion of nuclear standards and a lack of effective oversight by the Air Force leadership.” He then proceeded to fire Wynne and Moseley—the first time a service Secretary and Chief of Staff had ever been fired simultaneously.

Training, Schmaining

However, Moseley said he’d already long since briefed Gates on Moseley’s concern that the furious pace of operations in Iraq and Afghanistan were hurting USAF standards of readiness in the large. Because “we had been at war for 18 years” enforcing the no-fly zones over Iraq and going without a break into Operations Enduring Freedom and Iraqi Freedom, operational readiness inspections had been either canceled or curtailed because “our fighter and bomber units had deployed so much,” he said.

“The thinking was ... why practice this stuff when we’re doing it for real?” Moseley said. It was believed by commanders that combat operations were a de facto substitute for the stressful ORIs, Moseley said. However, he was “uncomfortable” that many of the aspects of preparing for an ORI—such as exercising in chemical/biological warfare gear and getting ready for a major, whole-wing deployment to somewhere other than Southwest Asia—were not being practiced.

“If you don’t do that, you miss things ... ignore steps ... lose discipline, get comfortable and ... complacent,” Moseley said.

He reported discussing these concerns with the major command chiefs and that moves were underway to re-institute the strict and formal ORIs, both announced and unannounced, when the Minot issue flared up. Gates had been kept informed, Moseley said; Gates still insisted that Wynne and Moseley had been oblivious or uninterested in any such problems in the nuclear enterprise.

Though he “always believed firing someone or asking for a resignation should be carried out face-to-face,” Gates writes, he delegated the task of sacking Wynne and Moseley to his deputy, England. The firings “stunned the Air Force,” Gates says, but “there were no dire repercussions.”

Gates says “There would later be allegations that I fired the two of them because of their foot-dragging on ISR, or more commonly, because we disagreed on whether to build more F-22 combat aircraft, or on other modernization issues. But it was the Donald report alone that sealed their fate.”

Gates commissioned yet another study of how to move forward on the nuclear situation, to be headed by former Defense Secretary James R. Schlesinger. He produced two reports: one about reinvigorating the Air Force nuclear enterprise and one about the overall DOD nuclear mission. Gates accepted and implemented the Air Force-related recommendations. But “the Schlesinger panel identified further problems, including neglect in the Office of the Secretary of Defense,” Gates writes.

Months later, Gates presided over the firing or reprimand of six Air Force generals and nine colonels in the chain of command related to the Minot and Taiwan incidents.

A comparably serious incident involving the nuclear Navy warranted no personal attention from Gates. Navy technicians aboard the USS *Hampton* nuclear submarine had falsified records of reactor inspections just a few months earlier. Only a commander and some seamen—no admirals—were disciplined for that incident, which involved criminal acts rather than a mistake.

After the firing of Wynne and Moseley, Gates nominated Schwartz, head of US Transportation Command, to be the new Chief of Staff. Perhaps to make a point about the F-22, Gates chose a non-fighter pilot for the job—and one who had been in mostly joint jobs for a long time. At the time of his nomination, Schwartz had come from a string of joint assignments as head of TRANSCOM, the head of Alaska Command, and jobs on the Joint Staff and Special Operations Command. It had been many years since Schwartz had been in a position to directly advocate for Air Force programs.

“To my surprise,” Gates writes, Schwartz’s nomination ran into trouble. A number of senators felt Schwartz had been evasive or deceptive in his previous dealings with them. A key incident, Gates says, involved Schwartz’s 2003 rebuttal of Army Chief of Staff Eric K. Shinseki’s famous assertion that an Iraqi invasion and occupation would require hundreds of thousands of troops. Schwartz had said the next day that the number would depend on the circumstances. Donald H. Rumsfeld, Gates’ predecessor, and Rumsfeld’s deputy, Paul Wolfowitz, were furious that Shinseki had suggested an invasion force and cost far in excess of what they were telling Congress. Ultimately, Shinseki’s numbers proved prescient.

Schwartz “did not reveal that Rumsfeld had specifically given instructions that no one testifying should speculate on troop numbers,” Gates writes. He walked Schwartz through a special meeting with the senators to allay their concerns, and quotes Senate Armed Services Committee Chairman Carl Levin (D-Mich.) as saying Schwartz’s nomination would have failed without the meeting.

Gates writes that he told the senators “that not to confirm [Schwartz] would be a disaster for the Air Force, that the bench was thin, and there was no obvious alternative.”

There were at that time a dozen other four-star Air Force generals serving, nearly all of whom had been forwarded for Senate confirmation in those posts with Gates’ endorsement.

Gates offers a singular compliment to the Air Force in his book, saying the service “was making an invaluable contribution to the war effort by providing close air support to ground troops under fire, in medical evacuations, and in flying huge quantities of materiel into both Iraq and Afghanistan,” all of which met his priority of supporting ground troops. But it becomes backhanded praise when he adds that this performance made it all the more “puzzling” that the service couldn’t “think outside the box” in its alleged lackadaisical attitude toward increasing the amount of ISR it provided to the joint force.

While he ultimately reversed himself on the new bomber—albeit adding a seven-year delay to the program—and put the Air Force back to work on the tanker after adding years more to that timeline, his termination of the F-22 is having lasting impact. Air Combat Command leaders frankly assert that the F-22 force’s size is “pitiful” and insufficient when measured against national strategy and combatant commander requirements. And, at best possible speed, the new tanker program won’t deliver aircraft fast enough to prevent KC-135s from serving past their 80th year. ■

DOD

Senior Leadership

KEY:

ASD Assistant Secretary of Defense
 ATSD Assistant to the Secretary of Defense
 DASD Deputy Assistant Secretary of Defense
 DDI Director for Defense Intelligence
 DUSD Deputy Undersecretary of Defense
 PDUSD Principal Deputy Undersecretary of Defense
 USD Undersecretary of Defense

Compiled by Chequita Wood, Media Research Editor

(As of Feb. 14, 2014)



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 Chuck Hagel



Deputy Chief
 Management Officer
 Kevin J. Scheid
 (acting)



General Counsel
 Stephen W. Preston



ASD, Legislative
 Affairs
 Elizabeth L. King



ASD, Public Affairs
 Rear Adm. John Kirby



Deputy Secretary
 of Defense
 Christine H. Fox (acting)



ATSD, Intelligence
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 Michael H. Decker



Dir., Administration
 & Management
 Michael L. Rhodes



Dir., Cost Assessment
 & Program Evaluation
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Dir., Net Assessment
 Andrew Marshall



Dir., Operational
 Test & Evaluation
 J. Michael Gilmore



Inspector General
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PDUSD, ATL
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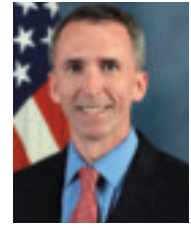
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US Special Operations Command
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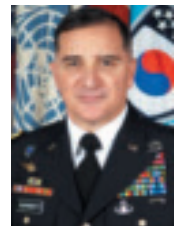
Top Subunified Commands



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Gen. Keith B. Alexander, USA



US Forces-Afghanistan
(Reports to CENTCOM)
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Long after the United States pulled out of Vietnam, the memory of the conflict hung over the nation like a cloud. The armed forces left 58,178 dead there in the first war the US had ever lost—and which the nation did not fight to win.

The war was micromanaged from Washington, where political leaders—fearful of escalation that might draw in China or the Soviet Union—imposed all sorts of crippling restrictions. The enemy operated from sanctuaries that US forces were not allowed to strike. The conflict dragged on, prosecuted with varying intensity, until 1973 when the US declared “peace with honor” and withdrew.

The national consensus was that the nation should never again be drawn into such an open-ended conflict so lacking in direction and commitment. A new term, the “Vietnam syndrome,” described a situation in which the armed forces supposedly were left combat shy by the defeat in Vietnam.

The War Powers Resolution of 1973 curtailed the President’s authority to send forces into areas of “hostilities” without a declaration of war or statutory authorization, except in cases of dire national emergency. Even then, the action had to be terminated within 60 days unless it was extended by Congress.

In a campaign speech in 1980, presidential candidate Ronald Reagan said, “For too long, we have lived with the Vietnam syndrome.” Moments later, however, Reagan added that “there is a lesson for all of us in Vietnam. If we are forced to fight, we must have the means and the determination to prevail or we will not have what it takes to secure the peace. And while we are at it, let us tell those who fought in that war that we will never again ask young men to fight and possibly die in a war our government is afraid to let them win.”

Caspar Weinberger, nominated by Reagan to be Secretary of Defense, picked up the theme in Senate confirmation hearings in January 1981, declaring that the United States should not go to war unless vital national interests were at stake.

Weinberger famously codified his position in a speech at the National Press Club Nov. 28, 1984, when he announced “six major tests to be applied when we are weighing the use of US combat forces abroad.”

Forces should be committed, he said, only if (1) vital national interests are at stake; (2) the nation is prepared to commit enough forces to win; (3) clear political and military objectives have been established; (4) forces are sized

to achieve those objectives; (5) there is reasonable assurance of support of American people and Congress; and (6) other options have been exhausted before US forces are committed as a last resort.

Weinberger said he was charting a course between two extremes. “The first—undue reserve—would lead us ultimately to withdraw from international events that require free nations to defend their interests from the aggressive use of force,” he said. “The second alternative—employing our forces almost indiscriminately and as a regular and customary part of our diplomatic efforts—would surely plunge us headlong into the sort of domestic turmoil we experienced during the Vietnam War, without accomplishing the goal for which we committed our forces.”

It was dubbed the “Weinberger Doctrine” two days later in a *Washington Post* editorial. “In a sense, Mr. Weinberger is simply distilling the post-Vietnam consensus,” it said.

The Weinberger

A terrorist truck filled with explosives destroys the Marine Corps barracks at the airport in Beirut, on Oct. 23, 1983. The attack killed 243 Americans. Above right: Rescuers comb through the rubble of the barracks.

“Secretary Weinberger has not ended the debate on these essential questions, but he has reopened it in a serious and stylish way. His speech now becomes the central text to which the others must respond.”

Scorn From the Commentators

The Weinberger Doctrine was well-received in the armed forces but the prevailing reaction from columnists and commentators was disdain and ridicule. In a satirical piece in the *Chicago Tribune*, Michael Kilian portrayed Weinberger as “in search of the lovable war.” In the *New York Times*, William Safire accused Weinberger of advocating only the “fun wars” and promulgating a “hunker-down, lash-out doctrine.”

Syndicated columnist Ben Wattenberg, a former speechwriter for President Lyndon B. Johnson, said Weinberger “has surfaced a naïve, dovish, and dangerous idea that has been simmering in the Pentagon.” James McCartney in the *Philadelphia Inquirer* leapt to the strange conclusion that “when a Defense Secretary talks about going all out to ‘win’ wars nowadays, it should be remembered that he could be raising the specter of nuclear war.”

Political critics weighed in, too. J. William Fulbright, former chair-

Photo by SSGT. Randy Gaido



Doctrine

By John T. Correll

THIRTY YEARS LATER, IT IS STILL THE YARDSTICK AGAINST WHICH THE USE OF FORCE IS MEASURED.

USMC photo





Defense Secretary Caspar Weinberger holds a press briefing at the Pentagon in 1981.

man of the Senate Foreign Relations Committee, writing with professor Seth Tillman in the *New York Times*, said that Weinberger's tests were "so broad and subjective" that "it is hardly likely they would have posed a serious obstacle to our involvement and escalation in Vietnam."

Leslie Gelb, who had been study director for the Pentagon Papers in the 1960s, said in a *New York Times* op-ed, "The Secretary's was a classic statement of the traditional military point of view—black and white, win or lose—as against the blurred and gray world of the diplomat."

Army Times, a newspaper attuned to a different constituency, saw it from another perspective: "In his speech, Weinberger showed that he, at least, has learned the crucial lesson of the Vietnam War: that military force should never be used in a half-hearted pursuit of ill-defined ends. It is a lesson that must be etched in the consciousness of America's political leaders as indelibly as the inscriptions of the 58,000 names on the Vietnam Veterans Memorial."

The principal opponent of the Weinberger Doctrine (and Weinberger's great rival in the Reagan cabinet) was Secretary of State George P. Shultz. He did not mention Weinberger directly in a speech in December 1984 but his

intent was clear to all. There are many instances in which military power can be used legitimately, Shultz said, and "there is no such thing as guaranteed public support in advance."

Reagan, Weinberger, and Shultz

Weinberger and Shultz had locked horns previously over the use of US marines as part of a multinational peace-

keeping force in Lebanon. Against the advice of Weinberger and the Chairman of the Joint Chiefs of Staff Gen. John W. Vessey Jr.—and at the urging of the National Security Council staff and the State Department—a contingent of 1,200 marines deployed in 1982 to the Beirut airport in the middle of a complicated civil war.

The NSC staff, Weinberger said, seemed to "spend most of their time thinking up ever more wild adventures for our troops." Weinberger and the Joint Chiefs wanted to bring the marines home soon, pointing out that they had no defined objective in Lebanon and no mission other than providing a military presence.

Reagan backed Shultz rather than Weinberger, and the marines were still in Beirut on Oct. 23, 1983, when a terrorist truck bombing of the barracks at the airport killed 241 Americans. The attack was carried out by elements of what would become the Hezbollah Islamic militant group.

The remaining marines were withdrawn, over Shultz's objections. In October 1984, a year after the Beirut truck bombing, Shultz said the United States had to maintain "the capability to act on a moment's notice. There will be no time for a renewed national debate after every terrorist attack. We may never have the kind of evidence that can stand up in an American court of law, but we cannot allow ourselves to become the Hamlet of nations, worrying endlessly over whether and how to respond."

AP photo by Dennis Cook



Lt. Gen. Colin Powell (r) speaks at a ceremony for outgoing Defense Secretary Weinberger (l) in November 1987 as President Ronald Reagan (c) listens. At the time, Powell was Reagan's nominee for National Security Advisor.



AP photo by J. Scott Applewhite

That set the stage for Weinberger's Press Club speech a month later, in which he declared the six tests for committing US forces to combat. Shultz took a final shot in his memoirs, published in 1993, in which he said the Weinberger Doctrine "was the Vietnam syndrome in spades, carried to an absurd level, and a complete abdication of the duties of leadership."

For his part, Reagan later said that "the sending of the marines to Beirut was the source of my greatest regret and my greatest sorrow as President," and he listed a set of principles "to guide America in the application of military force abroad." They were a close paraphrase of the Weinberger Doctrine.

The "Powell Doctrine"

The Gulf War of 1991 met the conditions of the Weinberger Doctrine completely. Persian Gulf resources had been defined as vital to the US since January 1980 when President Jimmy Carter pledged we would defend our interests there "by any means necessary, including military force." In contrast to the uncertain gradualism that characterized the Vietnam War, US forces began Operation Desert Storm with adequate strength to achieve the clear objectives assigned. The Gulf War not only had the support of public opinion and Congress but also the backing of the international community.

The Chairman of the Joint Chiefs of Staff in 1991 was Gen. Colin L. Powell, who had been Weinberger's military

assistant. Weinberger had asked him to take a look at the Press Club speech in draft and Powell went along with him on the day he delivered it. Powell agreed with Weinberger on all points.

Writing about the Gulf War in the *New York Times* in 1992, Powell said, "The reason for our success is that in every instance we have carefully matched the use of military force to our political objectives. President Bush, more than any other recent president, understands the proper use of military force. In every instance, he has made sure that the objective was clear and that we knew what we were getting into. We owe it to the men and women who go in harm's way to make sure that their lives are not squandered for unclear purposes."

Increasingly, the underlying concepts were spoken of as the "Weinberger-Powell Doctrine" or even the "Powell Doctrine." According to *Washington Post* reporters Rick Atkinson and Bob Woodward, Powell contributed what they called the element of "invincible force" in a combination described as "Weinberger Plus." Powell himself usually referred to it as "decisive military means."

One of the first to completely cross the line in terminology was political-military theorist Edward N. Luttwak, writing in the *Los Angeles Times* Nov. 10, 1992. He said, "The Powell Doctrine is an extreme case of bureaucratic self-protection" and that Powell "insists that the United States should send its forces into danger only if there is a perfectly clear-cut combat goal and overwhelming

Powell, then Chairman of the Joint Chiefs of Staff, visits an air base in Saudi Arabia in 1990. The 1991 Gulf War fully met Weinberger's six tests, which Powell supported.

force to achieve it."

It is questionable whether Powell's point about decisive military means/overwhelming force constituted a new doctrine or if it was an amplification of the "sufficient forces to win" prescribed by Weinberger. Powell did not otherwise add to the conditions for use of force.

In the run-up to the 1996 presidential election, Powell's opponents, seeking to block his nomination as the Republican candidate, misconstrued the Weinberger Doctrine as weak and timid, relabeled it the Powell Doctrine, and used it as an instrument in a "Stop Powell" movement. It was nothing but a contrived political convenience, but it contributed to the myth that the famous conditions for use of force had been established by Powell.

Sending Signals

The doctrine, by whatever name, came under intense attack when the Clinton Administration took office in January 1993. The new Secretary of Defense was Les Aspin Jr. Previously, when he had been chairman of the House Armed Services Committee, Aspin drew a distinction between two schools of military employment, which he described as "Limited Objectives" versus "All or Nothing."

The All-or-Nothing school "says that if you aren't ready to put the pedal to



Secretary of State John Kerry (l) and Russian Foreign Minister Sergey Lavrov go separate ways after greeting each other at the US Ambassador's residence in Paris, France, Jan. 13. Kerry had previously speculated about a small, "very limited" war to punish Syria's Assad regime.

the holy month of Ramadan would be profoundly offensive.

The Doctrine in Disrepute

After Powell retired, his views and Weinberger's were challenged more often by factions in the armed forces. In 1995, Thomas Ricks reported in the *Wall Street Journal* that some senior officers in the Pentagon, especially in the Navy and the Marine Corps, were unhappy with the Powell Doctrine. "Those lesser sorts of military engagement to support diplomacy historically have been specialties of the Navy and the Marines," Ricks noted.

Jeffrey Record, a former congressional staffer who had joined the faculty of the Air War College, was a frequent critic. In "Weinberger-Powell Doctrine Doesn't Cut It" in the Naval Institute's *Proceedings* magazine in 2000, Record called the doctrine "simplistic and flawed" and said there was "no consensus of what constitutes vital national interests. ... A distinguishing feature of great powers is that they are prepared to threaten and even go to war on behalf of nonvital interests for such purposes as demonstrating credibility and maintaining order."

Popular author Max Boot said, "So few missions short of World War II satisfy the Powell checklist that, if strictly applied, it becomes a recipe for inaction." Among those continuing to support the Weinberger Doctrine were the Air Force Association and its journal, *Air Force Magazine*.

When airliners hijacked by terrorists crashed into the World Trade Center, the Pentagon, and a field in rural Pennsylvania in September 2001, the case for use of force in Afghanistan was indisputable. There was less certainty when the effort was redirected to Iraq in 2003, especially after the main justification, the assumption that Iraq was preparing weapons of mass destruction, was found to be mistaken. Over the next several years, the Global War on Terrorism evolved to include an emphasis on nation building in Iraq and Afghanistan.

A major assumption of the new National Defense Strategy in 2005 was that irregular warfare—terrorism, insurgency, and other nonconventional conflict—had become the dominant form of likely engagement for US forces.

In 2010, Adm. Michael G. Mullen, the Chairman of the Joint Chiefs of Staff, said, "We must not look upon

the floor don't start the engine," Aspin said, predicting that "things are going to tilt future debates somewhat in the direction of the Limited Objectives school." In a news release from the Armed Services Committee, Aspin said, "People may not be willing to pay \$250 billion or even \$200 billion a year for a military that is not very useful. It may be that to maintain a military for the extreme contingencies, it will be necessary to show that it is useful for the lesser contingencies, too."

Aspin's looser approach led to disaster in Somalia in 1993 (the notorious "Black Hawk Down" incident) where humanitarian relief turned into armed peacekeeping of a vague and tentative sort and 18 US soldiers were killed trying to capture a warlord who was riding around in a US airplane two months later.

Another believer in Limited Objectives was Madeleine K. Albright, Clinton's ambassador to the UN, who asked Powell, "What's the point of having this superb military that you're always talking about if we can't use it?"

Clinton did not reappoint Powell for a third term as Chairman, for which he was eligible. Instead, in October 1993, he chose Army Gen. John M. Shalikashvili, who was more amenable to views of the Administration. Shalikashvili went to some length in disagreeing with the Weinberger

Doctrine, declaring that he had no right to put a sign on his door saying, "I'm sorry—we only do the big ones."

In his first annual report to Congress, William J. Perry, who replaced Aspin as Secretary of Defense in 1994, broadened the use of the armed forces to include instances when "the United States has important but not vital national interests at stake." National security advisor Anthony Lake identified seven "circumstances" in which military force might be used. One of them was "to maintain our reliability, because when our partnerships are strong and confidence in our leadership is high, it is easier to get others to work with us."

American officials quoted by the *New York Times* said the reason for air strikes near Sarajevo in 1995—Operation Deliberate Force—was to "drop a few bombs and see what happens." That was four years before Operation Allied Force ousted the Serbian regime of Slobodan Milosevic in 1999.

In February 1998, discussing air strikes against Iraq, Albright—by then Secretary of State—said, "We are talking about using military force, but we are not talking about war. That is an important distinction." In December 1998, Operation Desert Fox sent 650 air sorties and 400 cruise missile strikes against Iraq, but it was called off after 70 hours, in part because some felt bombing during

the use of military forces only as a last resort, but as potentially the best, first option when combined with other instruments of national and international power. We must not try to use force only in an overwhelming capacity, but in the proper capacity, and in a precise and principled manner." It was interpreted as a repudiation of Weinberger and Powell.

Through the Lens of Syria

How far US policy had drifted from the Weinberger Doctrine was starkly demonstrated during the Syria crisis of 2013. A chemical weapons attack Aug. 21 by Syrian President Bashar al-Assad's forces killed more than 1,400 civilians outside Damascus.

President Obama had warned Assad in 2012 that "a red line for us is [when] we start seeing a whole bunch of chemical weapons moving around or being utilized." Following the Damascus attacks, the Administration shifted into high gear and floated a plan for strikes against Syria, disclosing details—and limits—of the envisioned operation.

"The options we are considering are not about regime change," said White House spokesman Jay Carney. Other

officials said the objectives included punishing Assad and sending him "a very clear signal." The operation would take the form of a cruise missile attack, launched by Navy destroyers in the eastern Mediterranean. There would be no air strikes or US ground forces.

Secretary of State John F. Kerry said it would be "a very limited, very targeted, very short-term effort that degrades his capacity to deliver chemical weapons" and "an unbelievably small, limited kind of effort."

Obama said, "Any action that we contemplate and partners like France might contemplate would be limited, proportionate, and appropriate and focused on deterring the use of chemical weapons in the future and degrading the Assad regime's capacity to use chemical weapons."

The *Washington Post* reported that some military leaders had "serious reservations" about the impending strike. According to the *New York Times*, the "drum major for intervention" in Syria was Kerry.

Opinion polls found that only 30 percent of the public supported a strike on Syria. Kerry attributed the reluctance to "an enormous Iraq hangover," which

sounded like the modern equivalent of the Vietnam syndrome.

The whole thing fizzled out in early September when Assad agreed to a casual comment by Kerry in a news conference that Syria could avert an attack by placing its weapons under international control. The Administration doubted Assad's sincerity but had no choice except to fold its initiative for a strike.

Comparisons with Weinberger were inevitable. Despite all the criticism, no one has yet come forward with a comprehensive alternative to his six tests. Often disparaged and sometimes declared dead, the tests keep bobbing back up. Events have a way of making them look reasonable, even wise.

Thirty years later, in the absence of anything that credibly supersedes it, Weinberger's Doctrine is still the yardstick against which the use of force is measured. ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributor. His most recent article, "The Feeder Force," appeared in the January issue.



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Containment

It was early 1946 and diplomat George F. Kennan was stationed at the US Embassy in Moscow. In Washington, D.C., top officials espoused a soft line toward the USSR, but Kennan objected. Using a routine Treasury inquiry as a pretext, he let fly with the longest, most famous, and most explosive cable in US diplomatic history—known ever after as “the Long Telegram.” Kennan warned Secretary of State George C. Marshall that Moscow was unrelentingly hostile but was sensitive to “the logic of force.” He argued that the US could meet the threat “without recourse to any general military conflict.” He listed practical steps to do so. Kennan had laid the foundation of the Cold War policy of “containment.”

We have here a political force committed fanatically to the belief that with US there can be no permanent *modus vivendi*, that it is desirable and necessary that the internal harmony of our society be disrupted, our traditional way of life be destroyed, the international authority of our state be broken, if Soviet power is to be secure.

This political force has complete power of disposition over energies of one of world’s greatest peoples and resources of world’s richest national territory and is borne along by deep and powerful currents of Russian nationalism. In addition, it has an elaborate and far-flung apparatus for exertion of its influence in other countries, an apparatus of amazing flexibility and versatility, managed by people whose experience and skill in underground methods are presumably without parallel in history.

Finally, it is seemingly inaccessible to considerations of reality in its basic reactions. For it, the vast fund of objective fact about human society is not, as with us, the measure against which outlook is constantly being tested and re-formed, but a grab bag from which individual items are selected arbitrarily and tendentiously to bolster an outlook already preconceived.

This is admittedly not a pleasant picture. Problem of how to cope with this force [is] undoubtedly greatest task our diplomacy has ever faced and probably greatest it will ever have to face. It should be point of departure from which our political [and] general staff work at present juncture should proceed. ...

I cannot attempt to suggest all answers here. But I would like to record my conviction that problem is within our power to solve—and that without recourse to any general military conflict. And in support of this conviction there are certain observations of a more encouraging nature I should like to make.

(1) Soviet power, unlike that of Hitlerite Germany, is neither schematic nor adventuristic. It does not work by fixed plans. It does not take unnecessary risks. Impervious to logic of reason, and it is highly sensitive to logic of force. For this reason it can easily withdraw—and usually does—when strong resistance is encountered at any point. Thus, if the adversary has sufficient force and makes clear his readiness to use it, he rarely has to do so. If situations are properly handled there need be no prestige-engaging showdowns.

(2) Gauged against Western world as a whole, Soviets are still by far the weaker force. Thus, their success will really depend on degree of cohesion, firmness, and vigor which Western world can muster. ...

“The Long Telegram”

George F. Kennan
Deputy Chief of US Mission
Moscow
(to Secretary of State
George C. Marshall)
Feb. 22, 1946

Find the full text on the
Air Force Magazine’s website
www.airforcemag.com
“Keeper File”

(3) Success of Soviet system, as form of internal power, is not yet finally proven. It has yet to be demonstrated that it can survive supreme test of successive transfer of power from one individual or group to another. Lenin’s death was first such transfer, and its effects wracked Soviet state for 15 years. After Stalin’s death or retirement will be second. But even this will not be final test. ...

(4) All Soviet propaganda beyond Soviet security sphere is basically negative and destructive. It should therefore be relatively easy to combat it by any intelligent and really constructive program.

For these reasons I think we may approach calmly and with good heart problem of how to deal with Russia. As to how this approach should be made, I only wish to advance, by way of conclusion, following comments:

(1) Our first step must be to apprehend, and recognize for what it is, the nature of the movement with which we are dealing. We must study it with same courage, detachment, objectivity, and same determination not to be emotionally provoked or unseated by it, with which doctor studies unruly and unreasonable individual.

(2) We must see that our public is educated to realities of Russian situation. I cannot overemphasize importance of this. Press cannot do this alone. It must be done mainly by government, which is necessarily more experienced and better informed on practical problems involved. ...

(3) Much depends on health and vigor of our own society. ... Every courageous and incisive measure to solve internal problems of our own society, to improve self-confidence, discipline, morale, and community spirit of our own people, is a diplomatic victory over Moscow. ...

(4) We must formulate and put forward for other nations a much more positive and constructive picture of sort of world we would like to see than we have put forward in past. It is not enough to urge people to develop political processes similar to our own. ...

(5) [W]e must have courage and self-confidence to cling to our own methods and conceptions of human society. After all, the greatest danger that can befall us in coping with this problem of Soviet communism is that we shall allow ourselves to become like those with whom we are coping. ■

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The Dambusters



1

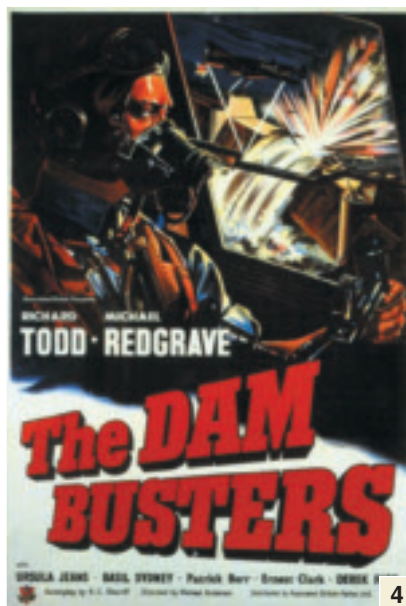


2



3

It was called Operation Chastise—an RAF bomber attack against German dams on May 16 to 17, 1943. It was no ordinary raid. The dams were heavily defended, and high-flying bombers could not achieve needed precision. The dams also were guarded by torpedo nets. RAF Lancaster bomber crews employed a special “bouncing bomb.” Released at extremely low level, it would skip across a reservoir, leap over the nets, stop against a dam wall, and explode. The daring raids breached the Mohne and Eder dams, causing loss of power and water. Catastrophic flooding drowned some 1,600 people. The raid was celebrated a 1955 British film, “The Dam Busters.”



4

1: Practice bomb hits shore target. 2: The Eder Dam, post-attack. 3: Lancaster releases its skip bomb during a trial run. 4: Poster for 1955 film.

By Frances McKenney, Assistant Managing Editor



Emerging Leaders

The Air Force Association began an Emerging Leaders Program in 2013 as a way to secure AFA's future.

Emerging Leaders volunteer for a year. With guidance from a mentor, they participate on a national-level council, attend national leader orientations, and serve as National Convention delegates. Here's the fifth Emerging Leader's profile.

Lt. Col. Cristina F. Lussier

Home State: California.

Chapter: Montgomery.

Joined AFA: 1996.

AFA Offices: Several at chapter level, including Community Partner VP, Donald W. Steele Sr. Memorial Chapter. Now on the Montgomery Chapter Executive Committee and on the national-level Strategic Planning Committee.

AFA Award: None.

Military Service: 17 years on Active Duty.

Occupation: Commander, AFROTC Det. 17, Troy University, Ala.

Education: B.A., Pepperdine University. M.A., University of San Diego. M.A., Naval Postgraduate School.

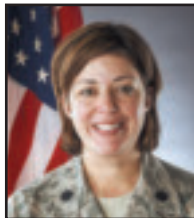
Q&A

How did you first learn of AFA? As a cadet in the AFROTC program. ... Our cadre members were very enthusiastic about getting involved with the local chapter.

Why did you join AFA? From the get-go, cadre members and faculty members at Pepperdine had always said if you want to be a true professional, you need to support the group that supports you.

How is AFA of value? When I first came on Active Duty, I joined AFCEA, MOAA, AFA—almost every one out there. ... I stuck with AFA because AFA gave everything I needed: the *Air Force Magazine* gives me the education on what's going on around the globe. It helps advocate for what our senior leaders are doing. ... AFA helps support me and my subordinates—awards for example.

How can AFA increase membership? The value of networking that AFA can provide us as professionals is something we should really focus on to get the younger generation interested.



Lussier called this "a photo with my beautiful family." A new baby joined them in November.



In Texas, former NASA Flight Director Gene Kranz models the San Jacinto Chapter's gift of a white vest, like the one he wore while shepherding Apollo 13 safely back to Earth in 1970. Kranz retired from NASA in 1994.

Vintage

Do you still fit into your Air Force uniform?

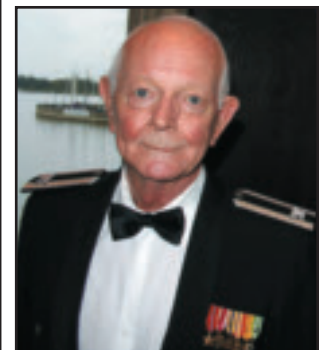
Many **San Jacinto Chapter** members manage to do so, at least once a year, for Vintage Uniform Night.

This time, the annual event in Texas featured as guest speaker chapter member Eugene F. Kranz, the former NASA flight director for Gemini, Skylab, and Apollo. He spoke to the audience at the evening banquet, held at the Hilton near the Johnson Space Center, about pulling together a team of both people and hardware capable of getting astronauts to the moon.

Kranz is probably best known for managing mission control during the Apollo 13 accident in space in April 1970. An oxygen tank exploded on the spacecraft's service module during that mission to the moon. This forced the three astronauts to retreat to the lunar module, where they turned the spacecraft



For San Jacinto Chapter's Vintage Uniform Night, Bill Rothschild (left) wore classic fatigues. Bob Kjar (below) wore his mess dress.





The Ute-Rocky Mountain Chapter in Utah highlighted its Sullivan Award winners with photos and summaries of their accomplishments. Nearly 300 guests attended this banquet.

Ute-Rocky Mountain Chapter President Lacy Bizios (left) presents a Sullivan Award to Barbara Gaehle, an Ogden Air Logistics Complex analyst. At right are Bob McMahon and Maj. Gen. H. Brent Baker Sr., the OALC commander.



around and for four days survived with limited electricity, water, and heat. This saved the command module's power, enabling a return to Earth and splashdown in the Pacific.

During the Apollo 13 mission—following a tradition that started with the Gemini 4 spacewalk mission in 1965—Kranz wore a white vest. White was his NASA team's color. The vest, sewn by his wife, Marta, to boost team spirit became almost as iconic as Kranz's crewcut. He donated the Apollo 13 waistcoat to the Smithsonian's National Air and Space Museum in 2006.

An AFA version of the white vest became an apropos focus for the San Jacinto Chapter's Vintage Uniform Night.

Honors in Maintenance and Logistics

The **Ute-Rocky Mountain Chapter** in Ogden, Utah, recently awarded local top performers in the maintenance and logistics fields at Hill AFB, Utah.

Twenty-five people from Team Hill received Kevin J. Sullivan Awards at the chapter's 20th annual banquet. The winners came from Ogden Air Logistics Complex, the 748th Supply Chain Management Group, and the 75th Air Base Wing. In addition, Kay Stowell received an award as outstanding volunteer at Hill Aerospace Museum.

Retired Maj. Gen. Robert H. McMahon served as keynote speaker for the evening. Before retiring in 2012 as commander of Warner Robins Air Logistics Center at Robins AFB, Ga., McMahon had served at Hill for three assignments.

Along with a guest speaker, the banquet included an honor guard from Northridge High School presenting the colors; singing of the national anthem by Chapter Membership VP Cory Jenkins; and a \$4,500 donation presented by Chapter President Lacy Bizios to Operation Warmheart, a nonprofit organization that aids airmen having financial difficulties.



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How To Take Advantage of a Podium

The guest speaker from the **Chuck Yeager Chapter** in West Virginia did not mince words: “To network better with the AMRAAM user community, I joined the Air Force Association and have been a member for over 10 years,” Gordon R. Snurr II told the audience.

He was referring to the Advanced Medium-Range Air-to-Air Missile and a period during his 33-year career with Alliant Techsystems—better known as ATK—when he had responsibility for missile propulsion subsystems technology. Namely, the AMRAAM. AFA membership gave him access to symposiums at the Air Armament Center at Eglin AFB, Fla., and at Wright-Patterson AFB, Ohio, where he met people working with and on the missile.

Today Snurr directs the Strategic Facility Program Management Office for ATK at the Allegany Ballistics Laboratory in Rocket Center, W.Va.

In January, he helped present the AFA Civil Air Patrol Outstanding Squadron Cadet of the Year Award to Martin Turner of the Potomac Highlands CAP Composite Squadron in Petersburg, W.Va. There, he took the opportunity to deliver that solid pitch for joining AFA.

How did this happen?

Chapter President Herman Nicely lived four hours away from Petersburg, so he needed a local stand-in. He telephoned Snurr. “He was quite an exceptional person to talk to,” said Nicely, remembering the phone call.

Turned out Snurr had lots of experience giving commencement speeches and business presentations. He enthusiastically took on the AFA assignment and researched and wrote out his remarks over the course of several days.

In his keynote to the audience of some 50 guests, he described his three decades with ATK. He acknowledged CAP’s role in developing young people. But he also worked in mention of AFA’s missions, publications, websites, and seminars.

He wrapped up his AFA remarks by saying: “If you continue to pursue aviation, you will certainly benefit from a student membership ... to start networking now.”

“He went the extra mile-and-a-half” for the association, commented Nicely.

At the CAP ceremony at Grant County Arpt., W.Va., Martin Turner (left) accepts an AFA Certificate from Gordon Snurr. Afterward, cadets and parents—following advice in Snurr’s speech—came up to him and began networking.



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The Sullivan Award is named for retired Lt. Gen. Kevin J. Sullivan. He was stationed at Hill for more than seven years in total, with a stint from 2003 to 2007 as commander of Ogden Air Logistics Center.

Let it Snow—Community Partners

Sunny skies and temperatures in the low 30s offered perfect conditions for the military winter sports weekend called SnoFest at Keystone Resort, Colo.

The **Lance P. Sijan Chapter** donated \$1,000 to this annual event, organized by the Air Force Academy and military facilities primarily in Colorado and Wyoming.

As a sponsor, the chapter set up a table at the resort's conference center, where guests registered on Friday for two days of skiing, snowshoeing, snowboarding, buffet meals, a homemade-dressed contest, and other family activities, all at discounted prices.

Chapter Treasurer Barbara L. Binn and member Brian Binn manned the AFA table all day, spelled by Chapter President David K. Shiller and his wife, Margy.

The Binns have been holding down this SnoFest AFA table for some 10 years, but this time, Barbara said, she realized that folks at the other tables represented ready-made Community Partners. She began recruiting them. She reported that the Navy Federal Credit Union, in particular, eagerly signed up because it was new to the area and had limited access to military facilities.

Pearl Harbor Remembered

A Pearl Harbor remembrance ceremony in the library at JB McGuire-Dix-Lakehurst, N.J., involved members from several Garden State chapters: **Hangar One Chapter**, **Thomas B. McGuire Jr. Chapter**, and **Shooting Star Chapter**.

New Jersey State President Howard Leach Jr., in his CAP lieutenant colonel's uniform, spoke to the audience gathered at the base's "Librar-e and Resource Commons" about AFA, as well as CAP's role in World War II.

He also formally presented to Lt. Col. Todd Randolph, commander of McGuire's 87th Force Support Squadron, a print by Shooting Star member and aviation artist Keith K. Ferris. The print is called "Circus Outbound" and depicts a B-24 on a World War II combat mission. It will hang in the base library, a facility overseen by Randolph's unit.

A brass plaque affixed to the print dedicates it to Hangar One Chapter member James E. Young. The retired brigadier general flew the Liberator—and several other types of aircraft—dur-

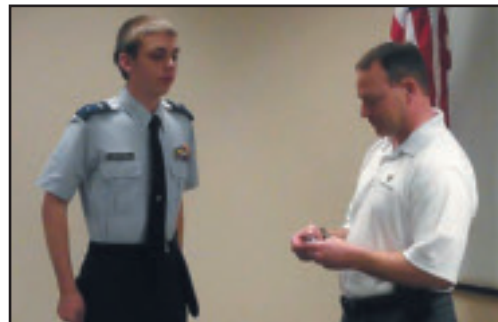


Paul Revere Chapter President Paul Zauner (left) presented an AFA Michael Wilson Scholarship to AF-ROTC cadet James O'Connor. At right: Lt. Col. Michael DeRosa, Det. 340 commander from Worcester Polytechnic Institute, Mass. Major League baseball pitcher Brian Wilson established the \$15,000 scholarship in the name of his father, an Air Force veteran.

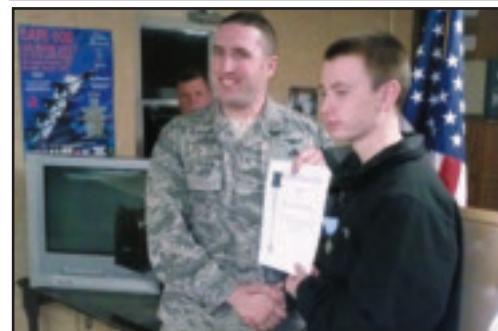
At a Pearl Harbor remembrance event at JB McGuire-Dix-Lakehurst, N.J., are: Susan Loricchio, retired Navy Capt. James Steinbaugh, CAP Lt. Col. Howard Leach, Francis McGinley (seated), James Young, Ken Kersch, and Jason Hall.



CAP cadet Luke Lewandowski stands at attention as Fort Dodge Chapter Treasurer Justin Faiferlick prepares to present him with an AFA CAP Outstanding Squadron Cadet of the Year Award in Iowa.



Otis Chapter President 2nd Lt. Brian Goodman congratulates Kevin Wilson on his CAP Outstanding Squadron Cadet of the Year Award. Wilson is in PT uniform because the squadron wanted the award to be a surprise.



ing service in three wars. Young was the New Jersey assistant adjutant general for air and also commanded McGuire's 170th Military Airlift Group beginning in 1967.

AFA officials at the ceremony included McGuire Chapter President Maritza N. Mendoza and, from the Shooting Star Chapter, State Government Relations VP Susan Loricchio and State Membership Director Tobia F. Terranova.

Other commemoration events organized by and held at the library that afternoon included presentations on the Army, Navy, and the Army Air Forces

responses to the Japanese attack on Pearl Harbor, a program by Jason Hall and Ken Kersch from the Battleship New Jersey museum, and a book signing by local artist Francis McGinley. He is author of a book of narratives and art called *Let Us Never Forget*.

More Chapter News

■ Utah's three chapters—**Northern Utah, Salt Lake, and Ute-Rocky Mountain**—led AFROTC, AFJROTC, and Civil Air Patrol cadets in assembling holiday gifts and delivering them to veterans in December. Volunteers began this annual

project by filling tube socks with fruit and candy, personal hygiene items, and a Christmas card, some made by sixth-graders from Syracuse Elementary School. More than 80 AFA members, cadets, and family members then visited the George E. Wahlen Ogden Veterans Home in Ogden and, in Salt Lake City, the George E. Wahlen Department of Veterans Affairs Medical Center and William E. Christofferson Salt Lake Veterans Home to distribute the gifts.

■ Second Lt. Brian Goodman, president of the **Otis Chapter** in Massachusetts visited CAP Coastal Patrol 18, Cape Cod Squadron, in January and presented an AFA CAP Outstanding Squadron Cadet of the Year Award to Kevin Wilson. The cadet is the squadron cadet commander. CAP officer Dennis P. Mills later wrote: "After the award ceremony, Lieutenant Goodman shared his United States Air Force story and participated in a Q&A session with the cadets. His professionalism and polished approach in explaining his USAF career significantly contributed to helping the cadets understand the 'big picture' of life."

■ Jorge Laurel, president of the **Baltimore Chapter**, presented awards at a local CAP unit in December. At the annual Glenn L. Martin Composite Squadron awards banquet, he helped honor the group's CyberPatriot Team

with a participation award. Team members were Wyatt Hartman, George Eliss, and Anthony Cole. Laurel also helped

present Hartman with the AFA award for the CAP Outstanding Squadron Cadet of the Year. ■

Reunions

reunions@afa.org

28th Air Refueling Sq. Sept. 5-7, Ellsworth AFB, SD. **Contact:** Doug Botts (512-394-9992) (dougbkar@yahoo.com).

55th & 58th Weather Recon Sqs. June 11-13, Savannah House, Branson, MO. **Contact:** Conrad Layton (918-446-6945) (conradlay@aol.com).

84th Air Transport Sq/Military Airlift Sq. May 16-17, Hampton Inn Vacaville, CA. **Contact:** John Burnett, 3013 Red Maple Ct., Vacaville, CA 95687 (jnburnet@cwnet.com).

601st-615th Airborne Warning & Control Sq. Germany. April 28-May, Tucson, AZ. **Contact:** Francis Gosselin (352-588-9295) (fgosselin@tampabay.rr.com).

Air Weather Assn. April 30-May 4, InnPlace Charleston Airport Hotel, Charleston, SC. **Contact:** Kevin Lavin (434-296-2832) (airweaassn@aol.com).

Del Rio UPT Class 74-06. May 9-10, San Antonio. **Contact:** Charlie Stylc (443-883-5280) (charlie_113@yahoo.com).

Graham AB, FL. May 16-18, Marianna, FL. **Contact:** Bob Hoff, Graham Reunion, PO Box 347, Marianna, FL 32447 (850-294-5978).

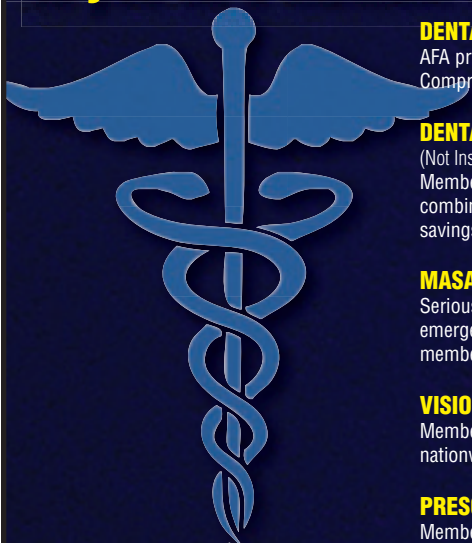
Ramstein AB fighter sqs (1952-94). Sept. 27-29, Colorado Springs, CO. **Contact:** Mike Ingelido (719-473-3807) (fox4gib@netscape.net).

SAC Airborne Command Control Assn. June 25-29, Rushmore Plaza Holiday Inn, Rapid City, SD. **Contact:** Rod Berlin (937-469-5473) (rodney.berlin@ngc.com).

US AAC Pilot Classes of WWII. Sept. 10-14, St. Louis. **Contact:** Stan Yost, 13671 Ovenbird Dr., Fort Myers, FL 33908 (239-466-1473). ■

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

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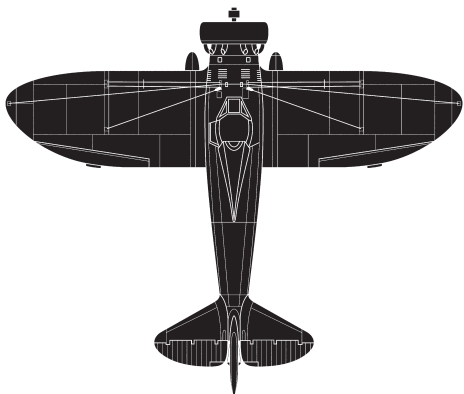
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P-26 Peashooter



The Army Air Corps P-26, known universally as the Peashooter, marked the end of one era and the start of the next. This Boeing-built pursuit aircraft was the last AAC airplane with an open cockpit, fixed landing gear, and externally braced wings. It was also the first all-metal, monoplane fighter the US armed forces ever put into production. This “modern obsolete” fighter was beloved by pilots, who lauded its speed and maneuverability.

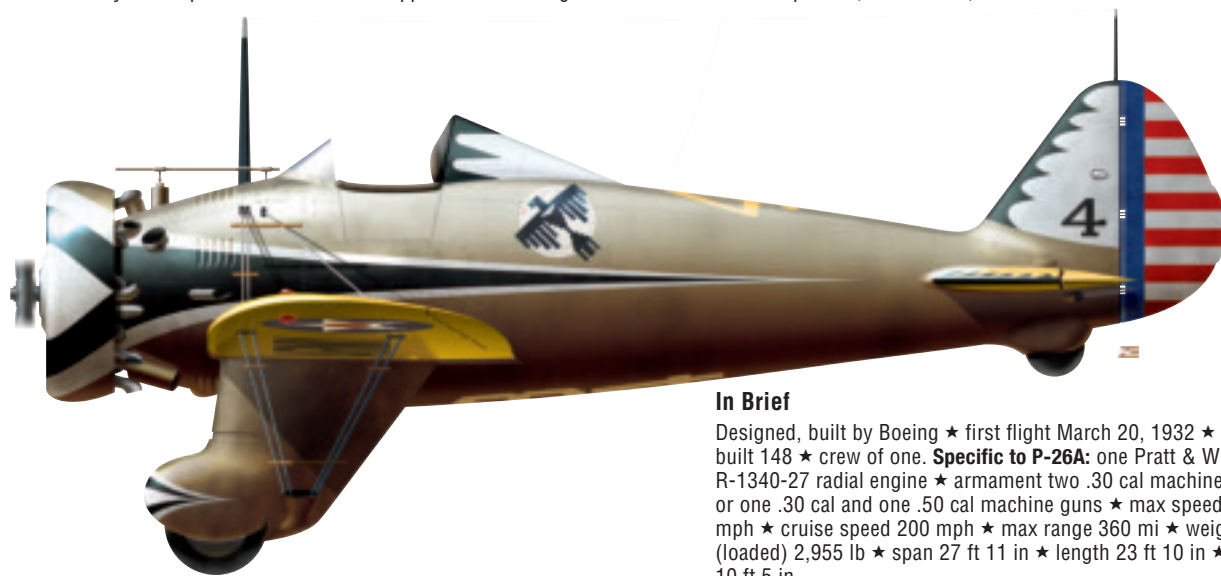
For Boeing, the aircraft was a speculative interwar venture. The company began it in the early 1930s without a contract, putting reliance on its experience with the Monomail and B-9 all-metal aircraft. The Army liked it. The P-26 ended the notion that bombers had become too fast for fighters to intercept; its top speed of 234 mph exceeded

that of the fastest Martin B-10 bomber. Indeed, initial testing showed that its landing speed was too great, forcing Boeing to install split flaps to slow it down. Because the P-26 had a tendency to nose over, Boeing installed a tall armored headrest to protect the pilot.

It was the AAC’s primary fighter until 1937, when the service began to acquire large numbers of faster and more-capable aircraft such as the Seversky P-35 and Curtiss P-36. By the time of the Dec. 7, 1941, attack on Pearl Harbor, the P-26 had been relegated to a trainer role; the Japanese destroyed many on the ground in Hawaii. In the Philippines, however, a few operational models managed to bring down several Japanese aircraft.

—by Walter J. Boyne

This aircraft: Army Air Corps P-26A—#04—as it appeared when assigned to the 34th Pursuit Squadron, March Field, Calif.



In Brief

Designed, built by Boeing ★ first flight March 20, 1932 ★ number built 148 ★ crew of one. **Specific to P-26A:** one Pratt & Whitney R-1340-27 radial engine ★ armament two .30 cal machine guns or one .30 cal and one .50 cal machine guns ★ max speed 234 mph ★ cruise speed 200 mph ★ max range 360 mi ★ weight (loaded) 2,955 lb ★ span 27 ft 11 in ★ length 23 ft 10 in ★ height 10 ft 5 in.

Famous Fliers

Notables (AAC): Frank Andrews, Glenn Barcus, Albert Boyd, Lewis Brereton, Claire Chennault, Howard Craig, Laurence Craigie, Ira Eaker, Hugh Elmendorf, Lamar Gillett, J. B. Haddon, Haywood Hansell Jr., Millard Harmon, Benjamin Kelsey, Earle Partridge, Elwood Quesada, Hoyt Vandenberg, Ennis Whitehead, Steve Hinton. Wong Pan-yang, Wong Sun-shui (China). Jose Kare, Jesus Villamor (Philippines). **Test pilots:** L. H. Dawson, Oliver Gothlin, Les Tower.

Interesting Facts

Made first flight only three months and 15 days after contract signing ★ used external stainless steel bracing and fixed landing gear to reduce complexity and weight ★ built under largest Army aircraft contract since Boeing’s MB-3A of 1921 ★ produced for \$9,999 each ★ given designation of Model 281 for export ★ purchased by China in 1930s with funds raised by Chinese Americans, who placed contribution boxes in Chinese restaurants ★ used by Chinese air force in 1937 to shoot down several Japanese bombers ★ remained in service (Guatemalan air force) until 1957.



A combat formation of Boeing P-26A airplanes in May 1938.



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