



# The Pendulum Swings Back

**After reducing airmen to pay for modernization, USAF must now change course.**

**U**nder a new President, in a changing world security situation, and with a Congress perhaps moving toward repeal of the Budget Control Act, the Air Force is likely due for a major course correction in the coming months. Manpower, cut several years ago to pay for long-postponed modernization, is swinging back as the new top priority.

It is not yet clear if promised higher defense spending will materialize to preserve USAF's massive refit program. Moreover, a new national strategy review is already underway, and a fresh Nuclear Posture Review will overlap it. These will set new benchmarks for the size of both the conventional force and

the capability of the nation's nuclear deterrent.

Air Force leaders spoke to all this uncertainty at AFA's Air Warfare Symposium 2017, held March 2-3 in Orlando, Fla. They offered guarded optimism that the service's readiness crisis will finally be addressed, but could not offer assurance—even under a promised budget boost—that modernization won't be the collateral damage. Air Force leaders asked their industry counterparts for patience and ingenuity in holding design and manufacturing teams together while new policies take shape.

"What we don't want to do is to make wide swings without having some sense of what a predictable budget will look like, so that we don't start something we can't sustain," Chief of Staff Gen. David L. Goldfein told reporters at a symposium press conference. "That's

**By John A. Tirpak, Editorial Director**

actually the way you can do damage to a service."

Acting Air Force Secretary Lisa S. Disbrow, sitting beside Goldfein, said the Air Force is considering going up from 317,000 airmen now to 350,000 in as little as five years, "and we may need to grow beyond that number" in the future, depending on the outcome of the national strategy review.

"We had a comprehensive personnel review," Disbrow said. "As this defense strategy comes together, and if the case becomes that the Air Force does need to grow—as we think it does—then we'll have to take another look" at what the final number should be. But 350,000 air-



**Lt. Col. Brad Bashore, 58th Fighter Squadron commander, walks to his jet during exercise Northern Lightning at Volk Field ANGB, Wis., on Aug. 19, 2016. There is a shortage of 1,500 pilots across the total Air Force.**



**Second Lt. Angelica Phillips and 1st Lt. Joseph Whelan practice in a missile procedures trainer in 2015. Some nuclear equipment dates to the dawn of the nuclear era.**

men, she said, “that’s the minimum just to fill ... the structure we have today.”

Such a figure would bring the Air Force up to full manning, reduce the excessive overtime airmen have been working, and relieve key shortages, such as in pilots. Goldfein, citing airline numbers, has said that their demands will far exceed USAF’s annual production of about 1,400 pilots, and the shortage has to be addressed as a national problem.

Disbrow said the service is about “1,500 pilots short across the total Air Force.” Nearly 1,000 of those are Active Duty fighter pilots. There aren’t enough to fill both cockpits and staff positions—notably at combined air and space operations centers—where pilot expertise is essential.

Most Air Force units have been at some 80 percent of their authorized manning levels for quite some time. Goldfein noted that in the 2014 budget, the service decided to take some risk with its personnel levels to free up cash for modernization. The fighter force, he said, averages 27 years old, the bomber, tanker, and advanced trainer force are more than 50 years old, and the nuclear deterrent force has elements that go back to the beginning of the nuclear age. Modernization was a can that had been kicked down the road so many times it could no longer be deferred.

But then the world situation changed, Goldfein asserted. Since that decision

to borrow from the personnel accounts, Russia invaded Ukraine and threatened the Baltic states, China has been building islands in the South China Sea, and the US entered a new Middle East war, the fight against ISIS. The shortages of airmen—particularly pilots and maintainers—really began to bite.

The new Defense Secretary, James N. Mattis, said almost from his January confirmation that readiness would be the driving factor among his priorities. For the Air Force, readiness rides on having enough people.

Besides the uncertainty of whether Congress will honor President Trump’s call for a major increase in defense



“WE’RE LOOKING AT HOW AUTOMATION AND ROBOTICS COULD FREE UP MANPOWER TO BE REPURPOSED IN OTHER AREAS.”

ACTING AIR FORCE SECRETARY LISA DISBROW

spending, the Air Force cannot simply throw a manpower switch and fill its ranks, Goldfein said.

“That’s why it’s so important that we can have some reasonable projection of a stable budget of the future, so we can bring airmen in on a glide slope that’s sustainable over time and can continue to build a healthy force.”

The new strategy review, Disbrow said, will look at “the timing required, how many [people and machines], how many conflicts at once.” In terms of readiness, it will answer the most tinent question: Ready to do what?

It will produce a “force planning construct,” she said in her keynote speech at the symposium, to determine the “number, the size, the timelines, and the conditions of the conflicts we’re expected to prepare for.” She said the services have been assured “there are no preconceived positions going in.”

The capacity issue has to be addressed, Goldfein said, because “so many simultaneous campaigns” means “you’re actually short of forces” to take on new ones, and the Air Force remains resolved that it will not resort

**A B-52 Stratofortress prepares to land at Barksdale AFB, La. Average age of the bombers, the KC-135 tankers, and the T-38 trainers is more than 50 years old.**

to a “tiered readiness” model. Upward of 80 percent of USAF forces need to deploy immediately in the event of a major conflict, he said, and that won’t allow a tiered readiness approach.

Of the overall pull on USAF resources, Disbrow said, “I can’t imagine it’s going to be any less demanding than it is now.” She added that she expects no relief “on our responsibility for a safe, secure, reliable nuclear deterrent.”

Goldfein said the Air Force will be a mix of new and old, or legacy, systems for some time to come, because there simply won’t be enough money—even with a modest increase—to do everything the service would like. Even using an out-of-date estimate of \$120,000 as the average cost of an airman per year, a 33,000-person increase in end strength would cost about \$4 billion per year.



The 612th Air and Space Operations Center, Davis-Monthan AFB, Ariz., commands and controls air and space power in the US Southern Command area. Robust multidomain C2 should give the Air Force an edge over its foreign competitors.



The US Air Force Academy class of 2016 enters Falcon Stadium in Colorado. USAF hopes to increase manpower levels.

Recognizing that it will take quite some time just to recruit and train another 33,000 people, Disbrow said USAF is looking at ways to get more out of the people and authorizations the service already has.

“We’re looking at how automation and robotics could free up manpower to be repurposed in other areas. We always look at the mix of civilian, reserve, ... [and] Active Duty ... and ... where can we make those kinds of shifts.”

Money may appear in unexpected ways. The cost of space launch is declining, Disbrow said, and new “contract types” as well as new manufacturing techniques, particularly 3-D or “additive” methods, drive prices down. The saved money can be used to reinvest in people and modernization.

“Overall, the top amount doesn’t necessarily increase, but what you’re getting for that amount is so much more,” Disbrow asserted.

Goldfein told reporters that the Air Force is going to be old and new, manned and unmanned, conventional and unconventional, attributable and unattributable. He wants tools to strike enemies, both kinetically and nonkinetically, that force them to “guess” what is happening to them. He said he’s “really interested in ‘silent sabotage.’”

Service leaders asserted that their best chance to keep the Air Force’s edge, even as foreign competitors close the technology gap, is through robust, multidomain command and control, integrating and distributing the fantastic amounts of information the US military collects during peace and war. By turning intelligence into information commanders can readily use—and doing so faster than any competitor—the Air Force should be able to prevail in any conflict.

“The fundamental question is not what do I have; it’s how does it con-

nect?” Goldfein explained. “It’s how do I ... make this so that one-plus-one always equals three? Because I’m never going to send a single platform into combat. I’m always going to send a family of systems that connects together.” That family, he said, will not be just Air Force, but the joint US military team and coalition or alliance partners.

### THE NEXT GAME CHANGER

Gen. Herbert J. “Hawk” Carlisle, the head of Air Combat Command who retired shortly after the symposium, said multidomain command and control will be the next “game changer” for the Air Force.

“If we can continue to know information better and control, get feedback, put the sensing grid ... with the effects grid, ... we will always win,” he stated. The biggest challenge to achieving it will be resolving the “Tower of Babel” of software languages used throughout the service. “We need to get off that and move to true fusion” of sensors, collectors, and interpreters of intelligence and combat platforms, Carlisle insisted.

In his speech, Goldfein said the way to “overwhelm” any enemy will be to present that adversary with too many “dilemmas” coming from multiple directions, so he can’t grasp the whole of the threat and can’t make decisions timely enough to blunt it. “That,” said

Goldfein “equates to deterrence in the 21st century.”

## OLD-SCHOOL DETERRENCE

The previous week, Goldfein had said the nation must modernize its nuclear arsenal. The land-based ICBM leg of the nuclear triad is “cost-imposing” on an enemy, who must target each of the 450 silo-based missiles, probably with multiple warheads, to have any chance of defeating that leg of the triad. The weapons needed to hit all those targets could easily be redirected at a much-smaller number of submarine pens and bomber bases if the ICBM silos were taken out of service, and this would be disruptive to the balance of power, Goldfein had asserted.

He had earlier also argued for the bomber force as “the most flexible” part of the deterrent, as it can be recalled. The existing force’s age is making it less credible as a nuclear threat, however.

As demands have multiplied and the amount of people and machines has either stayed the same or come down in the last few years, the Air Force has been talking more about the building readiness problem—and specifically for the high-end fight. Asked whether this focus has helped get USAF more ready for a conflict against a near-peer, Disbrow said, “I don’t think the needle has moved that much, unfortunately, because the demands are still high and we do have an availability issue with the aging fleet.”

One potential way to relieve some of the stress is through the possibility of USAF acquiring a new light attack aircraft. The idea would be that in “permissive environments,” where aircraft face little in the way of air-to-air or surface-to-air challenges, a light, turboprop-type airplane with modest ordnance, inexpensive to operate, could “free up” more sophisticated, more expensive to operate jets. This would allow them “to train for the higher threat missions” and increase their availability to cover other contingencies, Disbrow said.

Goldfein and Disbrow said there have been some experiments with such platforms in theater already, using OV-10 Broncos that were used in the Vietnam War, and the results have



US Air Force F-35s on a flight back from the UK in July 2016. USAF intends to buy 1,763 F-35s. Eleven nations will also fly the advanced fighter.

## A KEY FOCUS AREA WILL BE INCREASING THE SPEED AT WHICH THE AIR FORCE BUYS F-35S.

been promising. There’s no program of record yet, though, and USAF will do more experiments—dubbed Combat Dragon II—this summer at Holloman AFB, N.M., to verify the concept and, as Disbrow said, “the business case.”

If a decision is made to pursue a light attack aircraft, USAF is only interested in “off the shelf” or “shovel ready” aircraft, Goldfein insisted, saying that the service doesn’t want to start any kind of research and development program. He also said the program could be a pathfinder for allies that need a similar capability and could get in on a buy, training, and operating program with USAF.

Carlisle has offered skepticism about such an aircraft, telling *Air Force Magazine* that by the time the Air Force decided to buy such an airplane, held a competition, and fielded it, there may no longer be such a thing as a permissive environment. Given the proliferation of man-portable surface-to-air missiles, radars, and internet-enabled aircraft location, stealth may become a necessity. Carlisle questioned whether

USAF will be able to find enough pilots for the advanced aircraft it has or is planning—let alone crew for a new category of light attack airplanes.

Disbrow said such concerns are precisely why the service is doing “the exploration and the analysis.” Goldfein said such a program won’t be started until the service first decides if this is “worth pursuing or not.”

Elaborating on the future combat aircraft “mix,” Disbrow said USAF will submit, in its Fiscal 2018 budget, a “refresh and upgrade [of] aircraft we have on the ramp,” with capability upgrades largely mirroring those that have appeared in the annual unfunded priorities list USAF has given at Congress’ request in years past.

The planned goal of buying 1,763 F-35 fighters remains intact, she said, though “it’s doubtful we’d have 1,763 aircraft [operational] at any one time ... because of the length ... of the program.” By the time the later lots are bought, early aircraft may well have retired.

Goldfein said a key focus area will be the “possibilities of increasing the



**Four inert GBU-31 bombs are ready for loading onto F-35As at Mountain Home AFB, Idaho, during testing. The Air Force would like to purchase 60 F-35s a year and hopes to bring the overall unit price down to \$80 million per plane.**

speed of procurement” of the F-35. The service would like to get up to 60 F-35s a year “as quickly as we can. And part of that is getting the overall costs down. And so we’re working aggressively with [the] contractor,” Lockheed Martin, to accomplish that. He said speeding up the buy increases volume, which in turn lowers costs, and as that happens, “retrofit costs” of bringing earlier models up to the configuration of later ones “become less and less a challenge.”

Getting the buy rate of the F-35 up “will be our top priority” in acquisition, Disbrow said. Having more F-35s in the inventory obviates the need to upgrade older, fourth generation aircraft, with their limited relevant lifespan and which break so often, because of their age, that they pose an additional tax on maintainer ranks and time.

“It’s very, very much driven by ... this defense strategy review,” she said. The number of aircraft has to match “the number of conflicts and the response time that’s going to be required for those conflicts,” and Goldfein said

USAF will “make [its] case” in the strategy review for a faster F-35 buy.

Disbrow said the goal of the F-35 program for several years has been to achieve a unit cost of \$85 million a plane by Fiscal 2018 but USAF wants to get it even lower, below \$80 million per copy—“as low as we can go and still get a quality product.” The airplane’s design has finally reached a point where it is relatively stable.

Asked about President Trump’s involvement in F-35 negotiations, she said that “to have the President interested in defense programs is a good thing,” and he’s asked Mattis to review the program with an eye toward “getting quality at the best price.”

Goldfein said he’s concerned that Congress’ taste for never really voting on a defense budget but simply enacting a series of continuing resolutions is having a corrosive effect on industry and USAF’s relations with it.

“I’m very concerned about indus-

try’s ability to sustain a sophisticated workforce,” he said, because USAF needs industry’s ability to “produce the capabilities that we need, ... should we actually go into a high-end conflict.” The workers required for the enterprise are engineers or they need “increasingly ... sophisticated” skills and can’t be hired quickly. To industry, he said, “I really need you to keep the capacity in case I need it.” He urged industry to “figure out how to keep that sophisticated workforce on the books” during the uncertain periods.

The biggest problem confronting the nation, militarily, is “complacency” about readiness, Disbrow said. “Every single airman needs to be coming into work every day saying, ‘What have I done to make us ready?’”

Goldfein said readiness has become his focusing thought. “If I’m not treating every week like it’s the last week of peace, I’m not doing my job as a service Chief,” he said. ☛

SSgt. Madeilyn Brown/USAF; J. M. Eddins Jr./USAF