

Riding the bow wave; Tanker futures; No F-22 restart; Buy in bulk and save

SURF'S UP

Despite the Air Force's struggle in recent years to create a workable plan for the massive modernization task it faces, an unexpectedly high bill for ICBM recapitalization and space system modernization threatens to create a "bow wave" of bills even more formidable than thought. The situation might compel the service to put some projects on hold while possibly speeding others up.

USAF had three well-sequenced five-year blocks of modernization planned, Lt. Gen. James M. "Mike" Holmes, USAF's strategic planner, said at AFA's Air, Space & Cyber Conference in September. But the price of the Ground Based Strategic Deterrent came in more than \$20 billion higher than planned, and some must-do space and combat aircraft programs have swelled "the second and third" of those blocks past the breaking point, said Holmes.

Holmes has been nominated for a fourth star to take over Air Combat Command next spring.

Without being specific, Holmes said some programs may have to move to before the bow wave, and "we may pick out some for after." He couldn't give details because the next budget is under construction and close-hold, but suggested one affected project could be the new helicopter planned for Air Force Global Strike Command missile field support. Though Holmes said USAF will continue to try to protect the F-35, KC-46, and B-21 bomber—sacrificing other programs to keep the three crown jewels intact—Air Force Secretary Deborah Lee James said all three will be affected by Congress's inability to pass a defense appropriations bill. Lawmakers instead provided only a continuing resolution. It holds spending at last year's levels and blocks any new starts. She warned that the Budget Control Act could come roaring back and impose sequestration yet again in 2018.

A hint as to what else might slip due to the bow wave was offered by Air Education and Training Command chief Lt. Gen. Darryl L. Roberson, who said full operational capability for the new T-X trainer will probably be delayed at least two years, to 2034. He said this in turn would drive yet another service life extension program on some T-38s, including rewinging. However, he said the T-X might be sped up, and "if we can buy more T-Xs more quickly," the T-38 SLEP might not be necessary.

The strategic environment also plays in the evolution of USAF's modernization plans. AFGSC Commander Gen. Robin Rand said USAF is in the midst of an analysis, or "vector," to figure out what the right number of B-21s should be in the 2030-50 time frame, when the non-stealthy B-1 and B-52 will be considered too vulnerable to perform any but standoff missions, well outside enemy air defenses. Even so, at an employable fleet of about 100 bombers today—all of them "gainfully employed" constantly in the Middle East

war, as a show of force in the Pacific, or deterring Russia—Rand said AFGSC will not be able to do its job with "one less bomber." Aircrews are "pedaling really fast" just to keep up with today's operating tempo, he said, but the B-52 and B-1 fleets will still likely be reduced as the B-21 delivers in numbers.

Holmes, speaking on the bomber panel with Rand, insisted that USAF needs the Long-Range Standoff missile (LRSO) to replace the Air Launched Cruise Missile built in the 1980s. The ALCM was supposed to serve only 10 years. The LRSO will figure in the bomber vector that will also look for "what's the most cost-effective" way to perform strategic missions. But the LRSO is needed to give future presidents options and ensure USAF can "prosecute and hold any target at risk" on the globe. Rand said he "can't imagine the B-21 without the LRSO on it" for attacks against the most heavily defended targets.

Rand said he's "not comfortable" with remotely piloted aircraft overflying some sensitive areas—he hinted at missile sites—and that he's working with US Strategic Command about possible anti-RPA defenses of these areas—something else not currently in the budget.

X, Y, AND Z

An acquisition wild card was played at the conference by Air Mobility Command chief Gen. Carlton D. Everhart II, who said the long-standing plan to replace the existing KC-135 and KC-10 tanker fleets in three competitive blocks—KC-X, KC-Y, and KC-Z—might be overtaken by events. Everhart said he thinks the KC-46—the KC-X competition winner—will also likely be the KC-Y, albeit with some improvements to make it more of a communications node and more survivable. The KC-Z, though, he thinks will have to be something radically different—possibly stealthy and perhaps much smaller and unmanned. Tankers will have to evolve to be able to penetrate heavily defended airspace, he said.

Air Force acquisition chief Darlene Costello told reporters there would "have to be quite a bit of discussion" about changing the KC-Y and KC-Z acquisition plans, although she allowed that if the KC-46 performs as expected, "we may want to buy more." The program of record is for 179 KC-46s; designating it the KC-Y as well could boost that number to over 350 aircraft.

Everhart said that while a SLEP for the C-17 is not presently in the cards, he will move to standardize the fleet, hoping to add extended-range fuel tanks to the aircraft that don't already have them and make all AMC aircraft compliant with new air traffic management equipment regulations. He said the C-17 may benefit from a re-engining in about 10 years, taking advantage of new power plants that offer greater efficiency with less maintenance.

Costello said the only thing holding up the JSTARS recapitalization effort is Congress, which enacted ambiguous language about how the project could proceed. As soon as USAF understands whether Congress insists on fixed-price contracting for the whole program—a recapitalization of USAF’s ground-mapping radar and battle management airplane—or just the production phase, it can release the final request for proposals, she said.

Another surprise came from ACC chief Gen. Herbert J. “Hawk” Carlisle. Having previously said recapitalization of the Rivet Joint intelligence plane and Compass Call electronic warfare aircraft would have to wait until the late 2020s, Carlisle said ACC is looking at a much earlier program because of difficulty maintaining the aircraft. Two Compass Call airplanes are to have their electronic innards removed and ported to a new platform, as ACC considers a competition for a new system. Carlisle said the RC-135 Rivet Joints are getting hard to maintain because of “vanishing vendors” of parts on the 1970s-era aircraft.

Carlisle attempted to lay to rest the recurring suggestion that USAF put the F-22 back into production. He acknowledged that demand for the fleet perpetually far exceeds the supply—the program was terminated in 2011 at half the planned inventory—but he couldn’t bear to give up the programs “we wouldn’t be able to do” if money was redirected to an F-22 restart. These include a faster ramping up of F-35 production or even moving to “what’s next in a penetrating, counterair capability.” In fact, asked his priorities, he said of the F-35: “buy rate, buy rate, buy rate.” Having F-35 capacity will go a long way toward offsetting the missing F-22s, he asserted. His greatest concern is that he lacks the numbers to send combat aircraft everywhere they’re needed overseas. USAF needs fifth generation fighters, in numbers, and fast, he said.

Carlisle told reporters it’s become increasingly clear the F-16 and F-15 are “going to be around a long time,” and hopes for a quicker buy of F-35s have been dashed, making it necessary to SLEP the two older fighters. He said F-15s would need certain major structural replacements, such as new longerons and probably “a rewinging,” as well as a host of new mission equipment, including “fifth generation weapons” to complement fifth generation fighters like the F-22 and F-35.

Boeing officials told reporters they are offering the Air Force an F-15 SLEP and upgrade package called F-15 2040C. The menu of improvements includes fitting an infrared search and track (IRST) system to provide sensor capability against stealthy adversaries, a new active electronically scanned array (AESA) radar and the Eagle Passive Active Warning Survivability System (EPAWSS), called out by Carlisle specifically as a critical improvement to keep the Eagles viable. The Eagle upgrade would also

increase missile loadout to 16 or even 24 weapons, answering Carlisle’s previous calls for “more shots” available in an air-to-air fight. The F-22 is limited to six internally mounted radar guided missiles; the F-35 can carry up to four internally.

BUY THE ECONOMY PACK

F-35 partners and customers will be able to save \$2 billion collectively in Lots 12, 13, and 14 by adopting the “block buy” approach, program director Lt. Gen. Christopher C. Bogdan told reporters at the conference. By committing to certain numbers of jets ahead of time, the buyers can save on long-lead items, material, and labor, Bogdan said, much in the way that the US reduces cost using “multiyear” buys.

The three years add up to about 450 aircraft, but the Air Force can’t get in on the first year because of legal stipulations that must be met before Congress will give a go-ahead, he said. Even so, everyone else that could buy jets on Lot 12 “is onboard” with the approach, he added. Bogdan reiterated that the F-35A will be priced at around \$85 million a copy—including engine—by 2018.

Though F-35 uniformed leadership jobs were initially conceived as switching back and forth between the Navy-Marine Corps and Air Force every two years—with service acquisition authority and deputies also interleaved, to ensure a truly joint program—Bogdan has been in the position since 2012. He declined to say when he might leave the job, saying only that he serves at the pleasure of the President and Secretary of Defense. USAF officials, however, said that Congress is pleased with his management of the massive project, and members have urged the Secretary to extend Bogdan in the post accordingly.

Bogdan said Canada is doing “due diligence” in evaluating its next steps in fighter recapitalization and could still buy the F-35, even though the administration of Canadian Prime Minister Justin Trudeau has been negative on the program.

Worldwide partners say they “want more Air Force,” James said in her keynote speech at the conference, and since there isn’t enough USAF to go around, she said she has “challenged” the foreign military sales system to speed things up so partners can buy Air Force-compatible assets for themselves at a quicker pace. She’s directed that the acquisition workforce pipeline add more to the foreign security co-operation office to quicken the pace of FMS.

Costello said the Air Force will conduct an evaluation of off-the-shelf light aircraft to perform close air support in “permissive”—that is, relatively undefended—airspace. The evaluation will not necessarily lead to an acquisition program, but is to gauge “what is out there” so USAF can potentially adapt to the mission, she said. ★