

Heithold—the command is replacing the lion's share of its aircraft.

This puts AFSOC ahead of much of the Air Force in the long run, but requires a deft balance given the command's diverse and high-intensity operational requirements. Many of the Air Force's smallest, most specialized, and highest-demand fleets and personnel pools reside within the command, giving AFSOC little wiggle room for transition.

With ongoing combat commitments in the Horn of Africa, Afghanistan, and now against ISIS at other locations in the Middle East, AFSOC faces a constant, high demand to provide critical support to combatant commanders.

"Right now, AFSOC is in the middle of a pretty significant recapitalization effort," Heithold said at the Air Force Association's Air Warfare Symposium in Orlando, Fla., Feb. 12. "We are recapitalizing our AC-130s, our MC-130s, our [intelligence, surveillance, and reconnaissance] platforms—just almost across my entire portfolio there's change going on," he added.

At the same time, "we're in the middle of a conflict" against violent terrorists that shows no sign of abating, "so I can't take a knee," he said. "I have to maintain a level of capability and readiness today with my legacy force" while the same personnel pool simultaneously replaces the heavily tasked older platforms with new aircraft.

Replacing the command's old MC-130 Combat Talon II fleet with the new-build MC-130J Commando II air-frames is a case study in the challenges. The MC-130s are covert, penetrating tankers, the crews are in constant high demand, and even the old models offer critical capabilities their replacements have not yet fielded. Since a new terrain-following/terrain-avoidance radar for

the MC-130J is still being developed, the 23 airframes delivered to date lack low-level infiltration capability. To compensate, AFSOC has to hang on to its legacy MC-130s "a little bit longer" to cover high-end missions, Heithold said.

"I'm confident we'll get a TF/TA radar, ... but it's going to take time," he said.

Cannon Air Force Base in New Mexico has begun receiving new MC-130s. The Europe-based fleet at RAF Mildenhall, UK, has completely changed over, and AFSOC just began replacing the Pacific-based fleet at Kadena AB, Japan, this year.

The MC-130 is part of AFSOC's largest overall recapitalization effort—replacing legacy Hercules fleets with Super Hercules-based variants. Another big chunk of C-130J airframes is destined for gunship use, as AC-130J Ghostriders.

AFSOC requirements call for 57 new-build MC-130Js and 37 fresh AC-130J gunships. This is the requirement, at least, based on strategic guidance and combatant commander needs. "What can you afford to buy is a different question," said Heithold.

He noted that only 79 of the 94 required airframes are in the budget's program of record. Getting the full number of aircraft needed to replace the current fleets, though, "depends on whether the budget gets better looking than it does today," he acknowledged.

## **DIAL-A-BOMB CAPABILITY**

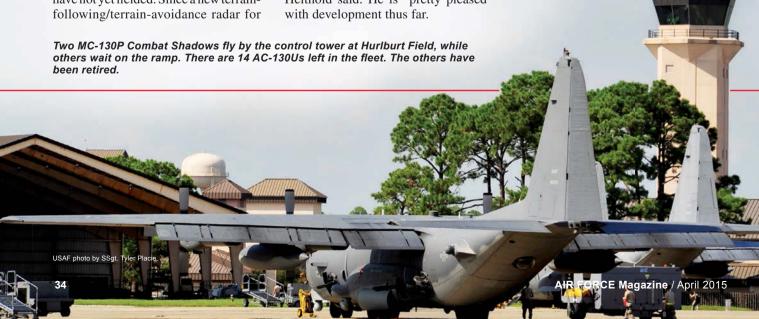
On the gunship recap, AFSOC's first converted AC-130J Ghostrider entered combined developmental and operational testing just last year. "We've got the operational test guys flying on the developmental test at the same time," Heithold said. He is "pretty pleased" with development thus far.

"I call it the 'ultimate battle plane,' because I'm going to have a dial-a-bomb capability" in addition to the legacy AC-130's battery of guns, he said. The Precision Strike Package (PSP) developed on the legacy AC-130W Stinger II combines a 30 mm cannon with precision weapons such as the Griffin missile or Small Diameter Bomb. Then Heithold decided to up the new gunship's firepower by adding an aft, side-mounted 105 mm gun.

"It will be an ultimate night-[close air support] airplane for special operations," he said. Ghostrider will bundle a "deep" artillery magazine with an arsenal of guided weapons. Essentially, "you've got a bomb truck with guns on it."

Despite a long C-130 gunship tradition, converting a J variant posed some unique challenges, detailed in the 2014 Director of Test and Evaluation's annual report. Though PSP is already operational on the AC-130W, putting it on the AC-130J proved a bit more complex and has resulted in testing delays. The J model's engines and propellers generate more vibration than the W model's, blurring the sensor target view. Electromagnetic interference hampered the crew's ability to control the sensor suite. On top of this, the prototype departed controlled flight during a handling test, requiring additional test flights following a brief grounding.

"All of this is manageable ... as long as we don't get in too big of a hurry to try to get it done," Heithold said. "I'm





confident that if we slow down, we'll get it right." Until then, AFSOC plans to hang on to as many legacy gunships as it can, he said.

The last of eight AC-130H Spectre and three additional AC-130U Spooky IIs recently retired, leaving 26 gunships—14 AC-130Us and 12 AC-130W Stinger IIs—still in service.

Heithold said he is quite confident AFSOC can hold onto all of them "for a good time until we get some J models." AFSOC will begin retiring airframes based on remaining service life as Ghostriders start to be delivered. "We look at the life on the wing and the various components on the airplanes and we end up retiring the most expensive aircraft" whether that's an AC-130U or an AC-130W, he said.

As the new gunship matures, Heithold envisions eventually equipping Ghostrider with microwave and even laser weapons in the future. "You're going to find this very hard to believe, but we don't want to kill everybody that we have in our sights," joked Hiethold. "There're times actually that we would like to have nonlethal means to force them to stop what they're doing—things like microwave energy guns," he said. A high energy laser could eventually replace the 105 mm gun, enabling Ghostrider to silently take out targets in the middle of the night. "No one hears anything, no one sees anything, it just quits working because we burned a hole in it," he said.

ISR is AFSOC's second largest effort, in terms of total airframes. Combatant

commanders are continually calling for more eyes in the sky—particularly manned ISR, in AFSOC's case. The command plans to boost capacity by replacing the U-28 fleet with more capable MC-12Ws.

The plan called for AFSOC to receive a total of 43 MC-12s—33 shed by Air Combat Command and 10 US Special Operations Command-owned airframes. The aircraft would be split between Cannon, Hurlburt Field, Fla., and a new Air National Guard unit at Will Rogers ANGB, Okla.

However, Congress barred transfer of all but the ANG aircraft, pending a report detailing the plan's fiscal justification and military rationale. "We're authorized to put up to 13" in Oklahoma, and Heithold said the command will start doing that this year. The ANG unit will provide both Aviation Foreign Internal Defense (AvFID) training to partner nation air forces and manned special operations ISR support. Special operations officials will brief their case to Congress "in the near future," while continuing to fly U-28s, he said.

AFSOC is also shuffling its specialized light mobility fleets, replacing its smaller C-145 Skytrucks with the purchase of more Dornier C-146 Wolfhounds. Heithold said the command is very impressed with them. "We found that, frankly, to be a great airplane for doing nonstandard aviation, so we're going to up the numbers by a few and retire the C-145s" from that role, Heithold said. AFSOC plans to buy up to 23 Wolfhounds

and retire all but five of the Skytrucks, relegating the remainder to AvFID duties.

Future budgets permitting, Heithold said he would also like to cushion the CV-22 tilt-rotor fleet with up to four attrition reserve airframes.

For the time being, AFSOC is pursuing a forward-facing gun to give the aircraft better protection in "hot" landing zones. "It doesn't need to be exotic" Heithold said, but the Osprey's "got to have some protection."

In line with the command's No. 3 priority—increasing the amount and quality of virtual, networked training— AFSOC is also focused on investing in new, high-quality simulators and infrastructure. In some cases, Heithold said, he has even elected to buy simulators ahead of aircraft. "We actually moved ... one AC-130 to the right, in order to buy three simulators on the front end, because we can do so much more now in the simulators," he said. "We are transforming the way we train to optimize human performance—more virtual training, more time in simulators," he explained. In the future, "we are going to shoot more, we are going to fly more, and we are going to train harder," both in and out of sims.

With all the current programs underway, Heithold is "confident we have the right tools coming" and that AFSOC equally has a solid program with "the right numbers and right capabilities" for the future fight. "We are working hard to modernize, recapitalize, and stay out front," he said.