

Aerial Refueling

Air Force Acquisition Strategy for KC-135 Replacement in Limbo **BY JAN TEGLER**



The Air Force has yet to determine a strategy for buying new aerial refueling aircraft that will replace much of its aged KC-135 fleet.

And as 2024 gets underway, the service still hasn't stated whether it will proceed with a competition for its KC-135 Tanker Recapitalization Program or negotiate a sole source agreement with KC-46A Pegasus maker Boeing.

Brian Brackens, spokesman for the service's Mobility and Training Aircraft Directorate, said: "We anticipate having an approved strategy later in 2024, but are unable to confirm with any precision when a [request for proposals] and contract award would follow."

That lack of clarity gives rise to questions including how soon the recapitalization effort can produce operational replacements for retiring KC-135s and the almost-retired 59-jet KC-10 fleet once currently programmed deliveries of KC-46As end in 2029. All KC-10s will be retired by September.

Also in question is whether the number of aircraft purchased as part of the tanker recapitalization program will provide sufficient capacity until

the service's Next-Generation Air-Refueling System program, known as NGAS, becomes operational.

Congress expressed its concerns about refueling capacity in mid-December with the release of the compromise National Defense Authorization Act for fiscal year 2024. Signed into law by the president just before Christmas, the bill prohibits the Air Force's use of 2024 funding to retire a number of KC-135s within the service's reserve components.

According to Air Mobility Command, the prohibition shouldn't impact the command's 2024 KC-135 planning.

"AMC plans to maintain the congressionally mandated air refueling inventory of 466 aircraft," command spokesman 1st Lt. Peyton Craven said. "AMC will meter KC-135 retirements accordingly to maintain this number. Future [Air Force] acquisition decisions will drive the exact number of KC-135s planned to remain in service."

Last summer, the Air Force conducted two proof-of-concept and compatibility demonstrations using contract aerial refueling services from Washington, D.C.-based Metrea and Alexandria, Virginia-based Omega Air Refueling Services. Metrea and

Omega carried out further work with fighters in October and November, refueling A-10s and F-16s respectively.

"Overall, short-term to mid-term tanker capacity is not a concern for the Air Force," said service spokesperson Ann Stefanek.

But she added that the Air Force is exploring how it could potentially leverage commercial aerial refueling in the future, revealing that the service's transition from legacy tankers to the KC-46A and the aircraft that will be procured under the tanker recapitalization program does strain capacity.

"As the Air Force retires KC-10 and KC-135 aircraft, there is a short conversion period where aircrews and maintainers are trained on the new KC-46A aircraft," Stefanek explained. "During each KC-46A unit conversion, there is a reduced availability of day-to-day tanker sorties until airmen in a unit are qualified. The Air Force does experience periodic day-to-day limitations on availability of tanker aircraft and crews as global demand shifts."

Late last September, the Air Force issued a formal request to industry for information on tanker recapitalization with an approved requirement for up to 140 aircraft. At the end of October, Lockheed Martin, which had teamed with Airbus to offer a special version of the European maker's A330 multi-role tanker transport, or MRTT, for the recapitalization program, unexpectedly announced its withdrawal from the partnership.

Lockheed's only public statements to date regarding its decision explained that the firm would redirect its focus to new opportunities, including developing solutions for the Next-Generation Air-Refueling System. Asked how quickly it might be able to take a design from concept to reality, the company declined to answer.

The Air Force announced an accelerated schedule for the program last year. Andrew Hunter, the service's assistant secretary for acquisition, technology and logistics, said, "We are looking at what is going to get us to NGAS. We think we will need about five years of tanker production from the current end of deliveries of KC-46 to get to increment one."

The current procurement rate of 15 KC-46As would amount to 75 tankers for the recapitalization program, roughly half of what had been expected, Hunter said at the Air &



A KC-10 performs its final mission in 2020.

Air Force photos

Space Forces Association's Warfare Symposium in March 2023.

The smaller buy is one of several reasons Lockheed Martin may have opted to bow out, according to Richard Aboulafia, managing director for AeroDynamic Advisory.

"You've got a competition that's always been a price shootout," he said. "You're up against a hot [KC-46A] production line. You've got the need to create a large new assembly facility here in the United States, and you're selling a more expensive plane. Oh, and you've got to satisfy the profitability requirements for two different contractors. How could you possibly come up with a competitive bid that wins?"

In the wake of Lockheed Martin's withdrawal, Airbus announced that it would respond to the KC-135 recapitalization request with a U.S. version of the A330 MRTT. But Airbus has been tight-lipped since then, declining to comment about whether it might base its offering on an upgraded version of the A330 known as the A330neo or if the tanker could include the AutoMate autonomous refueling system the company is developing.

Boeing, the only other firm that responded to the Air Force's request, will offer a version of the KC-46 with enhanced communications and airborne battle management systems as well as upgraded protection systems to improve aircraft survivability and "boom operator in-the-loop autonomous air refueling," according to Mike Hafer, the company's KC-46 business development director.

That aligns with Air Force requirements calling for an air-refuelable tanker derived from a commercial aircraft with minimal development. "These aircraft are expected to have capabilities similar to a KC-46A with Block 1 installed and potentially a digital backbone capable of Advanced Battle Management System/Joint All-Domain Command and Control integration," Stefanek said.

The Air Force awarded Boeing a \$184 million contract for Block 1 upgrades, including line-of-sight and beyond-line-of-sight communications with anti-jamming and encryption features last March.

Hafer said that Boeing's hot KC-46 production line and its ability to quickly transition to building upgraded Pegasus tankers for recapitalization offers "the most economically beneficial solution for the U.S. Air Force."

"We'll emphasize that it's very important to keep production rolling if the Air Force decides to go with the KC-46," he said. "When the last KC-X program aircraft delivers then we want to roll right into the 135 replacement airplane."

Boeing's argument for choosing the KC-46 seems to dovetail with previous statements from Air Force leaders — including Air Force secretary Frank Kendall and Hunter — who previously suggested the service could skip a competition for the KC-135 Tanker Recapitalization Program and buy improved KC-46s.

By the end of December, Boeing had delivered 79 Pegasus tankers to the Air

swap over of buying the next super tanker that has loads of requirements in it. Let's do it incrementally then cut that into the production line — just keep building the block upgrades to get you where you need to be."

With the Air Force's acquisition strategy still undetermined, Stefanek didn't comment on the idea of block deliveries. She said the service will "examine the best path forward in terms of meeting continuous, uninterrupted tanker recapitalization, and industry's ability to deliver new aircraft with specific capabilities."

Like Aboulafia, Tim Walton, a senior fellow with the Hudson Institute's Center for Defense Concepts and Technology, suggested that it will be hard for Airbus to offer a cost-competitive solution for the



KC-46A Pegasus



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Force. But the KC-46 still suffers from six category 1 deficiencies including its flawed remote vision system, or RVS. Hafer confirmed that Boeing's improved RVS 2.0 is still on track for "a late 2025 delivery."

Asked how Boeing might retrofit RVS 2.0 to the KC-46s delivered to date and to further deliveries while simultaneously building upgraded

versions of the tanker if chosen for the recapitalization program, Hafer said: "We do the retrofits at another location. I think we're looking at Cecil Field near Jacksonville, so it doesn't impact the production line."

If chosen, Boeing would prefer to deliver recapitalization tankers in blocks, he said. "Don't do a wholesale

tanker recapitalization program.

"To provide stability for the industrial base and cost savings to the government, the Air Force should reach a sole-source agreement with Boeing to procure additional KC-46s as soon as possible, and well before the end of the KC-46A contract," he recommended.

"Assuming NGAS will be ready for procurement by 2034, a buy of 75 aircraft would ensure KC-46 could be delivered until NGAS is ready for procurement," Walton said.

The ability to procure up to 140 tankers provides the Air Force with a hedge in case NGAS takes longer to develop than desired. KC-46 procurement should continue until that aircraft is ready so that the size of the Air Force's tanker fleet can remain stable and grow, he added. **ND**