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# 'Gray Hairs' With Nothing to Prove Strive for Future Vertical Lift Solution

**By Andrew Drwiega, Military Editor**

How does a small start-up company come out of nowhere in just over half a decade to land one of four contracts, each worth \$4 million, from the U.S. Army to conduct Configuration Trades Analysis studies for the next generation of military helicopter? It has a lot to do with the "gray-haired" engineering team that AVX Aircraft founder David Brody put together beginning in 2005. One of those men is president and chief engineer Troy Gaffey, who joined the company a year later. Gaffey is an ex-Bell Helicopter employee with a job history that stretches from tiltrotor to modern Hueys (V-22 EMD, BA609, Eagle Eye UAS tiltrotor, AH-1Z and UH-1Y). Line that up with AVX's ambition to offer not only a medium-size solution for the Joint Multi-Role, but also an OH-58F and an unmanned AVX rotorcraft.



*AVX medium range maritime unmanned aerial system (MRMUAS).*

Talking exclusively to *Rotor & Wing* at the U.S. Army's annual event in Nashville, Gaffey exudes the air of confidence of "been there, done that" that perhaps the U.S. Army's Aviation Applied Technology Directorate (AATD) warmed to. As one of the most experience engineers in the rotorcraft industry, he says AVX's success so

far is down to having an “engineering team, mostly ex-Bell Helicopter with ‘gray hairs/beards’ and lots of experience in rotorcraft.”

So what should the outside world make of AVX? Perhaps a team of people who feel they have little to prove? Just a bunch of guys who would keep on working in an industry they like rather than hang up the tool set and go fishing? It’s the reason why sports teams don’t have every position filled by a hot-shot who thinks he has the answer. Perhaps big company experience without the shackles of monolith decision-making may be the answer here?

Whatever it is—it has caught the imagination of the guys at Fort Eustis, Va., home of AATD. Gaffey views the development of the capability in methodical stages. “How do you reduce the fuel consumption; what can you do aerodynamically,” he questions. Gaffey believes AVX has the answer not only to the short term problem of what to do about the Armed Aerial Scout, but also a novel view on addressing Joint Multi-Role (now Future Vertical Lift) rotorcraft.



*AVX Joint Multi-Role/Future Vertical Lift transport.*

FVL needs to be one platform that can carry between nine and 12 people in addition to the crew. One airframe could probably do utility and attack—“more Y, less Z” he says, harking back to Bell’s Huey and Cobra upgrades to give his example substance.

Gaffey’s AVX timeline for its Future Vertical Lift aircraft follows these dates: technical demonstration 2017; RfP and contract award 2020; initial operating

capability 2030 (at the earliest); full operational capability and fleet roll-out from 2035 (although more likely 2037/38).

But the short-term goal is to design and build a couple of technical demonstration aircraft. Gaffey says that AVX is talking to aerostructures companies such as Aurora Flight Sciences (who describe themselves as a 'can do' company) and Triumph Aerospace Systems, whose pedigree includes working on the RAH-66 Comanche, the CH-53K and the OH-58D. Basically AVX is gathering together the specialists it needs with experience to take the company's ideas forward without everyone "losing their shirt" over the whole program.

"We don't need—or want—a big factory," explains Gaffey. His watchwords are affordability, experience and capability.