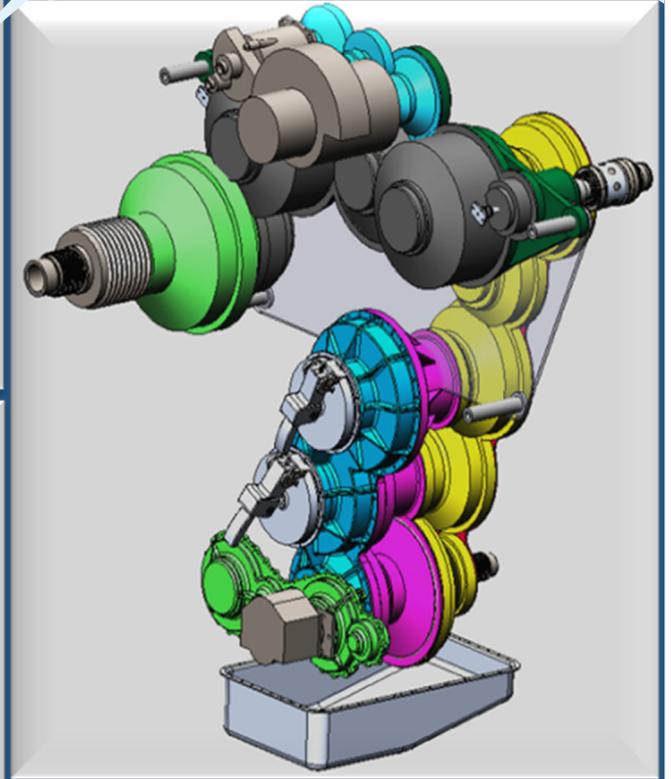
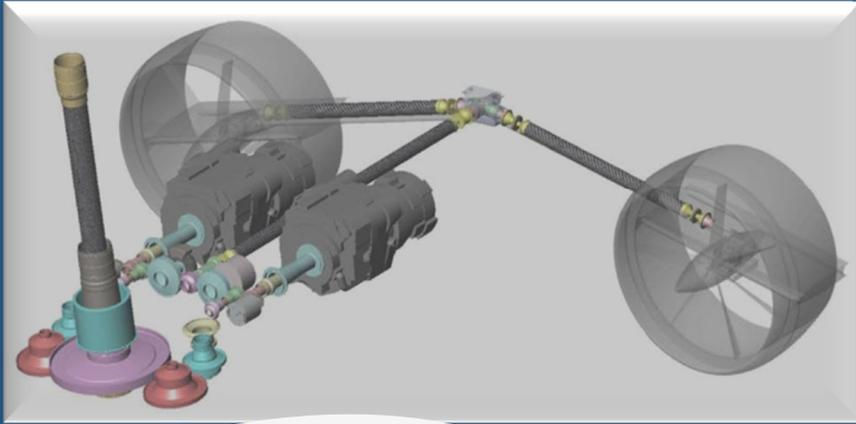
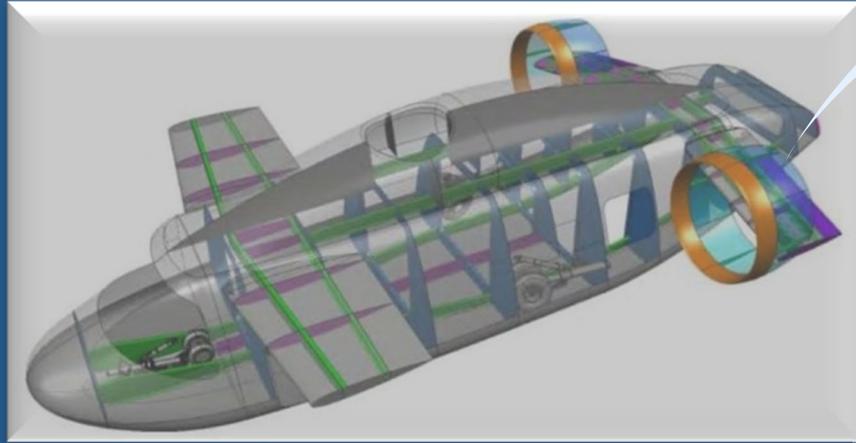




AIRCRAFT COMPANY



Innovative Rotorcraft Design
Component Design and Manufacture
Technology Innovation
Systems Performance Predictors

Flight Advanced



*Mr. Troy Gaffey
Chairman and CEO*

One of the most experienced executives and aeronautical engineers in the aircraft industry; he has been instrumental in the design and development of numerous civilian and military helicopters.

He has extensive expertise in

- Project Management,
- Tiltrotor Design/Technology
- Rotorcraft Aeromechanics,
- Test and Evaluation.

He played a major role in the development of

- Tiltrotor aircraft,
- Managed the technical, schedule, cost, procurement and production aspects of ;
- V22 EMD,
- BA609
- Eagle Eye Tiltrotors
- AH-1Z and UH-1Y USMC attack and utility helicopters,
- Bell 407, 430, and 427 .

About AVX Aircraft Company

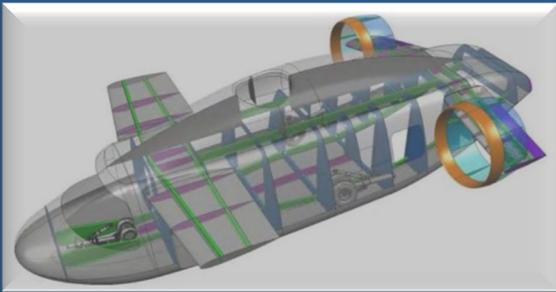
Founded in 2005, and headquartered in Fort Worth, Texas, AVX Aircraft Company employs helicopter industry veterans and executives with a combined experience across the entire spectrum of vertical lift skill sets including rotor system and transmission design, airframe design and integration and composite aircraft bonding systems.

AVX employs a horizontally integrated manufacturing strategy that utilizes a large complement of world-class aviation industry teammates. Through teaming with experienced aerospace companies for the development of AVX products, AVX keeps the costs of development and eventual production lower than our competitors while delivering the highest levels of aircraft performance.

AVX Aircraft Company's patented helicopter technology ("AVX Technology") is ideal for modifying existing fleets of helicopters that need performance upgrades, or building entirely new helicopters. AVX *Technology* consists of coaxial rotors and dual ducted fans, which combine proven technologies to achieve greater aerodynamic efficiency, speed, range, fuel efficiency, ability to operate in hotter temperatures and higher altitudes than conventional helicopters.

AVX has been awarded numerous contracts and received many patents for products including;

- CONTRACTS AWARDED BY U.S. ARMY TECHNOLOGY DEVELOPMENT DIRECTORATE-AVIATION TECHNOLOGY/SYSTEM INTEGRATION AND DEMONSTRATION (TDD-A/SID)
 - JOINT MULTI ROLE TECHNOLOGY DEMONSTRATOR (JMR-TD)
 - FUTURE ATTACK RECONNAISSANCE AIRCRAFT (FARA)
 - FUTURE LONG-RANGE ASSAULT AIRCRAFT (FLRAA)
 - ULTRA-RELIABLE DESIGN (URD)
- CONTRACTED BY NORTHROP GRUMMAN TO DESIGN, BUILD AND TEST 2000 HP TRANSMISSION AND ROTOR SYSTEM FOR TACTICALLY EXPLOITED RECONNAISSANCE NODE (TERN)
- PATENTS – AVX AIRCRAFT HAS RECEIVED AND APPLIED FOR PATENTS FOR:
 - COAXIAL-COMPOUND HELICOPTERS (INCLUDING DRIVE SYSTEM)
 - UNIQUE HELICOPTER ROTOR CONTROL SYSTEM
 - LIGHTWEIGHT GEARBOX FOR AIR CUSHION VEHICLES
 - LOCKING ASSEMBLY FOR LIGHTWEIGHT GEARBOX
 - ENVIRONMENTAL SEAL FOR LIGHTWEIGHT GEARBOX



AVX ADVANCED ROTORCRAFT DESIGN

AVX AIRCRAFT ENGINEERING TEAM COMPRISES EXPERIENCED, INNOVATIVE, AND VISIONARY ENGINEERING WITH DECADES DESIGNING, DEVELOPING AND SUSTAINING MULTIPLE ROTORCRAFT INCLUDING V-22, AH-1Z, UH-1Y, CH-53, AH-64

AVX AFFORDABLE AUTONOMOUS UNMANNED PLATFORM

NUMOURS VERSATILE PAYLOAD OPTIONS
CAPABLE OF WORLDWIDE OPERATIONS
IN AUSTERE ENVIRONMENTS

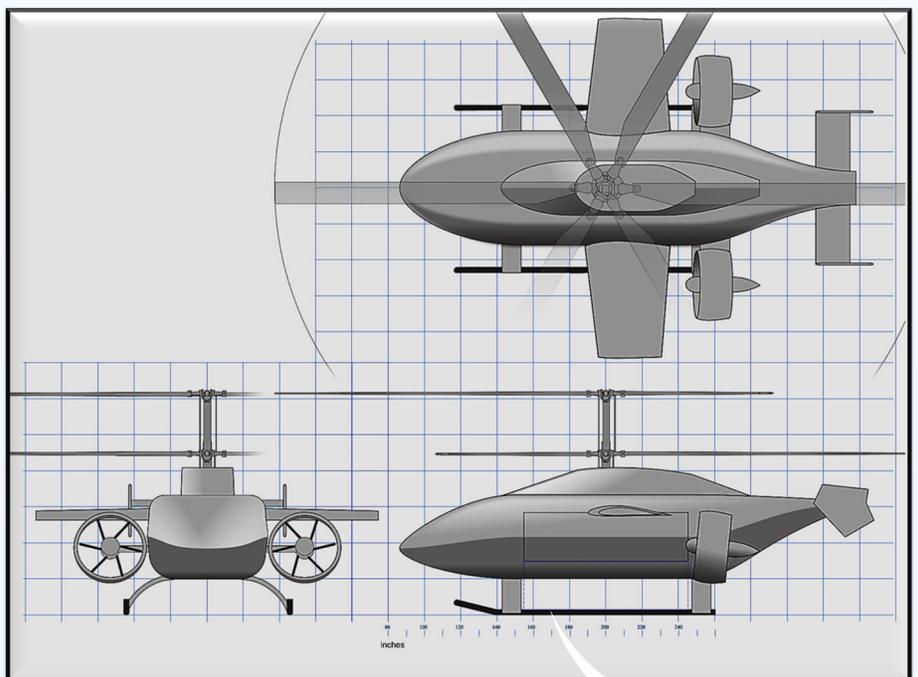
Air Vehicle Design

AVX Aircraft Company was founded with a vision of bringing advanced vertical takeoff and landing aircraft to the civil and military markets. Highly experienced engineers and professionals have created innovative designs, that use modern technology, to deliver visionary performance in the vertical lift environment.

AVX Aircraft Company's patented helicopter technology ("AVX Technology") is ideal for modifying existing fleets of helicopters that need performance upgrades, or building entirely new helicopters. *AVX Technology* consists of coaxial rotors and dual ducted fans, which combine proven technologies to achieve greater aerodynamic efficiency, speed, range, fuel efficiency, ability to operate in hotter temperatures and higher altitudes than conventional helicopters.

AVX has completed the preliminary design of several aircraft types and sizes including commercial and military helicopters and Unmanned Aerial Vehicles designed to operate in very high altitudes and hot temperatures with significantly increased speeds, payloads and fuel effi-

AVX Aircraft Company NEXT GENERATION UAV



AVX CUSTOM SOLUTIONS

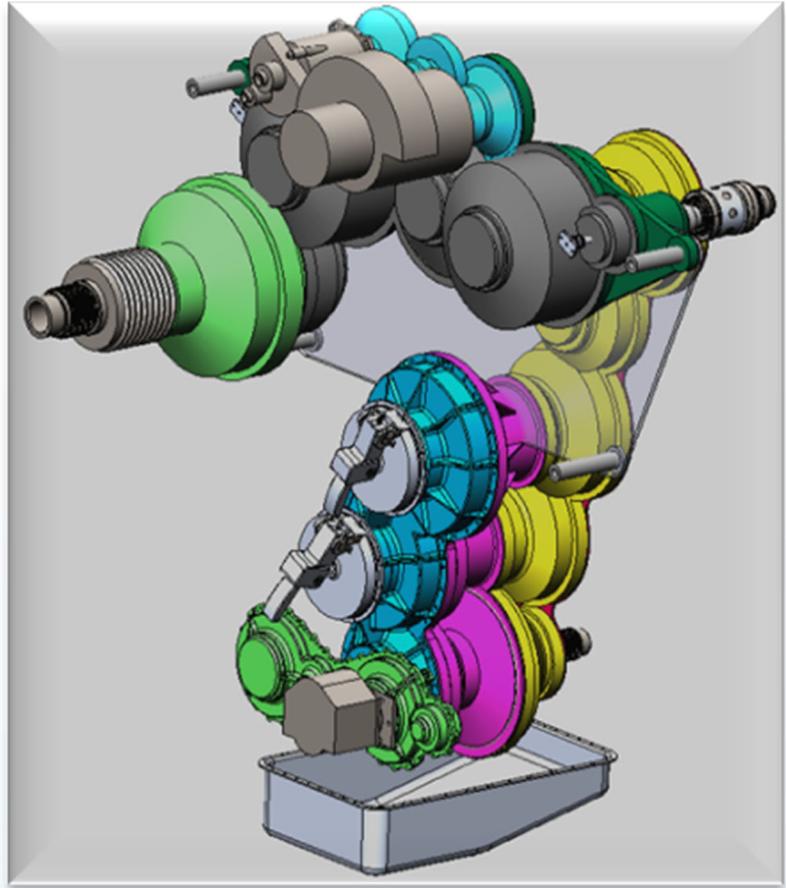


U.S. Navy Ship to Shore Connector

The AVX Aircraft Lightweight Gearbox is designed with advanced aerospace engineering criteria.

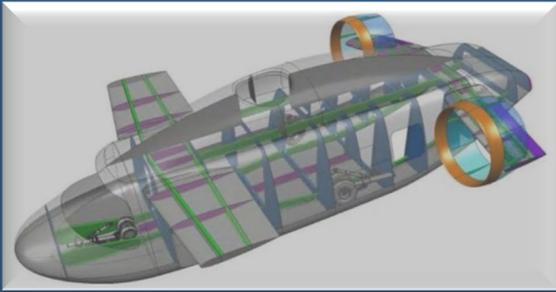
- Lighter weight – 30% weight reduction
- Self contained lubrication system – oil change 5 years
- 2 Speed manual selected lift fan static shift
- Double locking design lock nuts eliminate lock wire, retaining rings, locking screws
- Innovative environmental barrier protects carbon face seals
- No scheduled time between overhaul (TBO)
- 30-year, 4,500 operating hour life
- fuel efficient
- low maintenance
- reliable gearbox avoids costly repairs.

Light Weight Gearbox Design



U.S. Navy Ship to Shore Connector Light Weight Gearbox

The Ship-to-Shore Connector (SSC) is an Air Cushion Vehicle (ACV) providing amphibious transportation of equipment and personnel from ship to shore and shore to shore. Development of a performance improving, robust, maintainable, lightweight (max 4,730 lbs) and variable speed gearbox is paramount to SSC operation. Along with decreasing weight, making a more serviceable gearbox would lead to reduced repair costs. Additionally, an innovative multi-speed functionality would allow for increased efficiency and enable a reduction in fuel consumption. The new gearbox design must be compatible with the current craft regarding form, fit and function.

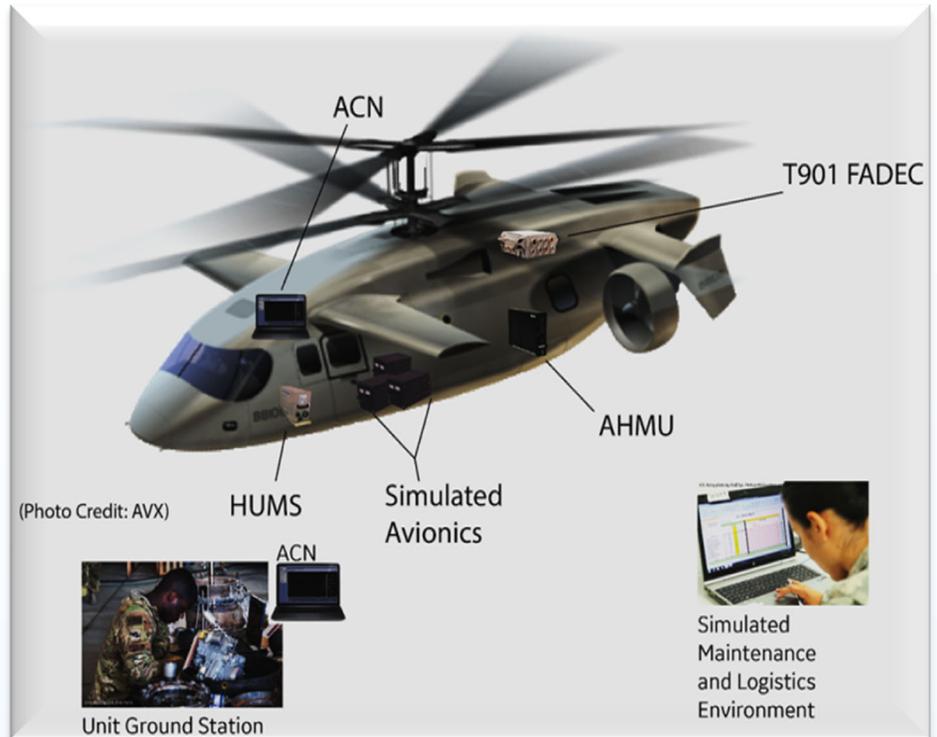


Rotorcraft Automatic Component Tracking (RACT) Program

AVX Advanced Research Studies

The RACT Program is part of a US Army Science & Technology program with the purpose of demonstrating a system that will allow aviation units in the field to better manage maintenance records in conjunction with higher level Army Maintenance & Logistics structures.

The RACT program is intended to explore new methods of tracking key components, including their usage, as well as overall aircraft health state. This will serve to aid better fleet management decisions and contributes to the U.S. Army's vision of zero-maintenance and minimization of forward operating sustainment needs.



- Automate component ID and tracking of usage, health state and maintenance history
- Autonomously communicate from individual components to on-board and off-board configuration usage, health state and maintenance history.
- Autonomously generate and populate aviation records including assessments of integrity, projected remaining useful life and recommended maintenance actions that are interlinked with the aircraft technical manual.



PROGRAM DETAILS

■ TEAM MATES:



**University
of Dayton**



University of Dayton
Research Institute

Bonded Airframe Structure Constructed with Surface Tolerant Adhesives

AVX Aircraft Company, in conjunction with Huntsman and the University of Dayton Research Institute (UDRI), is developing a surface tolerant adhesive in film form to manufacture bonded airframe structures. The novel adhesive, based on the Huntsman Araldite paste formulation, provides the aerospace industry with an alternative to standard adhesive systems, composite co-cure processes, and/or fastened joints (all of which present manufacturing and lifecycle management challenges). Standard adhesive systems require meticulous bond preparation and cleanliness process that do not lend themselves to widespread large scale assembly or in-field repair processes that are necessary to maintain mission tempo. The AVX/Huntsman/UDRI solution reduces the surface preparation constraints, enabling bonded structure manufacturing process optimization for cost and efficiency for Surface Tolerant Adhesives for Airframe Structures (STABAS) .





AVX FLRAA Design

AVX Highly Experienced Staff

AVX IS EXTREMELY EXPERIENCED IN ALL AVIATION DISCIPLINES

- AIRFRAME DESIGN
- TILTROTOR DESIGN
- TRANSMISSION DESIGN
- PROPULSION.
- ROTOR SYSTEM DESIGN
- AERODYNAMICS.
- AVIONICS.
- ANALYSIS, TESTING, EVALUATION
- COMPOSITE MATERIAL BONDING
- SYSTEMS INTEGRATION

 <p>TROY GAFFEY AVX CEO</p>	<ul style="list-style-type: none"> • 53 years of aeronautical engineering and leadership experience, including project management • Technology expert for tiltrotor and helicopter aeromechanics, test, and evaluation. • Platforms: V22 Osprey; XV-15, BA609, and Eagle Eye Tiltrotors; AH-1Z and UH-1Y USMC attack and utility helicopters; and Bell 407, 430, and 427 commercial helicopters.
 <p>KENDALL GOODMAN PRESIDENT AND COO</p>	<ul style="list-style-type: none"> • 28 years of aviation engineering and leadership. • Platforms: Joint Multi Role – Technical Demo (JMR-TD) and Team Lead for Bell V-247 “Vigilant” tiltrotor unmanned aerial vehicle development. • Survivability Technical Fellow. • EVMS budget and process milestone metrics development and tracking.
 <p>ALAN MYERS CHIEF ENGINEER</p>	<ul style="list-style-type: none"> • Over 50 years of experience in aviation design, analysis, testing, and qualifying rotorcraft and aerospace vehicles. • Responsible for the development of: AH-1Z, UH-1Y, OH-58D rotor and drive systems, 249 Cobra Demonstrator, 206LM Demonstrator, Model 412, and Model 430 commercial and military helicopters.
 <p>STAN MESSINGER AIR VEHICLE PROGRAM MANAGER</p>	<ul style="list-style-type: none"> • 35 years of experience, including Program Manager on the V-22 and Tern. • Supported multiple test programs, including H-1 fatigue test, V-22 static and fatigue test, V-22 drop test, Tern propulsion system test, and live fire test on V-22. • Performed structural analysis on the B-1 center and aft section and composite structural analysis on the B-2 wing.
 <p>DICK MURRAY TRANSMISSION ENGR</p>	<ul style="list-style-type: none"> • 50 years of experience in design, analysis, testing, evaluation, and field support for helicopter, tiltrotor, compound rotor, heavy equipment, missile, and marine drive systems. • Platforms: DAPRA Tern, V-22, Apache, MD900, MD500, and MD600. • Design and analysis lead on counter rotating rotor gearbox for the DARPA Tern Program. • Design, development, and testing of many of Bell’s drive systems, including the V-22 tiltrotor.
 <p>DALE SOWERS DEPUTY CHIEF ENGINEER</p>	<ul style="list-style-type: none"> • 35 years in engineering and leadership, including 17 years in design and integration of propulsion systems, engine integration and power plant design, fire protection, fuel, secondary power and environmental control systems. • Platforms, involving propulsion system integration include: OH-58D, 412EPI, M429, AH-1Z & AH-1Y, M609, and V22.



AVX Aircraft Company

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Flight Advanced