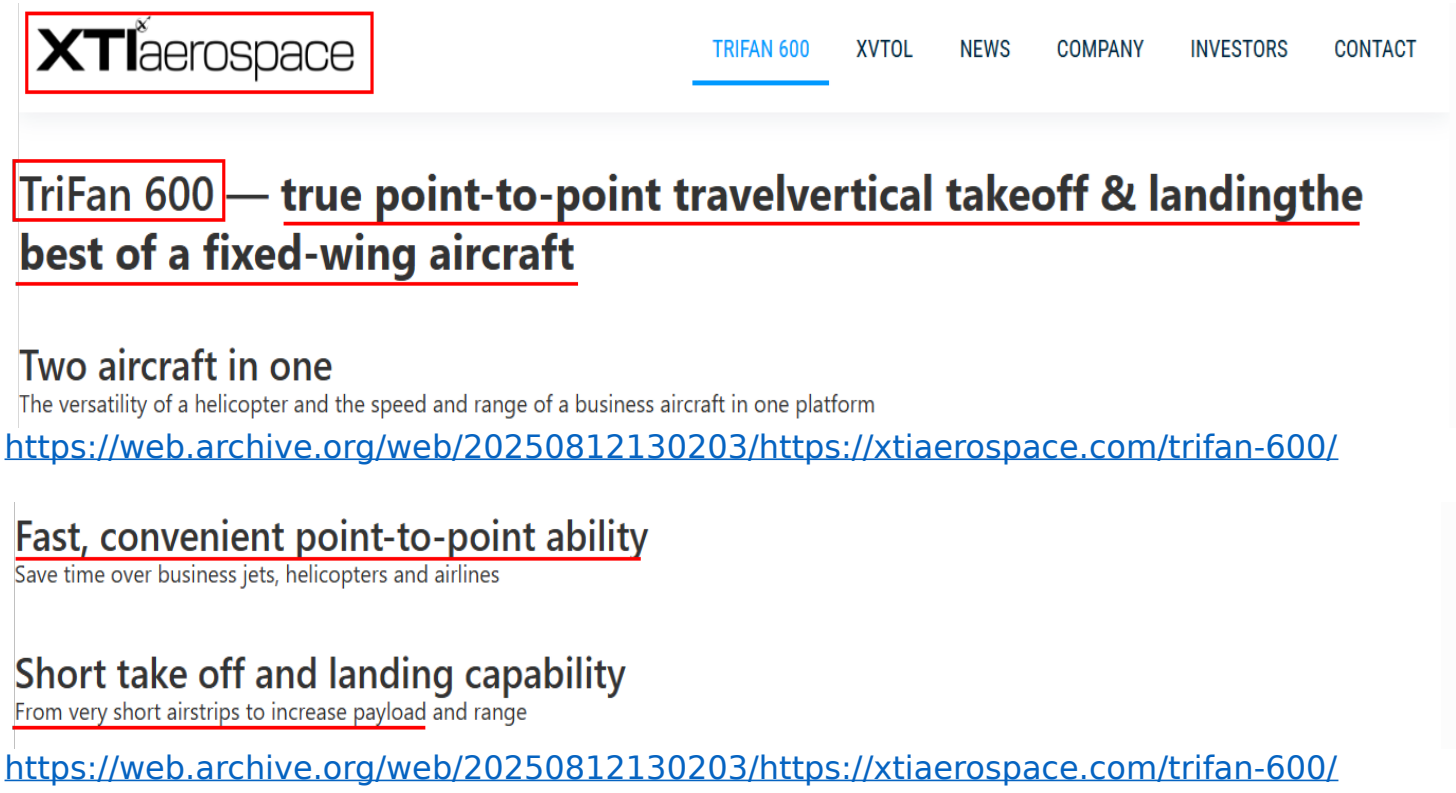
Exhibit 2

US12197178B2	XTI Aerospace TriFan 600("The accused product")
1. A transportation method for transporting a payload with one or more objects or people, comprising:	The accused product discloses a transportation method (e.g., aerial transportation) for transporting a payload with one or more objects or people (e.g., passengers, cargo, etc.). As shown below, the accused product is a transportation aircraft for transporting passengers. It supports up to six passengers plus a pilot for point-to-point aerial transportation.  https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/ https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

Performance

Capacity	Pilot + up to 6 passengers — a payload with one or more people
Capacity	Pilot + up to 6 passengers
Cruise Speed	Over 300 mph (270 knots/500 kph)

https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

Designed for versatility

Business, commuter and air ambulance configurations.

payload with one or more objects or people



https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

	The aircraft accommodates a pilot plus up to six passengers in a pressurized cabin that climbs to 25,000 feet. These specifications place it closer to turboprop performance than typical eVTOL capabilities, enabling missions like New York to Atlanta without stopping while landing on helipads at both ends. XTI calls this category a "vertical lift crossover airplane" (VLCA), targeting these three markets: regional air mobility connecting cities within a 500-mile range; air ambulance missions requiring rapid ICU-level patient transfers; and executive transport enabling point-to-point travel without commercial aviation delays. https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update **Technical Specifications and Performance** The TriFan 600's comprehensive performance envelope reflects its business aviation aspirations: **Parameter** | **Specification** **Seating Capacity** | 1 pilot + 6 passengers https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update
providing a vehicle having a propulsion unit movably coupled to a frame enclosing the payload between a first	The accused product discloses that providing a vehicle having a propulsion unit (e.g., a propulsion unit of the accused product such as turboshaft engines) movably coupled to a frame (e.g., a frame comprising aircraft engine and ducted fans assembly) enclosing the payload (e.g., passengers, cargo, etc.) between a first position during lift-off (e.g., vertical take-off position) and a second position (e.g., horizontal position) during flight.

position during lift-off and a second position during flight;0 **Col 4: lines 36-39** *As vehicle 10 transitions from vertical takeoff and landing mode to forward flight mode, vehicle 10 is maintained in a generally horizontal attitude for the safety and comfort of passengers, crew and/or cargo carried in cab*	As shown below, the accused product is a transportation aircraft for transporting passengers. It comprises a propulsion unit with two turboshaft engines. These engines power the movable ducted fans coupled to the aircraft frame. During take-off, the fans are positioned vertically (e.g., a first position during lift-off) to provide upward thrust. Once airborne, they rotate to a horizontal position (e.g., second position during flight), transitioning the aircraft to wing-borne forward flight. **Fast, convenient point-to-point ability** Save time over business jets, helicopters and airlines **Short take off and landing capability** From very short airstrips to increase payload and range https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/ The aircraft accommodates a pilot plus up to six passengers in a pressurized cabin that climbs to 25,000 feet. These specifications place it closer to turboprop performance than typical eVTOL capabilities, enabling missions like New York to Atlanta without stopping while landing on helipads at both ends. XTI calls this category a “vertical lift crossover airplane” (VLCA), targeting these three markets: regional air mobility connecting cities within a 500-mile range; air ambulance missions requiring rapid ICU-level patient transfers; and executive transport enabling point-to-point travel without commercial aviation delays. https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update

Capacity VTOL Range (vertical takeoff and landing)	Pilot + up to 6 passengers 1,000 miles (helipad to helipad)
Capacity STOL (short takeoff and landing)	Pilot + up to 6 passengers Allows operations from very short runways with front fans in intermediate positions
Capacity Propulsion	Pilot + up to 6 passengers Two fuel-efficient turboshaft engines with a future development path leading to zero emissions

https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

Technical Specifications and Performance

The TriFan 600's comprehensive performance envelope reflects its business aviation aspirations:

Parameter	Specification
Seating Capacity	1 pilot + 6 passengers
Cruise Speed	345 mph (555 km/h)
Service Ceiling	25,000 ft
VTOL Range	700 statute miles
Conventional Range	850 statute miles
Propulsion System	Twin Honeywell HTS900 turboshaft engines
Power Output	1,021 shaft horsepower each at sea level
Certification Basis	Single-pilot IFR operations
Emergency Configurations	Air ambulance/medevac capable

https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update

	The Power Behind the Promise The TriFan 600's ambitious performance comes from twin Honeywell HTS900 turboshaft engines producing 1,021 shaft horsepower each at sea level. These aren't experimental electric motors; they're proven turbine engines that burn jet fuel and deliver the power density needed for real-world missions. The propulsion system routes power through a complex drivetrain to three ducted fans: two forward fans that tilt for transition flight and one rear fan used only during vertical operations. Triumph Geared Solutions provides the primary and secondary gearboxes, Kamatics Corporation handles precision drive shafts, and Formsprag Clutch develops the clutch mechanisms. https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update

Engineering Challenges: From Vertical Lift to Wing-Borne Flight

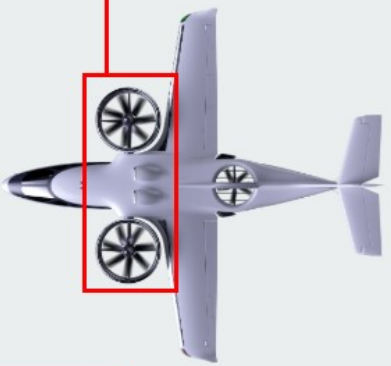
The dual-mode operation of the TriFan 600's ducted fans presents several key engineering challenges:

1. Efficient Vertical Lift for Takeoff

The ducted fans must generate enough thrust during vertical takeoff to lift the aircraft's full weight with enough control and maneuvering margin. This requires careful aerodynamic shaping of the duct to maximize airflow and minimize energy loss. Engineers at XTI use advanced computational fluid dynamics (CFD) simulations to optimize the duct shape, ensuring it provides maximum thrust efficiency during takeoff and landing.

The design must also account for rapid deceleration and controlled descent during landing. Balancing these requirements involves refining the fan blade angles, shroud geometry, and intake configurations to deliver precise performance.

first position



2. Smooth Transition to Wing-Borne Flight

Once airborne, the TriFan 600 transitions from vertical lift to wing-borne flight. This shift requires the ducted fans to reduce their thrust output as the wings take over the role of providing lift. This transition must be seamless to avoid loss of stability or control.

second position

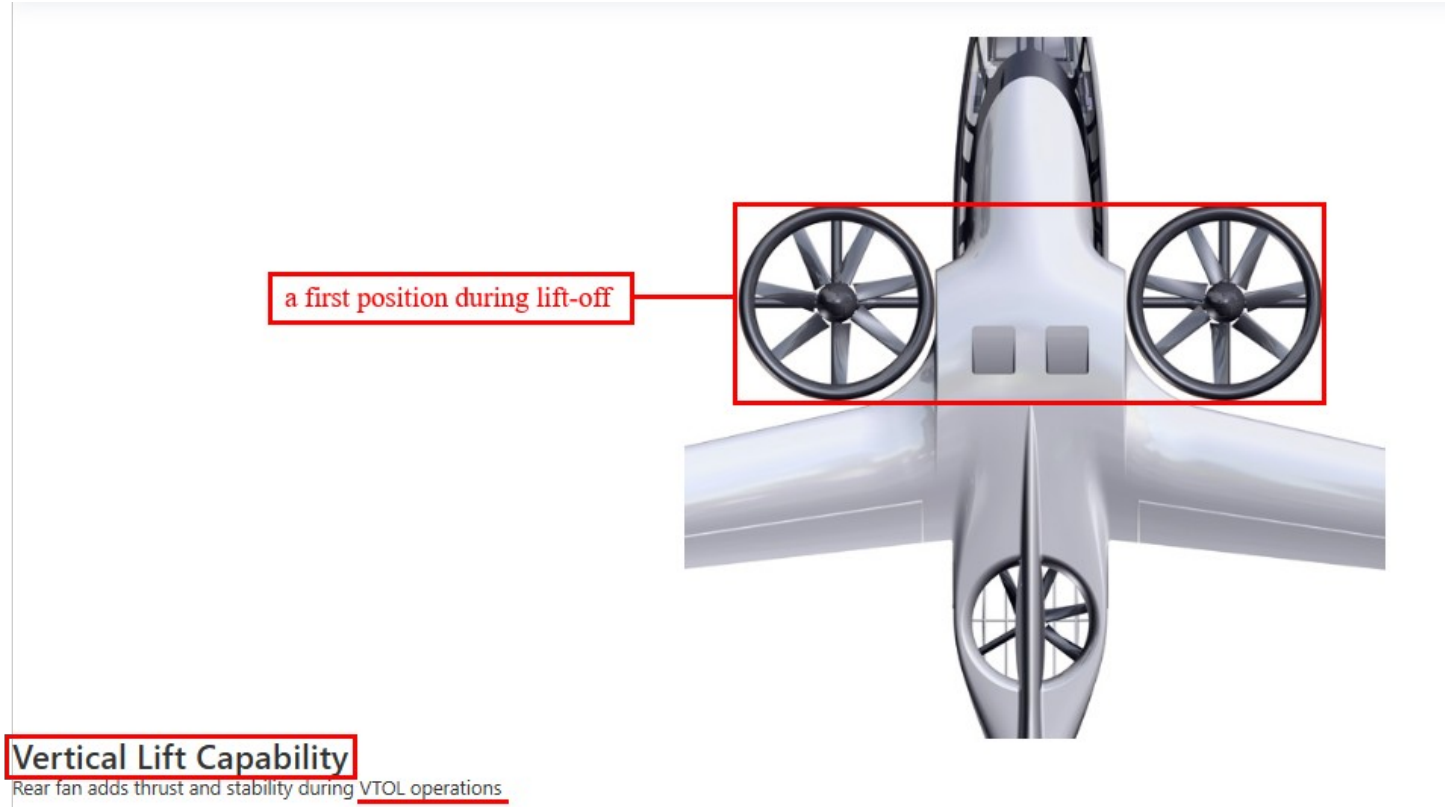


https://xtiaerospace.com/blog/from-vertical-lift-to-forward-flight-how-engineers-optimize-rotating-ducted-fans-for-performance/

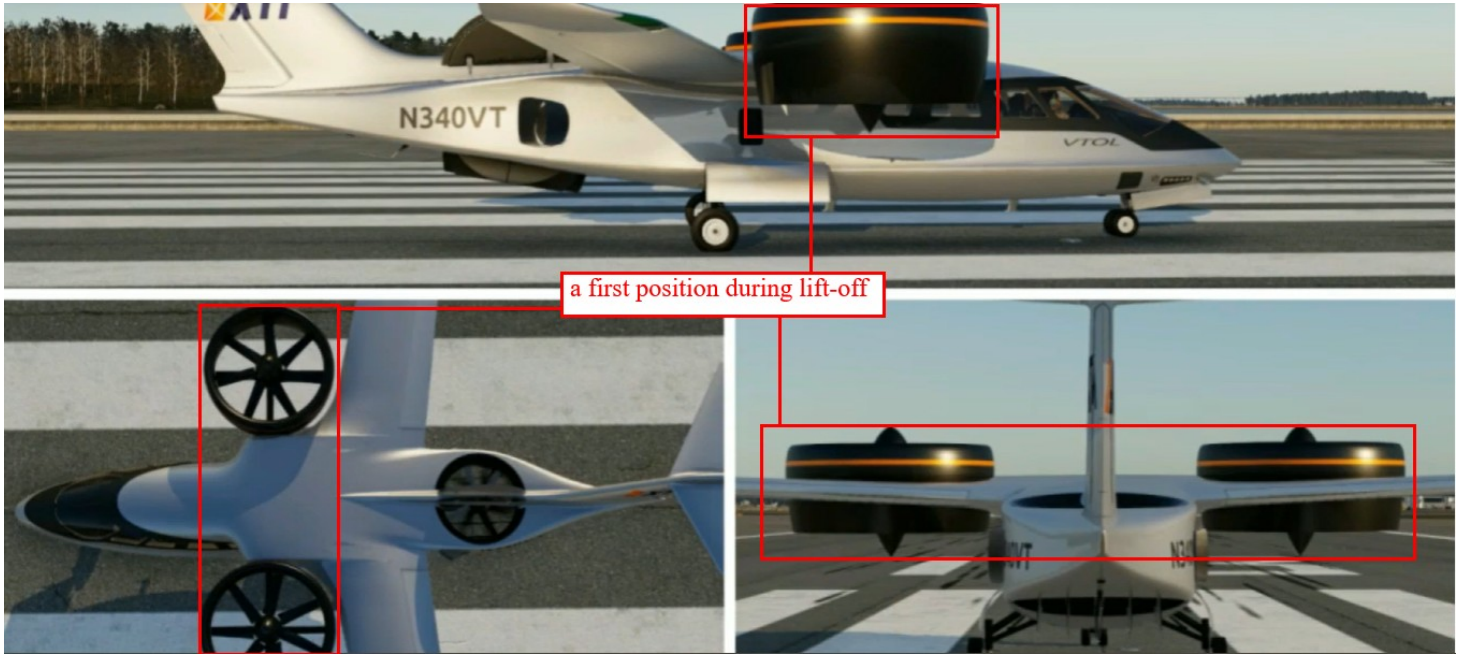
Vertical takeoff with the speed, range and comfort of a business aircraft

The TriFan 600 elegantly blends the best of a business jet and a helicopter into one revolutionary aircraft.

https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/



https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

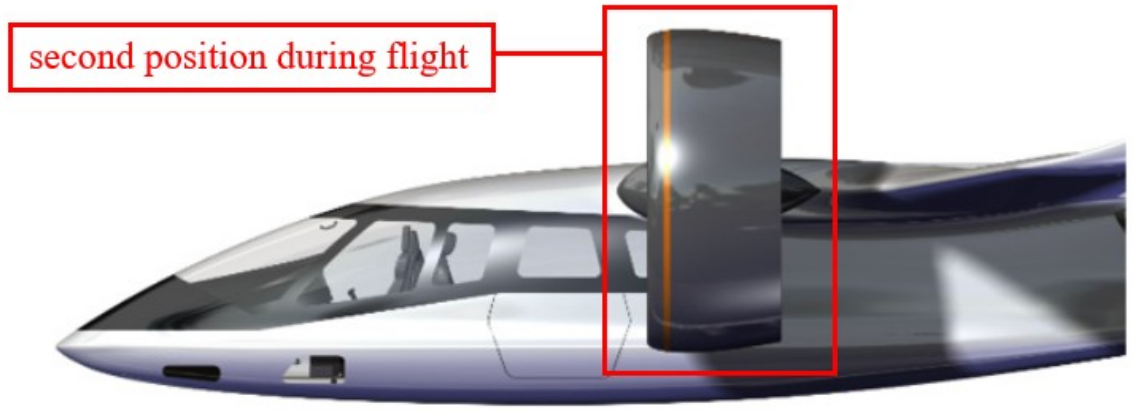


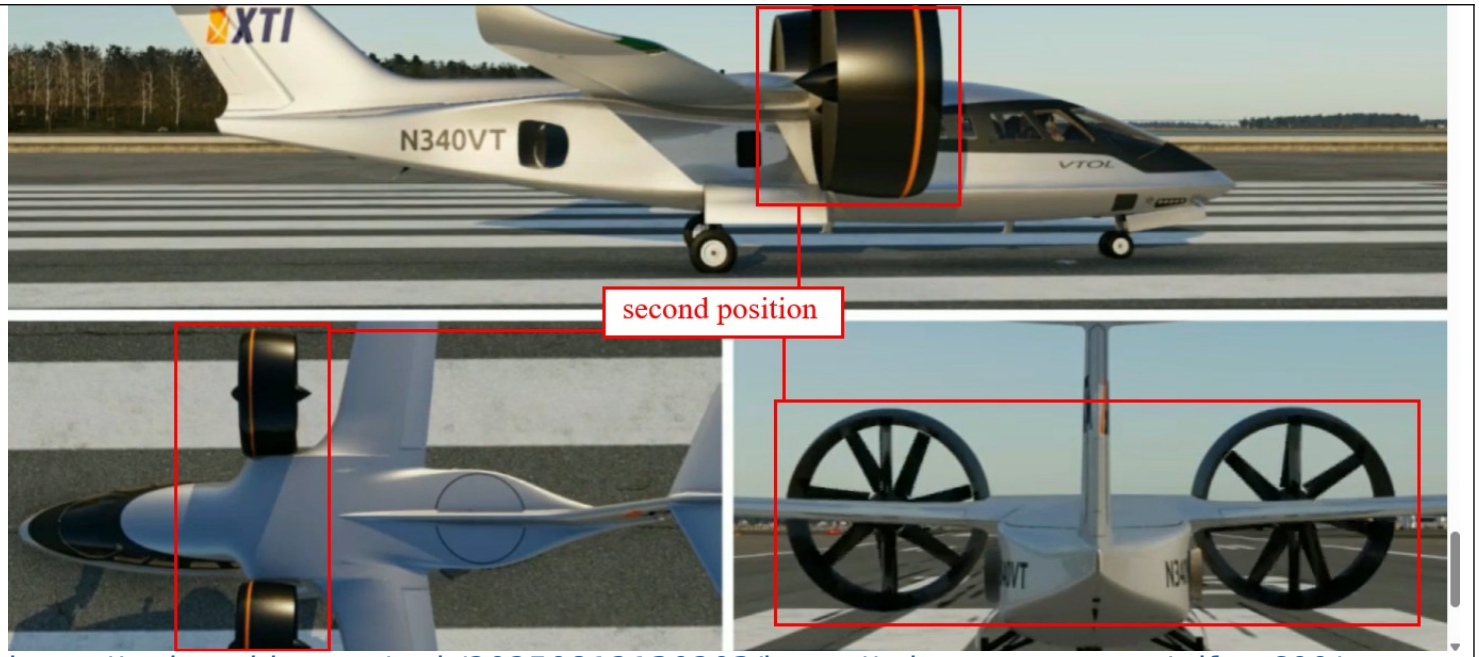
https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

This arrangement enables three operational modes. For vertical takeoff, all three fans provide upward thrust. Once airborne, the front fans tilt forward and the aircraft transitions to conventional wing-borne flight while the rear fan shuts down and gets covered to reduce drag. The aircraft can also use short runways by positioning the front fans at intermediate angles.

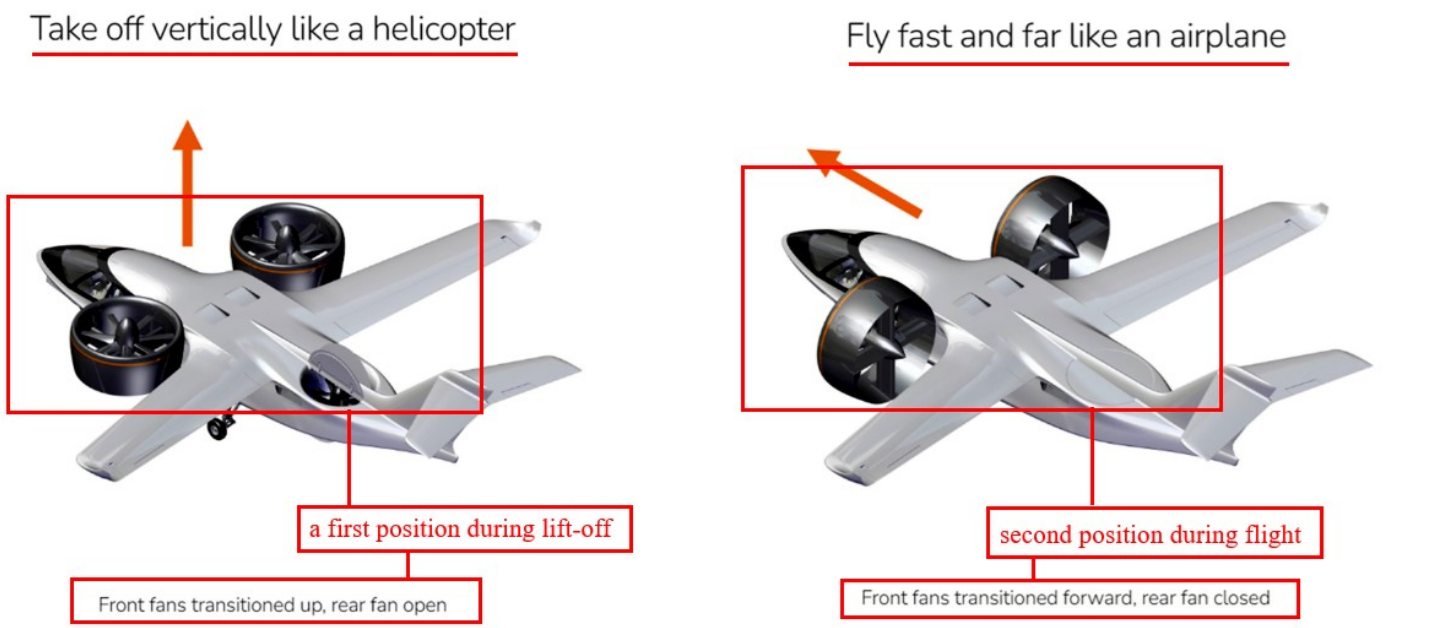
second position during flight

https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update

	 https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/



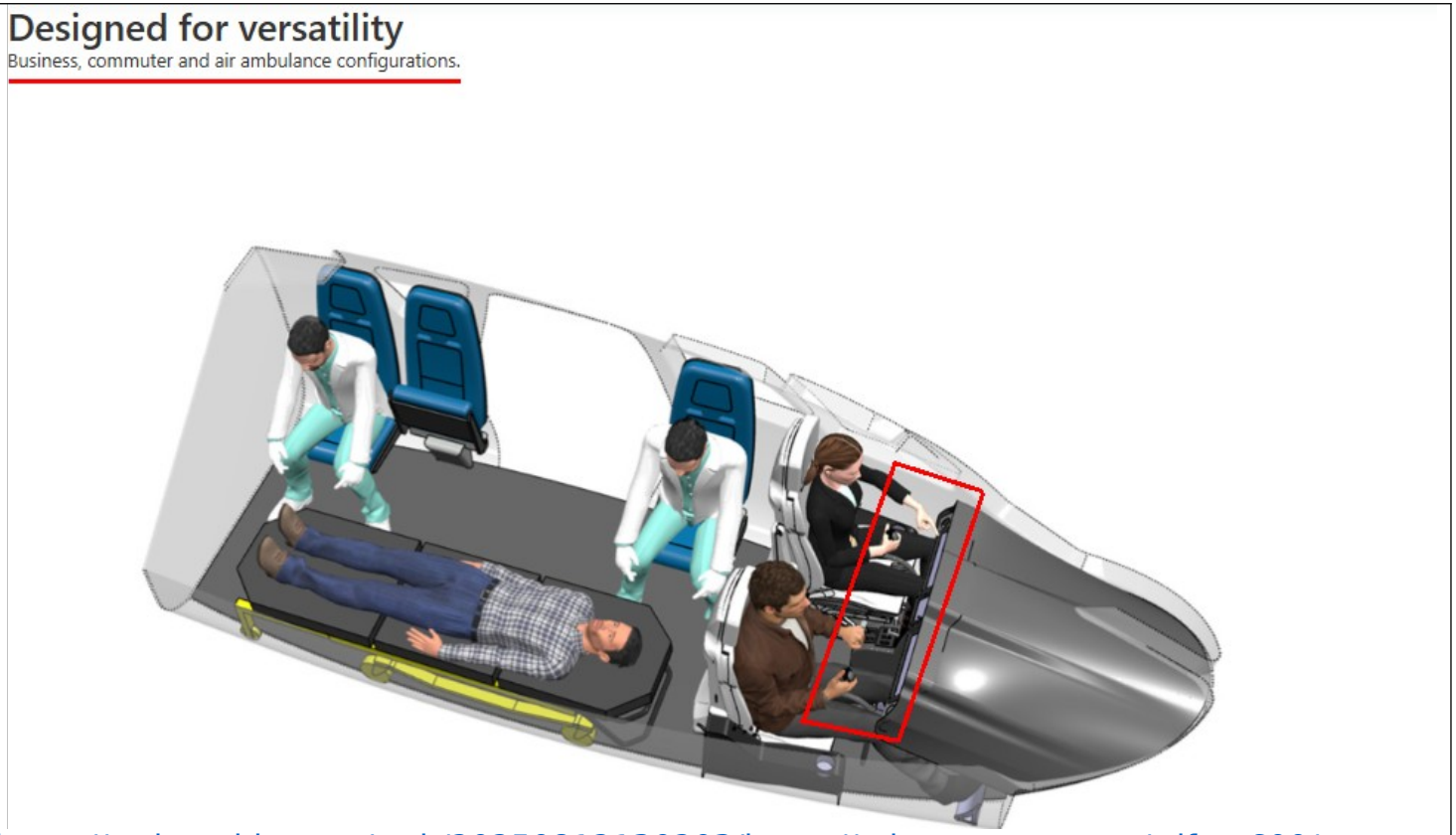
https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

	 https://evtol.news/__media/Aircraft%20Directory%20Images/XTI%20Aircraft%20TriFan%20600%20VLCA%20Special/XTI-TriFan-verticla-forward-flight-graphic.jpg
determining a control gesture as captured by a plurality of cameras or sensors in the vehicle; and **Col 7: lines 9-12** *In one aspect, a vehicle includes: a cab with an optional passenger seat*	The accused product discloses that determining a control gesture (e.g., touch gestures, etc.) as captured by a plurality of cameras or sensors (e.g., onboard aircraft touchscreen having sensors, etc.) in the vehicle (e.g., the accused product). As shown below, the accused product is a transportation aircraft for transporting passengers. It comprises display system and touch controller for pilot operation. It also allows the pilot to use the controller for detecting and processing the control movements.

with optional steering control; a propulsion unit having a rotating blade and an engine to rotate the blade; autonomous flight electronics to control the propulsion unit;	**Excellent Visibility** Optimized windows augmented with cameras improve pilot's situational awareness https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/ **Recent Milestones: Garmin Partnership and FAA Progress** XTI's momentum accelerated through 2025 with three critical developments that signal serious progress toward certification. On August 21, 2025, the company announced its selection of the Garmin G700 TXi avionics system for the TriFan 600. This isn't just another vendor choice; it represents a strategic de-risking move that leverages proven hardware with extensive certification history rather than developing proprietary systems from scratch. https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update **MODERNIZE YOUR PISTON, TURBOPROP OR JET** Upgrade with TXi™ touchscreen flight displays that deliver advanced PFD/MFD/EIS capabilities and provide an all Garmin retrofit path for your aircraft. They're available as G500 TXi, G600 TXi and G700 TXi displays to meet software-assurance levels required for certification in select Class I/II/III/IV aircraft. https://www.garmin.com/en-US/aviation/txi/

	Advanced Avionics for a Next-Generation Regional xVTOL Aircraft ENGLEWOOD, Colo., Aug. 21, 2025 /PRNewswire/ — XTI Aerospace, Inc. (Nasdaq: XTIA) ("XTI"), a pioneer in xVTOL and powered-lift aircraft solutions, announces the selection of the Garmin G700 TXi avionics system for its flagship TriFan 600, the revolutionary xVTOL aircraft for fast, comfortable regional travel.  The selection marks a significant milestone for the TriFan 600 program, delivering unmatched situational awareness, enhanced flight safety, and future-ready cockpit technology to XTI's aircraft platform. The Garmin G700 TXi system — designed for cutting-edge business aviation — features: • Dual large-format PFDs and MFDs with touchscreen interfaces and intuitive pilot control • Synthetic Vision Technology (SVT™) for enhanced terrain and obstacle awareness • Advanced flight management capabilities • Dynamic maps and charts • Satellite weather https://xtiaerospace.com/press-release/xti-aerospace-selects-garmin-g700-txi-avionics-system-for-revolutionary-trifan-600-aircraft/

	 https://www.garmin.com/en-US/aviation/txi/

	 https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/
determining one or more vehicle control options based on a computer model, a current state of the vehicle and an environment of the vehicle.	The accused product discloses determining one or more vehicle control options (e.g., control system of the accused product, etc.) based on a computer model (e.g., a fly-by-wire flight-control system), a current state of the vehicle (e.g., aircraft speed, altitude, operating condition, etc.), and an environment of the vehicle (e.g., weather conditions, etc.). As shown below, the accused product comprises a fly-by-wire flight-control system that provides computerized control of the aircraft. The system monitors the aircraft's current

	state, including its speed, altitude, and operating condition. It also receives information about the surrounding environment such as weather conditions. Based on this information, the system determines and implements vehicle-control options such as emergency descent, etc.  https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/ passengers around a central aisle, with large windows and configurable luxury interiors. A sliding fuselage door conceals the third fan during cruise, reducing drag. The fly-by-wire flight control system integrates advanced safety features, including envelope protection, autopilot, and synthetic vision. https://lowaltitudeeconomy.aero/en/directory/electrified-aircraft/combustion-electric-hybrid-aircraft/combustion-electric-evtol/xti-trifan-600

	Recent Milestones: Garmin Partnership and FAA Progress XTI's momentum accelerated through 2025 with three critical developments that signal serious progress toward certification. On August 21, 2025, the company announced its selection of the Garmin G700 TXi avionics system for the TriFan 600. This isn't just another vendor choice; it represents a strategic de-risking move that leverages proven hardware with extensive certification history rather than developing proprietary systems from scratch. https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update With the inclusion of the Garmin G700 XTi flight deck, the aircraft will offer pilots outstanding navigation, communication, surveillance, situational awareness and aircraft monitoring during every phase of flight. https://xtiaerospace.com/press-release/xti-aerospace-selects-garmin-g700-txi-avionics-system-for-revolutionary-trifan-600-aircraft/

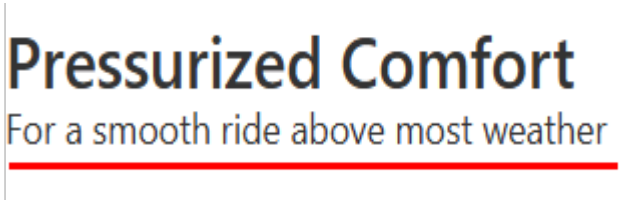
	The Garmin G700 TXi system — designed for cutting-edge business aviation — features: • Dual large-format PFDs and MFDs with touchscreen interfaces and intuitive pilot control • Synthetic Vision Technology (SVT™) for enhanced terrain and obstacle awareness • Advanced flight management capabilities • Dynamic maps and charts • Satellite weather • Smart autopilot integration with envelope protection and emergency descent mode • Seamless interface with Garmin weather radar, data links, ADS-B, and other optional equipment and services https://xtiaerospace.com/press-release/xti-aerospace-selects-garmin-g700-txi-avionics-system-for-revolutionary-trifan-600-aircraft/

Technical Specifications and Performance

The TriFan 600's comprehensive performance envelope reflects its business aviation aspirations:

Parameter	Specification
Seating Capacity	1 pilot + 6 passengers
Cruise Speed	345 mph (555 km/h)
Service Ceiling	25,000 ft
VTOL Range	700 statute miles
Conventional Range	850 statute miles
Propulsion System	Twin Honeywell HTS900 turboshaft engines
Power Output	1,021 shaft horsepower each at sea level
Certification Basis	Single-pilot IFR operations
Emergency Configurations	Air ambulance/medevac capable

https://web.archive.org/web/20251206131251/https://businessaviation.aero/evtol-news-and-electric-aircraft-news/advanced-air-mobility/xti-trifan-update



https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

Capacity	Pilot + up to 6 passengers
Certification	Will be certified single-pilot IFR (Instrument Flight Rules) for flight in inclement weather and known icing

https://web.archive.org/web/20250812130203/https://xtiaerospace.com/trifan-600/

Also, since the TriFan intends to directly address the business aircraft and helicopter markets, it is imperative that it be able to operate under all weather conditions. It will be certified "single-pilot IFR" and will be able to operate in poor visibility, rain, clouds, snow and icing conditions. This coupled with ample energy reserves will give XTI's TriFan 600 a significant competitive advantage over eVTOL aircraft, which will for the most part (due to battery limitations) be limited to good weather VFR operations only.

https://www.linkedin.com/posts/vtol-trifan600-aviation-share-7272304684344729600-xcz8/

	In addition to being able to take off and land vertically, the TriFan will have the added flexibility to also take off from very short and longer runways, increasing payload and extending range. It will be certified for inclement weather operations (Instrument Flight Rules (IFR) including known icing conditions. This is critical for XTI's target customers. The combination of these attributes in a single aircraft is unique in civil aviation. By combining VTOL, long range and all-weather flight, XTI's TriFan can effectively replace two aircraft – a fixed-wing airplane and a helicopter. Thus, the TriFan establishes a new category of aircraft — xVTOL, with extended capabilities and an expanded scope of operational possibilities, especially compared to eVTOLs. https://xtiaerospace.com/blog/why-turboshaft-engines-for-xtis-trifan-600-vtol-airplane/