FLIGHT KINETICS, INC.™

Optimizing Electric Aircraft

Introducing PropWings™

Enhanced Lift for Electric Aircraft

Contact: Lester Erlston
FlightKinetics@usa.com
USA 503-453-5316

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Introduction

- **Flight Kinetics, Inc.** is developing a high-lift technology, called **PropWings™**, for electric and hybrid-electric Vertical Takeoff and Landing (eVTOL) aircraft.
- **PropWings™** is a proprietary, patent-pending, technology applicable to a wide range of eVTOL, and eSTOL (Short Takeoff), designs, to enable longer flying range, heavier payloads, with greater safety and efficiency.
- **eVTOLs** are expected to be the workhorse aircraft for air taxis and shuttles, urban cargo logistics, and emergency response aircraft, both piloted and autonomous.
- **Analysts estimate** that the global eVTOL aviation segment will grow to $97B (36% CGAR) from 2025 and 2033, with air taxi sales alone of 30,000 units by 2045, driven by Advanced Air Mobility (AAM) and Urban Air Mobility (UAM) initiatives that look to transform the aviation industry. The market is on an exponential growth trajectory, with North America projected to be the fastest growing region.
- **The key to PropWings™ efficiency** is its utilization of previously unused kinetic energy in the propeller slipstream, to significantly amplify lift and thrust, increase the performance envelope, and offset battery limitations.

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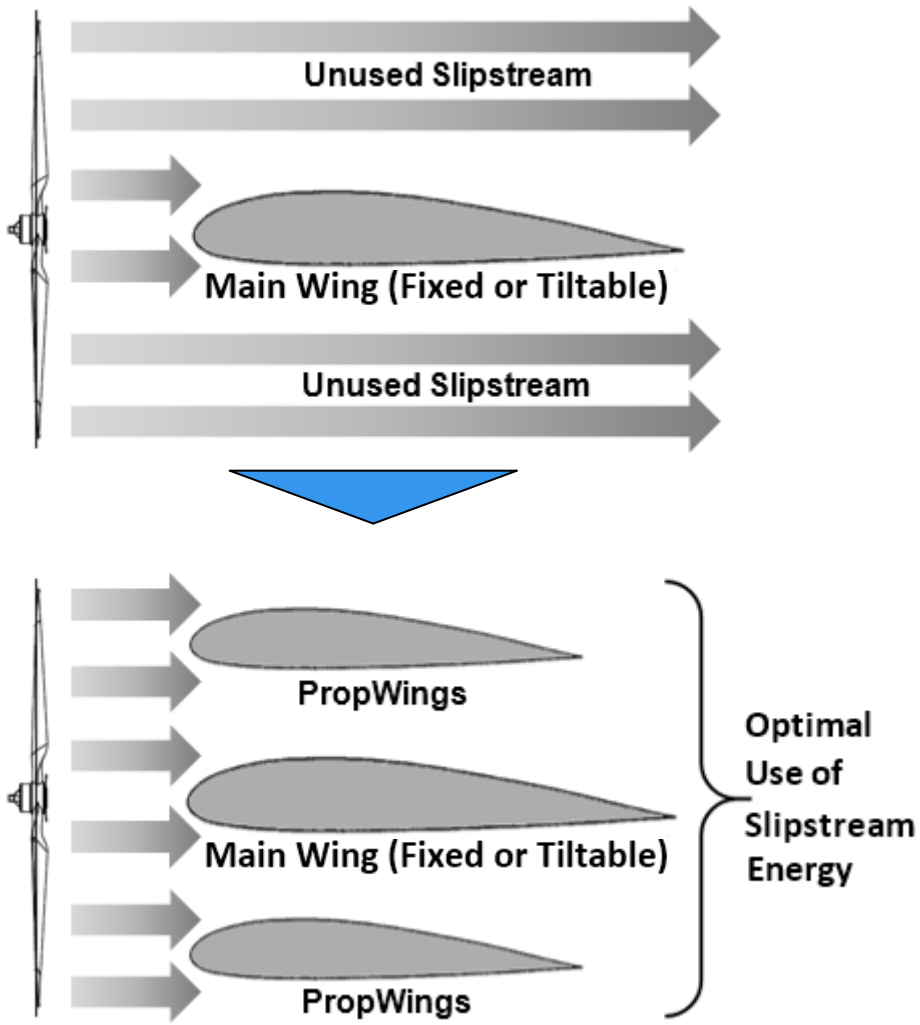
How PropWings™ Work

Technology Overview:

- Over 50% of propeller slipstream is wasted and does not interact with the main aircraft wing for lift.
- PropWings™ repurposes the energy already expended by the propeller in generating thrust, for increased lift.

- **PropWings™ locates additional wingspan into the unused propeller slipstream, to generate lift.**
- **PropWings™ increases the main wing's effective wingspan, reducing induced drag to improve energy efficiency during cruise flight.**



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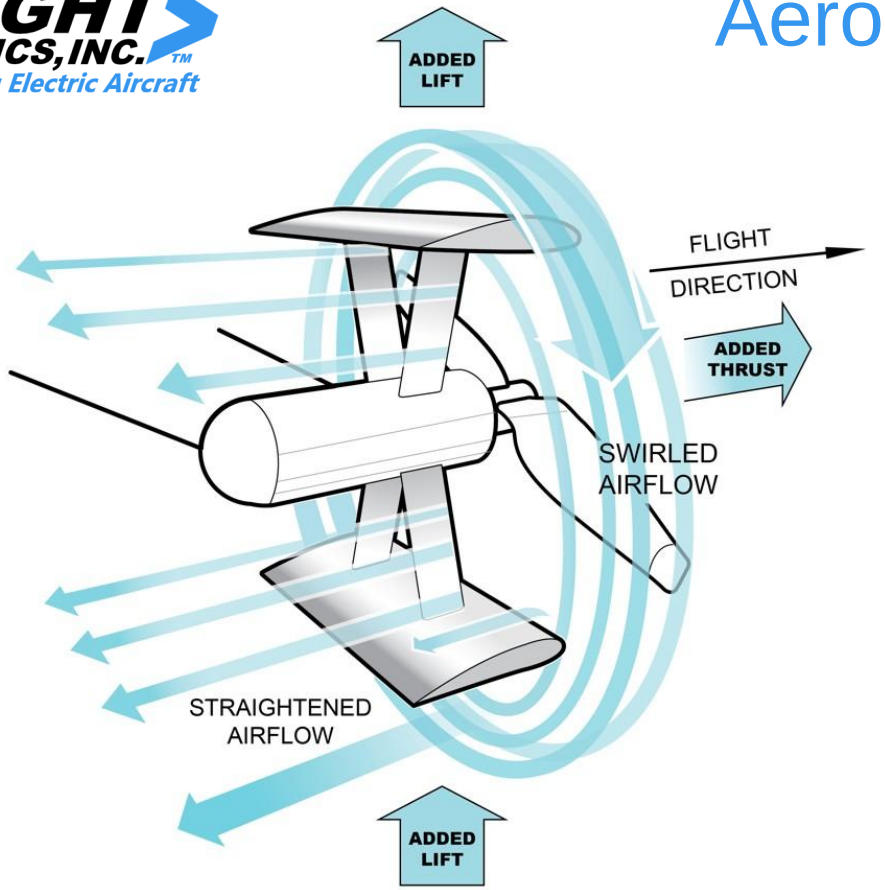
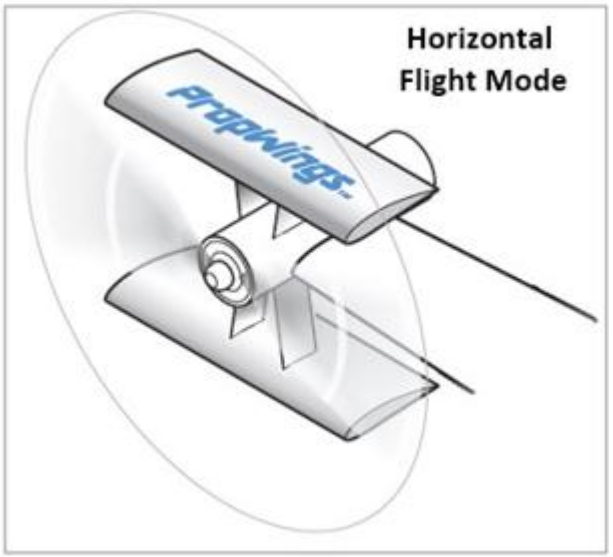
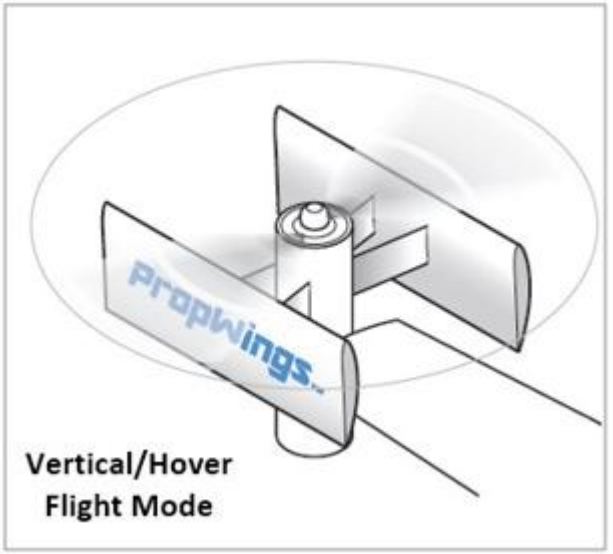
Aerodynamic Innovation







- **Energy Recovery:** Converts the high energy airflow that is conventionally lost as turbulence into increased lift and thrust.
- **Blown Lift:** Captures high-velocity slipstream energy to generate massive lift independent of forward airspeed.
- **Swirl Recovery:** Integrated pylon-vanes straighten helical flow, converting wasted rotational energy into axial thrust.

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PropWings on Representative Aircraft

PropWings™ is the only electric and hybrid-electric VTOL and STOL aircraft technology that can provide increased flying range and payload capacity without consuming additional energy.

On tiltrotor and tilt-wing eVTOL aircraft, **PropWings™** transitions with the propeller from vertical helicopter mode to horizontal flight mode, to capture propeller slipstream energy and generate enhanced lift and thrust.

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PropWings™ Value Proposition

PropWings™ provides an innovative, cost-effective solution to significantly amplify lift in eVTOL and eSTOL aircraft through propeller slipstream technology, leading to increased range, payload, efficiency, and safety.

- **More lift means less energy is needed:**
  Reduced energy consumption is crucial to extend flight range and improve operational efficiency, and directly impacts the commercial viability of electric flight.
- **More lift contributes significantly to safer flight:**
  Quicker, smoother, more stable transitions between vertical and forward flight, greater maneuverability, extended stall margins, and steeper climb rates.
- **More lift can revolutionize Electric Aviation**:
  PropWings offers substantial performance gains with minimal weight, complexity, or cost. The technology is adaptable to most eVTOL airframes, with the potential to revolutionize current and future electric aircraft.

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Company Status

- **Flight Kinetics, Inc.** aims to commercialize the **PropWings™** technology through strategic partnering and licensing arrangements.
- The company has US and International patents pending and is validating the technology via industry expert review – the universal feedback is that the PropWings technology, which is based on proven aerodynamic principles, could have widespread adoption if it performs as expected.
- The company plans to engage with industry specialists to perform CFD modeling to validate the concept and identify optimization opportunities. Following this, wind tunnel testing of prototype designs will be performed.
- Once these validation steps are completed, Flight Kinetics, Inc. will enter into licensing agreements with key industry OEMs who will further develop and commercialize the technology.
- Flight Kinetics, Inc. expects to earn long-term streams of recurring revenue through royalty payments from licensees worldwide.

Team

The team behind PropWings™

Management/Sales: Lester Erlston, CEO

- 40+ years in management, sales, marketing, and manufacturing.
- 8 issued patents.

Aerodynamics: Professor Robert Breidenthal

- Professor of Aeronautics & Astronautics, University of Washington.
- Research interests in Turbulence and Fluid Mechanics.

Business Strategy: Ken Vaughn

- 40+ years in engineering, product development, and management.
- Pioneer in impact investing in the cleantech sector.

IP and Licensing: Mark Hubert

- Seasoned IP attorney, 20 years patent prosecution and litigation.
- Gained experience through 20 years hands-on engineering.