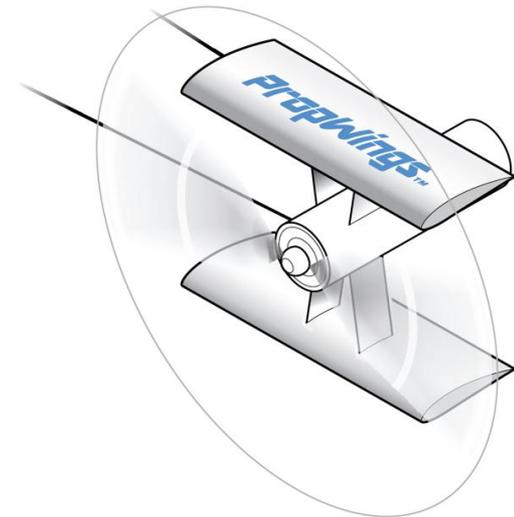
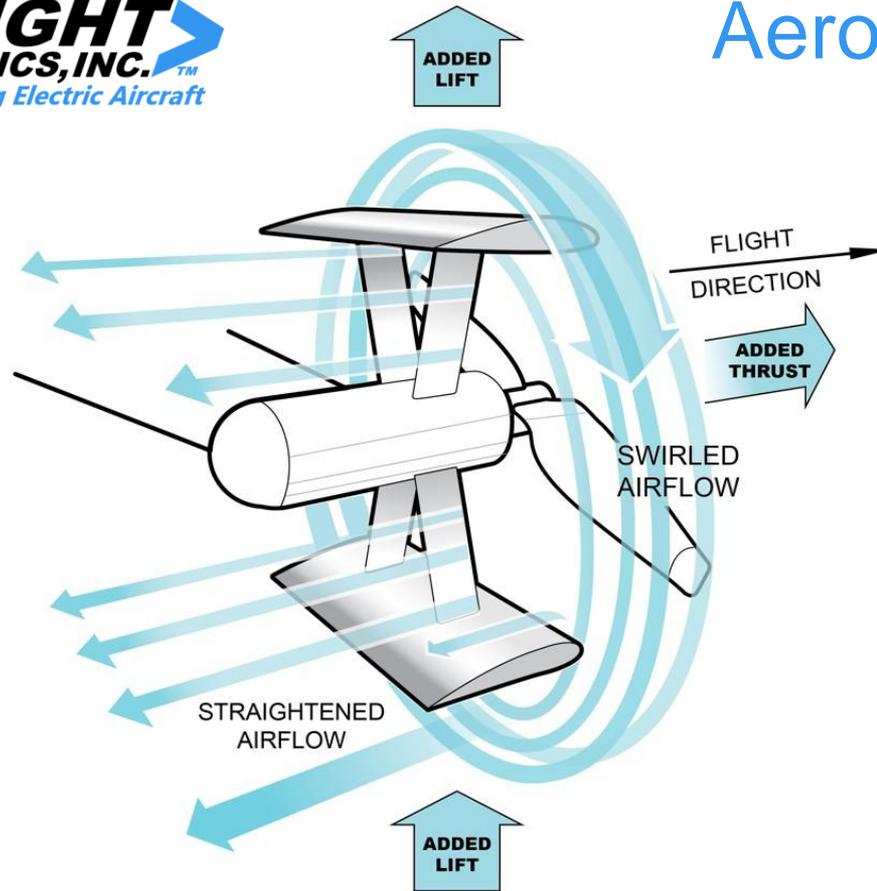


Unlocking the Blown-Lift Advantage

Expanding eVTOL Capability through Slipstream Recovery



- **The Opportunity:** A patent-pending aerodynamic technology designed capture the energy normally lost in the propeller slipstream.
- **The Impact:** Overcoming battery limitations with a projected 10% to 15% increase in flight range or payload capacity.



Putting Propeller Slipstream to Work

From Parasitic Loss to Propulsive Lift

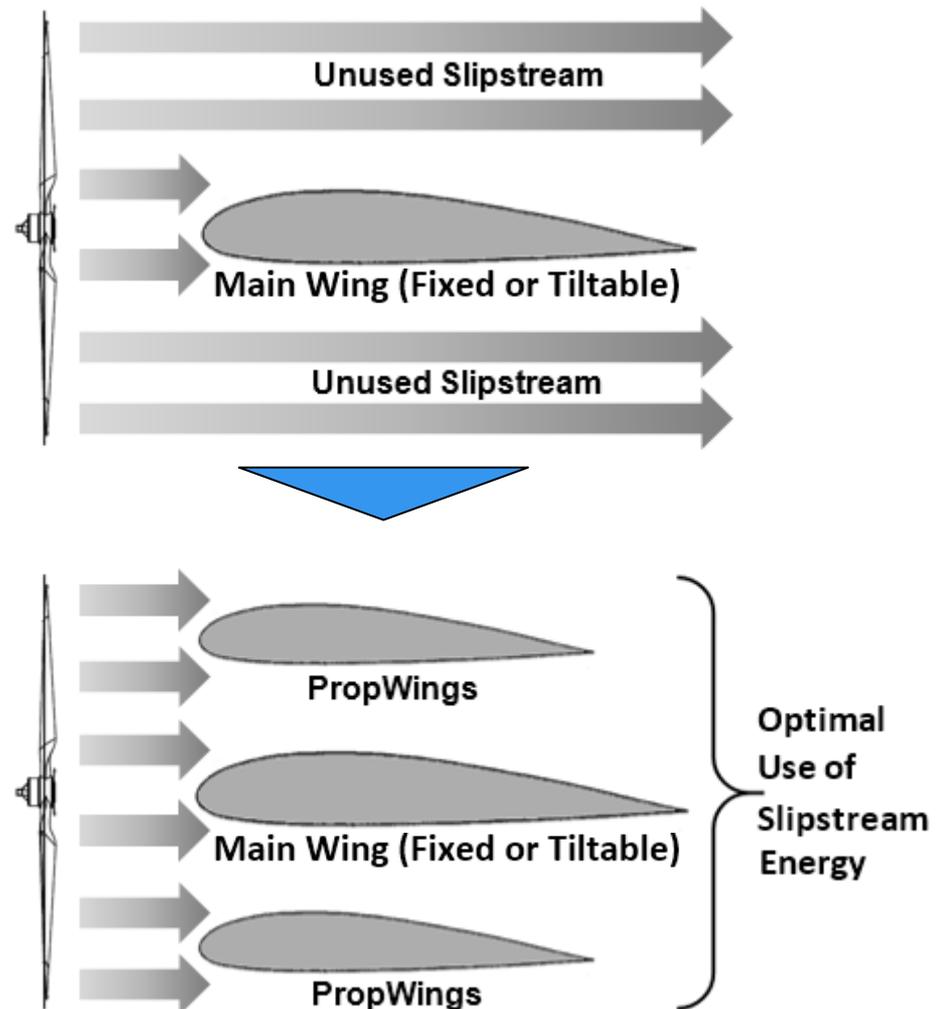
- **Energy Recovery:** Converts the high-energy airflow that is conventionally lost as turbulence into increased lift and thrust.
- **Blown Propulsive Lift:** Captures high-velocity propeller slipstream energy to generate lift even at zero aircraft speed.
- **Swirl Recovery:** Integrated Vanes straighten helical flow, converting wasted rotational energy into direct forward thrust.

How PropWings™ Works

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 extra lift.
- PropWings™ lengthens the main wing's effective wingspan, reducing induced drag to improve energy efficiency during cruise flight.





Real-World Performance Gains

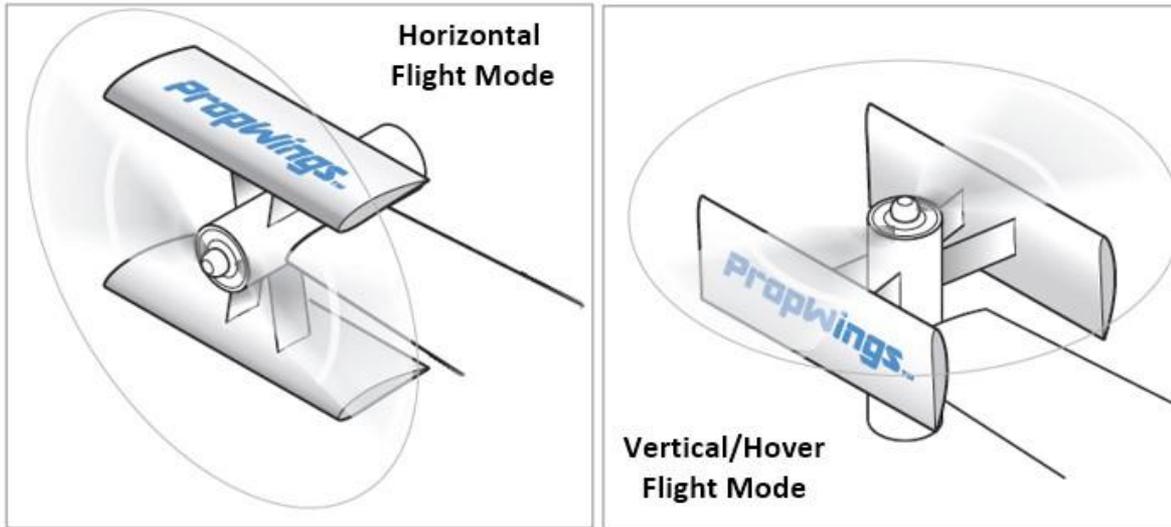
Unlocking New
Routes and Missions

- **Accelerating Viability:** 10%–15% efficiency boost makes marginal regional routes (50–100 miles) commercially viable **sooner than battery development alone allows.**
- **Urban Accessibility:** High lift at slow speeds allows steeper, shorter takeoff & landing profiles.
- **Global IP:** U.S. and International patents pending in key aviation markets.

Superior Flight Dynamics Harnessing the Fastest Airstream

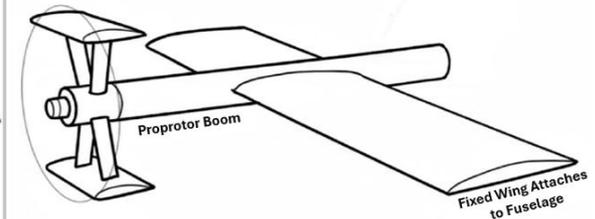


- **Immediate Lift & Climb:** PropWings™ is located in the fastest airstream zone of the aircraft, generating substantial lift and control authority even at zero forward airspeed.
- **Transition Handover:** Eliminates the conventional aerodynamic "dead zone" for a smoother, stabilized transition between vertical and forward flight.
- **Steeper Climb Gradients:** Faster low speed lift enables higher-angle takeoffs, reducing noise footprint and increasing STOLport accessibility.



**Simple Design,
Lower Costs**

Low Complexity,
High Durability



- **Mechanical Simplicity:** No moving parts, less wear & maintenance, simplified certification.
- **Less Strain on Motors & Battery:** Lower power demand reduces heat buildup, less powertrain stress, addressing cycle-life concerns.
- **Structural Integration:** Designed to integrate with motor nacelles and booms using standard aerospace carbon-fiber manufacturing processes.
- **Airframe Neutral:** Adaptable to most eVTOL tilt-rotor, lift-plus-cruise, or fixed-wing STOL designs.

Better ROI on Every Flight

More Revenue Per Kilowatt-Hour

- **Immediate ROI:** A projected 10%–15% efficiency gain converts wasted energy into range, lowering the total cost per seat-mile.
- **Higher Gross Take-Off Weight:** Allows for additional passengers or cargo without increasing battery weight.
- **Future-Proofing:** Provides a performance gain that would otherwise take years of battery development to achieve.

Table: Impact on Payload and Revenue - Hypothetical 4-passenger eVTOL Aircraft

Metric	Standard eVTOL	PropWings™ Equipped	The Difference
Lift Capacity	3,000 lbs.	3,300 – 3,450 lbs.	+300 to 450 lbs.
Typical Payload	4 Passengers	5 Passengers	+1 Passenger
Mission Range	60 Miles	66 – 70 Miles	+10% to 15% Range
Revenue / Flight	\$1,000	\$1,250	+25% Profit Potential
Battery Weight	1,200 lbs.	1,200 lbs.	Zero Weight Penalty

Performance Benchmarks

How PropWings™ Changes the Flight Envelope

Metric	Standard eVTOL	PropWings™ Equipped
Lift Source	Forward Airspeed Only	Propeller Air + Airspeed
Payload / Range	Baseline	+10% to 15% Increase
Low-Speed Control	Limited	Full Control Authority
Maintenance	High Stress/Heat Buildup	Reduced Wear & Tear
Energy Use	Wasted Turbulence	Energy Recovery

Safer Transitions & Landings

Stability Where Pilots Need It Most



- **Immediate Response:** Blown surfaces provide control authority even at zero airspeed.
- **Smoother Transitions:** Provides a stable bridge of lift during transition to forward flight.
- **Safety Buffer:** Higher efficiency means longer loiter times for weather and emergencies.
- **Emergency Glide:** Extra wing surface area decreases sink rates in the event of power loss.

Partner with PropWings™

Practical Innovation for the Next Generation of Flight



- **The Advantage:** Projected 10%–15% performance increase through proven aero principles.
- **Goal:** Seeking strategic OEM partners to integrate PropWings™ into future or current aircraft.
- **Contact:** Lester Erlston / FlightKinetics@usa.com / USA 503-453-5316