

METROAIR

The drone designed to fly in the city. Take off like a helicopter, fly like an airplane.



metroair.kr Wilmington, DE   

Highlights

- 1 One aerodynamic platform — from FPV racing drones to future urban air mobility
- 2 DARPA and US Army already noticed our tech
- 3 Global traction with US market entry underway - Exhibited in US, France, and Germany.
- 4 KAIST Ph.D founder with 35+ years in aerospace Patents filed in Korea, US & China.

Team



Hak Yoon Kim (Hagyoon Kim) Kim Chief Executive Officer (CEO)

metroair.kr 



Shayant Nandi Chief Technology Officer (CTO)





Jisu Kim Chief Commercial Officer 

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Pitch Deck



Memo

The drone designed to fly in the city. Take off like a helicopter, fly like an airplane.

Hover. Cruise. Without compromise.



- U.S.-patented integrated urban air system
- Built and flown — not a concept
- Multicruiser FPV launching 2026
- Korean aerospace manufacturing partner
- \$298.9B drone market by 2030

To fly through a city, propellers can't be exposed

But what if a guarded drone could outperform every other one out there?


THE QUESTION 2/31

Propellers can't be *exposed.*

Not in a city.

But what if a guarded drone could outperform every other one?

That's the question we refused to stop asking.

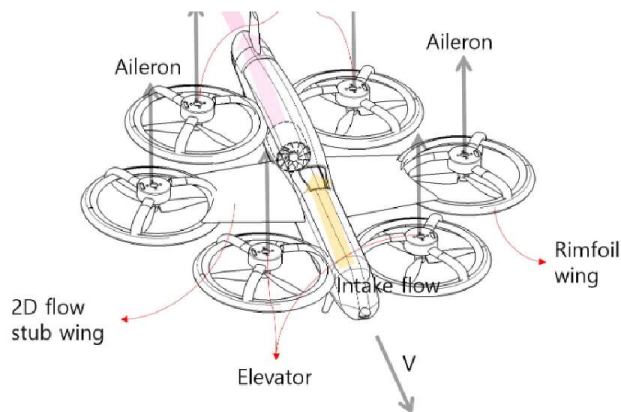
For decades, the rule in aviation was simple: you could have safety, or you could have performance — but you couldn't have both. Open-rotor drones were fast and efficient, but a single bird, branch, or careless hand could end the flight (or worse). The moment engineers wrapped a duct around a propeller, lift dropped, drag rose, and performance collapsed.

We didn't accept that trade-off. We rebuilt the aircraft around it.

Introducing the Multicruiser

The Metroair Multicruiser is a new class of aircraft. It is **fully guarded**, so it can fly safely around people, infrastructure, and other aircraft. And it is **aerodynamically superior** to the open-rotor drones it competes with — not in spite of its ducts, but because of how we designed them.





It hovers like a multicopter. It cruises like a fixed-wing. It transitions between the two without sacrificing efficiency, range, or stability. The result is an aircraft that finally does what every drone, eVTOL, and air taxi designer has been promising for the past decade: **vertical takeoff, sustained forward flight, and the ability to operate where people actually live.**

This is not a concept. It is a flying, performance-validated platform — and the architecture behind it is protected by U.S. patents we have already secured

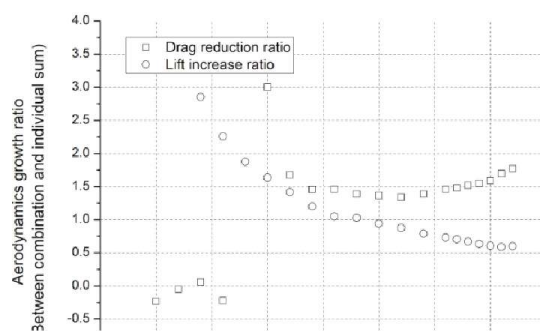
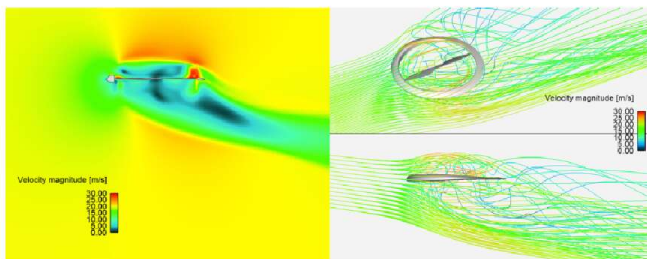
The Technology Behind It: Rimfoil and the Aerodynamic Interaction Effect

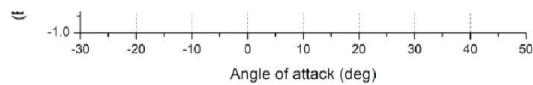
Aerodynamic interaction has been studied for almost as long as aviation itself. In recent years, it has regained attention as distributed electric propulsion has become one of the key enabling technologies for eVTOL aircraft. The Multicruiser is built on a discovery that took decades to develop — and that no competitor has yet replicated.

MetroAir's founder, Hak Yoon Kim, first encountered the phenomenon in 1999, during wind tunnel experiments on a compound gyroplane model. During smoke-flow visualization tests, he observed that airflow passing beneath an autorotating rotor was periodically distorted by the rotating blades — and that this distorted flow interacted with the circulation around a wing located beneath the rotor, producing unusually favorable aerodynamic characteristics. It was an early signal of something deeper.

Years later, during doctoral research at KAIST on high-speed autorotation, Kim studied one of the fundamental limitations of rotorcraft: the chronic aerodynamic imbalance between advancing and retreating blades. The Rimfoil concept was born from this long accumulation of experience, experimentation, and computational analysis — a career spent learning how rotors and wings talk to each other.

Through collaborative CFD research, MetroAir confirmed the aerodynamic interaction occurring between propeller tips and an airfoil-shaped propeller rim. That interaction was then validated through sub-scale prototype flight testing using real hardware. The Multicruiser applies this phenomenon at the platform level.



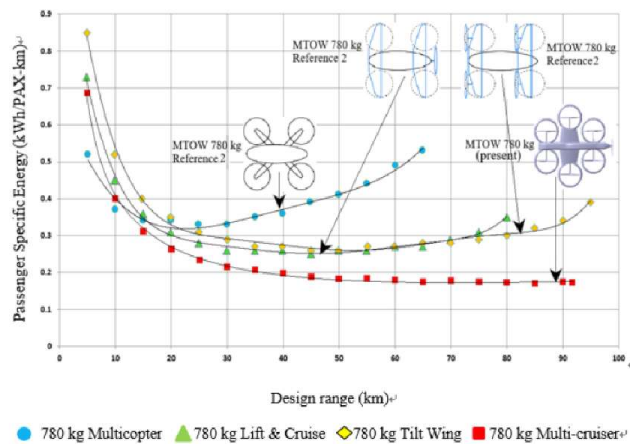


The Multicruiser's design is built around a hexa distributed electric propulsion architecture. Its six Rimfoil propellers are arranged in a precise hexagonal configuration — one of nature's most efficient structural forms, offering symmetry, balance, and packaging efficiency in a single geometry.

The center of gravity and control characteristics of the hexagonal layout are integrated with the Rimfoils and central stub wings to form a three-surface aircraft configuration. By adding a dedicated forward-thrust system to the six lift propellers, the Multicruiser combines the advantages of a multicopter with those of a lift-and-cruise aircraft — without the mechanical complexity of a tilt-rotor or transition phase.

The result is a platform where multicopter and fixed-wing flight controls are unified in a single architecture. The Multicruiser is designed to fly efficiently and dynamically across different flight conditions without requiring a transition phase between hover and cruise.

Flight testing has further confirmed that when the six lift propellers are used as aerodynamic control surfaces — the way a fixed-wing aircraft uses its ailerons and elevators — the aerodynamic interaction effect is amplified further. This gives the Multicruiser a distinctive flight character that conventional drone and eVTOL architectures cannot easily replicate.



Rimfoil technology points toward a new direction for Advanced Air Mobility. Not an incremental improvement on existing designs — but a different aerodynamic foundation entirely.

The Bigger Picture: A Complete System for Urban Air Transportation

Most aviation startups build one product and call it a company. We patented something bigger.

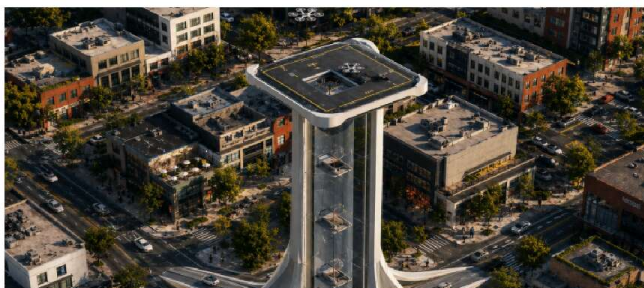
Our U.S. patent covers an integrated three-part urban air system:

The Aircraft. *We build this.* Guarded, hybrid hover-and-cruise drones and eVTOLs purpose-built for the urban environment.

The Vertiport. *Built through partnership with engineering and infrastructure firms.* Modular, low-footprint takeoff-and-landing structures.

The Modular Car. *Built through partnership with the auto industry.* Autonomous ground vehicles that connect directly with the aircraft.

This is a transportation platform — protected as one body of intellectual property in the United States, realized through the partners who join us.





Want to go deeper? Download our full technical white paper — covering Rimfoil aerodynamics, system architecture, and performance modeling. → [Request the White Paper](#)

The Long Road, and How We Fund It

A system this ambitious cannot be built in isolation. Vertiports require coordination with U.S. municipalities, state aviation authorities, and federal infrastructure planners. Modular ground vehicles require partnership with automotive manufacturers. Certified urban eVTOLs require multi-year regulatory engagement with the FAA — and, for global deployment, with EASA and other international counterparts. These are not problems you solve in a single funding round. They are problems you solve in a decade.

We are pursuing every one of them. But we are not waiting for any of them.

To fund the long-horizon vision while building real revenue today, we did what too few aviation companies do: **we made our core technology commercially viable from day one.** The same guarded hybrid platform that will one day carry passengers between rooftops in Seoul and Los Angeles is, right now, the foundation of our first commercial product.

That product is the Multicruiser FPV.

Multicruiser FPV: Our First Commercial Product



FPV (First-Person View) drone pilots are some of the most demanding aircraft operators in the world. They fly faster, harder, and closer to obstacles than nearly anyone else in the drone industry. They have spent the last decade asking for aircraft that go further, fly faster, and survive contact with the world — and the answer they've been given, over and over, is the same exposed-rotor quadcopter design from 2014.



METROAIR FPV DRONE

	AIRFRAME SIZE (DIAGONAL TO DIAGONAL MOTOR CENTER)	262mm
	MTOW	600g+
	PROPELLER	3.5 INCH DIAMETER, 2 INCH PITCH
	LIFTING MOTOR	F1404 KV3800/KV4600
	PUSHER MOTOR (AKA EDF FAN)	1413-KV5000 (43mm)
	DUAL STACK 4-IN-1 ESC/	



The Multicruiser FPV is the first real answer.

Because it inherits the hybrid hover-and-cruise architecture of our broader platform, it is **faster in forward flight** than the quadcopter FPVs it competes with. Because it is **guarded**, it is **dramatically safer** in close-quarters environments — pilots can fly closer to subjects, performers, athletes, and crowds without putting anyone at risk. And because the airframe was designed for efficiency from the ground up, it offers **longer flight time** and **more usable performance** per battery than legacy designs.

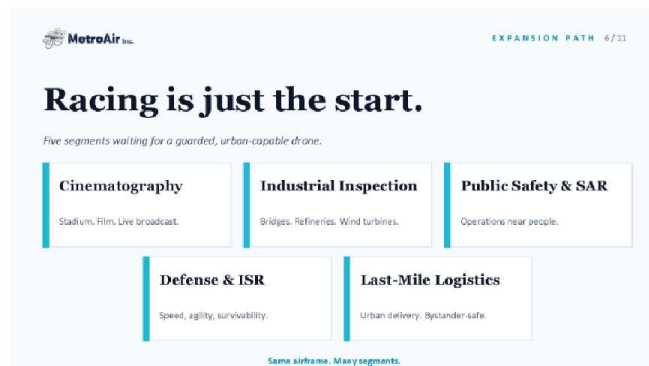


For racers and freestyle pilots, this is a generational upgrade.

But racing is only where we start.

Beyond Racing: Where the Multicruiser FPV Goes Next

Every industry that needs a fast, agile, guarded drone has been waiting for someone to actually build one. The list is long, and it is growing:



Cinematography and **live sports broadcasting** — chase shots, follow shots, and stadium coverage where exposed rotors have always been a liability. **Industrial inspection** — bridges, power lines, refineries, wind turbines, where guarded safety isn't a luxury but a regulatory requirement. **Public safety and search-and-rescue** — operations near survivors, first responders, and unstable structures. **Defense and ISR** — speed, agility, and survivability in environments where the next generation of drone warfare is already being fought. **Last-mile logistics** — urban delivery missions that demand both speed and safe operation around bystanders.

Every one of these segments is growing. Every one of them has been waiting for an aircraft that no longer forces a choice between performance and safety. And every one of them runs on the same airframe we are shipping to FPV pilots first.

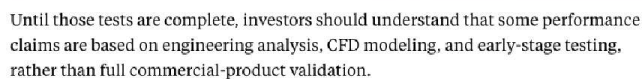
Where We Are Today

MetroAir is currently transitioning from invention and prototype development into flight validation and commercialization.

Our Multicruiser FPV test platform has been built, and initial flight testing has begun. While full third-party-validated performance metrics are not yet complete, we have

We believe this is a **key value inflection point** for the company: the invention has been made, the prototype is flying, and the next step is to convert our technical foundation into objective flight data and market-ready products.

Our current FPV test platform has entered initial flight testing. As testing progresses, we plan to update investors with objective flight data, validated according to the plan below:



The **commercial drone** segment is projected at **-\$54.6B**. **Drone data and AI analytics**, an area where our platform's flight stability and endurance create real differentiation, is projected at **-\$50B**. **Logistics drones**, a natural fit for our guarded urban airspace, will reach **-\$16.2B**. The **FPV segment** — our beachhead — sits at **-\$5B** and **growing rapidly** as new use cases extend it well beyond racing. And **UAM** itself, while still early, is forecast at **-\$22.5B by 2030** and **accelerating sharply** through the 2030s.



To be clear about scope: the figures above describe the broader drone and air-mobility category, not MetroAir's near-term addressable market. Our path to revenue follows a staged structure — a beachhead market we can win first, an expansion market within 2–3 years, and a long-term market that reflects our full platform vision:

MARKET STAGE	MEANING	METROAIR FOCUS
Beachhead Market	Where we earn revenue first	FPV drone; pricing, customers, channel; 2026 launch
Expansion Market	Growth within 2–3 years	Industrial inspection, public safety, defense ISR
Long-term Market	Long-term platform vision	Logistics, UAM, Vertiport, modular transportation

Our beachhead is the FPV segment — approximately \$5B and growing rapidly — where we already have a product, a customer base, and a 2026 launch date. The commercial drone, logistics, and UAM figures above represent where the platform expands once that beachhead is established, not the market we are asking investors to underwrite today.

We are not betting on one slice. The Metroair platform was architected to serve the cross-section — starting with FPV today, scaling into commercial and inspection drones over the next two years, and ultimately delivering urban air mobility at scale by the end of this decade.

Why Metroair, Why Now

The United States built modern aviation. Boeing, Lockheed, Bell — every company that defined the last century of flight was an American company, built by Americans betting on Americans. We believe the next century of flight, the urban one, will be defined the same way.

 MetroAir Inc.

WHY USA, WHY NOW 8/21

America built modern aviation.

It will build the next century, too.

Joby. Archer. Vertical Aerospace. Metroair.

U.S.

Patented

DE

C-Corp

USA

First Market

Korean operating partner — manufacturing depth few American startups can match.

Metroair is a Delaware C-Corp. Our guarded hybrid airframe is U.S.-patented. Our integrated UAM system — aircraft, vertiport, and modular car — is patented in the United States as one body of work. Our engineering team — led by a KAIST PhD founder with 35+ years in aerospace — has built and flown the platform. Our first commercial product is ready for market. And our long-term vision is one of the few in this industry that treats urban air transportation as a complete system, not a single product.

Our Korean operating partner gives us manufacturing depth and aerospace engineering scale few American drone startups can match. But the IP we own, the certifications we are pursuing, and the customers we will serve first are American.

This round will fund Multicruiser FPV production, accelerate commercial-segment certification with the FAA, and deepen the partnerships that unlock the next phase of our platform.

Use of Proceeds

This round will help Metroair transition from an R&D-focused startup into a commercial aviation technology company — building dual-use air mobility platforms for both civilian and defense markets.

 MetroAir Inc.

AGENTIC AI FOR EVTOL

Autonomous. Intelligent. Mission-Ready.

Our eVTOL uses Agentic AI to perceive, plan, decide, and act — all on-board.

From takeoff to mission execution, every decision is made in real time.

ONBOARD SENSORS

- EO/IR Camera
- LIDAR
- Radar
- GPS / INS
- RTK
- IMU

ONBOARD COMPUTE

- Autonomous Mission Planning
- Low Power Architecture
- Secure & Isolated

AGENTIC AI STACK (ONBOARD)

- Perception & Sensor Fusion (underlaid by autonomy)
- Situation Understanding (threat, friend, unknown)
- Mission Planning (plan-optimal action)
- Threat Detection (lookdown and detect)
- Action Execution (control, logs, and report)

AGENTIC LOOP

Observe → Learn → Plan → Decide → Act

Observe: Gather data

Learn: Prioritize

Plan: Optimize

Decide: Choose action

Act: Execute action



FPV Commercialization & Production (~40%)

The largest share goes toward bringing the Multicruiser FPV to market: building the team, establishing pilot production, acquiring testing equipment, and standing up manufacturing infrastructure. This funds our first commercial product launch and the near-term revenue that comes with it.

Dual-Use Multicruiser Development (~32%)

The next portion builds engineering teams to advance the core Multicruiser architecture — the scalable foundation for future defense, special-mission UAV, and eVTOL applications.

Strengthening the Company (~28%)

The remainder supports intellectual property development, marketing and investor relations, business development, legal and financial infrastructure, operational systems, and contingency reserves.

Over the next 12 months, we aim to launch initial FPV commercialization, establish a pilot production line, validate the dual-use Multicruiser architecture, expand our IP portfolio, and deepen our market presence in both the United States and Korea — positioning Metroair for a future Series A and the strategic opportunities that follow.

Join Us

The next era of mobility will not be defined by the companies that built the last one. It will be defined by those willing to rethink the aircraft, the infrastructure, and the system all at once.

That is what we are building.

THE TEAM 9/21

The team.

Founders combining U.S. capital markets with Korean aerospace depth.



Hak Yoon Kim
CEO & Founder
Inventor on U.S. Patent 12,151,630. Decades of cross-industry engineering leadership.



Shayant Nandi
CTO
Engineering & R&D. Drone systems and embedded hardware.



Jisu
CCO
Commercial, capital markets, and partnerships across U.S. and Korea.

What's missing is you.

Welcome to Metroair.

 **Technical Due Diligence** For accredited investors seeking detailed technical documentation, request our White Paper: → [Download White Paper \(Request Form\)](#)

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