

Near Earth Autonomy and Partners Achieve Key Development Milestone for Uncrewed Logistics Black Hawk

Pittsburgh, PA - August 1st, 2025 / Near Earth Autonomy (Near Earth), together with its partners Honeywell, MOOG/Genesys, and XP Services, hosted Department of Defense stakeholders to unveil the latest development milestone of the RUC-60: an Optionally Crewed Black Hawk designed for contested logistics. The RUC-60 (Responsive Uncrewed Capability) is a fully integrated logistics aircraft, converted from the Army's inventory of retiring UH-60L Black Hawks. A RUC helicopter is equipped with Near Earth's *Captain Architecture*, a safety-critical autonomy system designed for accreditation under existing aerospace standards.

At the event, the team showcased an automated Black Hawk performing a fully automated flight, from takeoff to landing. Near Earth presented plans for designing and accrediting its autonomy architecture for RUC-60s and extending it across different aircraft through additional RUC autonomy retrofit kits. The demonstration also highlighted advancements in flight computing, perception sensors, flight control systems, and the roadmap toward product maturity.



Automated Landing with UH-60

Military logistics is evolving to meet the contested logistics demands of a new battlefield. In a modern battlespace, the military must operate while avoiding force concentration. Autonomous aircraft will provide a key capability in future distributed operations. "Recognizing that large-scale combat within the context of a contested logistics environment places a premium on the ability to robustly sustain forces over extended time and distance, modernizing sustainment capabilities is non-negotiable," stated Maj. Gen.

Simerly, Col. Callis, and Maj. Legault in their [February 2024 article](#). "Commanders will likely take much greater risks with machines than they otherwise would with Soldiers' lives."

This doctrinal shift demands a logistics chain that is both distributed and resilient. Traditional sustainment methods using crewed aircraft face limitations in operational tempo and are vulnerable to threats along their routes, hindering critical resupply missions. Most uncrewed alternatives either lack sufficient cargo capacity or are more than a decade from operational deployment.



[Click to View Video: Automated Takeoff & Landing with UH-60](#)

"Near Earth is leading the integration of autonomy into the next generation of military operations," said Lyle Chamberlain, Chief Technology Officer at Near Earth. "Once you remove the pilot, you have to re-evaluate the entire operation, everything from how the aircraft gets out of the hangar to how it navigates and makes mission-critical decisions in flight. Autonomy isn't just about flight control; it has to take on the role of the crew, including responsibilities we often take for granted. That's why we built the *Captain* Autonomy architecture from the ground up to support end-to-end operations and meet the rigorous accreditation standards needed for real-world deployment."



Near Earth's Autonomous Blackhawk Contested Logistics Solution

At the meeting, hosted by XP Services at its Tullahoma, TN, facility, Near Earth gathered with its commercial partners and the U.S. Army for the Prototype Systems Functional Review (PSFR) to define the functional requirements for the next phase of uncrewed vertical lift capabilities.

"It was a highlight having an Army experimental pilot experience the progress on the flight control system, including the latest development version of the automated takeoff and landing. We are working with our partners to tightly define the exact capabilities needed for Near Earth's *Captain* autonomy to take on the full responsibilities of a human pilot," said Samuel Dinnar, Chief Strategy Officer at Near Earth. "This includes every operational procedure, from coming up cold on a flight line to finishing the mission and shutting down."



Automated Flight of UH-60 from Takeoff to Landing

Near Earth began working toward an uncrewed Black Hawk in 2021, building on its aerial autonomy track record, which today includes 10,000+ flights across 140+ airframes (including Airbus, Bell, Boeing, and Kaman). Near Earth is [leading the Marine Corps' Aerial Logistics Connector \(ALC\) Program, upgrading the Leonardo AW 139 into an autonomous logistics system](#) as shown in this [video](#).

The meeting was a major milestone in [Near Earth's \\$15 million contract](#) to develop autonomy kits that retrofit the Army's fleet of UH-60Ls into [RUC-60s — high-tempo, uncrewed delivery workhorses](#) capable of operating around the clock in contested airspace without onboard crew, remote pilots, or continuous data links. The solution delivers scalable logistics and sustainment while significantly reducing risk to Soldiers. RUC autonomy retrofit kits can be extended to additional aircraft for dual-use defense and commercial applications.

At the July 9th meeting, Near Earth demonstrated automated flight with a UH-60, in partnership with Moog and XPS's flight test teams. They completed the flight using Moog's Genesys GRC™ 4000 four-axis autopilot, demonstrating deterministic control without pilot stick input. For the demonstration, features in development were also showcased, including automated takeoff and landing.

"Our partnership with Moog began in 2022, leveraging their high-performance Genesys flight control system on Black Hawk platforms," said Dinnar. "The prototype system we flew together in 2024 is now receiving civilian certification for operations in national airspace. Moog's Genesys avionics delivers exceptional control performance and integrates seamlessly with air traffic management systems, making it ideal for dual-use applications."

"By combining Moog's Genesys Avionics Suite® with Near Earth's *Captain* autonomy architecture, we can accelerate the deployment of advanced uncrewed capabilities while meeting accreditation standards and achieving airworthiness for both defense and certified commercial use cases," said Dinnar.



Near Earth's Pre-Conversion UH-60L - Original configuration in preparation for modular conversion kit

"The UH-60L Black Hawk is a great place to start", said Sanjiv Singh, CEO of Near Earth. "The Army has hundreds headed for retirement over the next few years, and each one can move up to 90,000 pounds of cargo a day. They have the added benefit of existing maintenance infrastructure and spare parts. The Army's been flying them since the late '80s, but as they transition to the MV-75 and UH-60M, we see an opportunity to retrofit these types of trusted workhorses for uncrewed logistics. To support defense needs, we can also extend the same autonomy to larger platforms, like the Chinook or Super Stallion, and take on new missions like casualty evacuation and disaster relief."

Moog supported the event with their Genesys GRC 4000 4-axis autopilot, Genesys Avionics Suite flight deck, and flight-control hardware. "Moog is proud to demonstrate our

innovative design capabilities in autopilots, flight decks, and flight-control hardware to revolutionize how aircraft are flown now and into the future," said Sharmila Durairaj, General Manager, Mission Systems Division.

"Experiencing our autopilot flying the Black Hawk hands-off from takeoff, to hover, to landing confirms it's a game-changing capability for the UH-60 rotorcraft platform," said Nick Bogner, Business Development Director, Military Aircraft Mission Systems. "Moog is excited to collaborate with Near Earth on the RUC program for optionally piloted helicopters applicable to any rotorcraft platform."

Honeywell Aerospace Technologies supported the event with system engineering and certified avionics subject matter experts. "Our avionics provides a modular, certifiable foundation that aligns with both today's operational tempo and tomorrow's autonomy goals," said Matt Milas, President of Defense & Space, Honeywell Aerospace Technologies. "For future autonomous Black Hawks, our systems will meet the evolving military needs with a certifiable foundation."

"Not only is this successful demonstration a major step in creating brand new possibilities for defense, but it also creates a potential pathway for use by other helicopter operators as well," said Bob Buddecke, President of Electronic Solutions, Honeywell Aerospace Technologies. "With Near Earth, we're showing how existing aircraft can be adapted with trusted avionics to support the next generation of defense logistics. Uncrewed aircraft will be vital in keeping service men and women as safe as possible in contested environments, and we are one step closer to realizing that vision."

The flights took place by XP Services' UH-60 modification line in Tullahoma. "The July demo proves we have the right team to provide an autonomous solution that meets the Army's requirement to operate in a contested logistics environment," said Ken Pflieger, Program Manager of XP Services. "The XP Services team has performed hundreds of aircraft conversions since its beginning in 2008. We have the resources to support aircraft RUC-60 kit installations at the rate and standard this Army program will demand."

The retrofit approach offers a rapid, cost-effective path to modernization by breathing new life into surplus UH-60Ls. Uncrewed operations make it possible to deliver critical cargo in GPS- or communications-denied, high-threat zones without exposing aircrews to unnecessary risk. Autonomy enables sustainment when and where it matters most.

An Open Systems Approach (MOSA) enables rapid upgrades, flexible new capability insertion for new missions, fleet-wide scalability, and extension to additional aircraft

models. The system provides a scalable roadmap for efficiently extending autonomy across rotorcraft fleets and directly informs the development of Future Vertical Lift doctrine.

"The sooner we complete this contested logistics solution, the sooner it will be delivering needed supplies to Soldiers and keeping crew safe," said Sanjiv Singh, CEO of Near Earth. "We continue to be on pace to hit all our milestone dates, including demonstrating autonomous missions with a safety pilot onboard in 2026, flying fully autonomous missions with no pilot onboard in 2027, and producing and distributing systems for fielded Army missions in 2029."

About Near Earth Autonomy

Near Earth's technology allows aircraft to autonomously take off, fly, and land safely, with or without GPS. Its solutions enable aerial mobility applications for partners in the commercial and defense sectors. Near Earth bridges the gap between aerospace and robotics with complete systems that improve efficiency, performance, and safety for aircraft ranging from small drones to full-size helicopters. Learn more at nearearth.aero.

About Moog

Moog is a worldwide designer, manufacturer, and systems integrator of high-performance precision motion and fluid controls and control systems. Moog's high-performance systems control military and commercial aircraft, satellites, and space vehicles, launch vehicles, defense systems, missiles, automated industrial machinery, marine and medical equipment. Additional information can be found at www.moog.com.

About Honeywell

Products and services from Honeywell Aerospace Technologies are found on virtually every commercial, defense, and space aircraft, and in many terrestrial systems. The Aerospace Technologies business unit builds aircraft engines, cockpit and cabin electronics, wireless connectivity systems, mechanical components, power systems, and more. Its hardware and software solutions create more fuel-efficient aircraft, more direct and on-time flights, and safer skies and airports.

Honeywell is an integrated operating company serving a broad range of industries and geographies around the world. Its business is aligned with three powerful megatrends –

automation, the future of aviation, and energy transition – underpinned by the Honeywell Accelerator operating system and the Honeywell Forge IoT platform. As a trusted partner, Honeywell helps organizations solve the world's toughest, most complex challenges, providing actionable solutions and innovations across its Aerospace Technologies, Industrial Automation, Building Automation, and Energy and Sustainability Solutions business segments. For more news and information on Honeywell, please visit www.honeywell.com/newsroom.

About XP Services

XP Services is a veteran-owned aviation engineering and integration company specializing in innovative aircraft modification, certification, and flight test support. With a strong foundation in both military and civilian platforms, XP Services delivers tailored solutions that include avionics integration, fly-by-wire/autonomous flight control systems, STC development, and mission system installations. Our in-house team of engineers, A&P/IA technicians, and flight test personnel supports programs from concept through execution, ensuring compliance, performance, and mission success. Headquartered in Tullahoma, Tennessee, XP Services is known for its agility, technical depth, and commitment to delivering results under demanding timelines. Learn more at <https://xp.services.us/>.