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Kanden Engineering Corporation
Aero Asahi Corporation
Kawasaki Heavy Industries, Ltd.

Conclusion of the Agreement on Collaboration for Cargo Transport to Transmission Towers Using the Unmanned Helicopter "K-RACER"

Tokyo, March 13, 2025 – Kawasaki Heavy Industries, Ltd., Kanden Engineering Corporation and Aero Asahi Corporation announced today that they have concluded the "Agreement on Collaboration for Cargo Transport to Transmission Towers Using the Unmanned Helicopter 'K-RACER'". Under the Agreement, the companies will cooperate in examining the commercialization of a cargo transport service for transmission towers that utilizes the unmanned helicopter "K-RACER" developed by Kawasaki. As an initial step, the companies plan to conduct demonstration tests for the cargo transport service and assess technical challenges related to commercialization.



Cargo transport using a manned helicopter*



Cargo transport using "K-RACER" (concept image)

*Photo provided by Aero Asahi

Electricity generated at power plants is delivered through transmission networks to substations in various regions and then distributed to households and businesses. Currently, approximately 240,000 transmission towers are installed across Japan as part of this extensive transmission network.

To ensure stable power transmission, it is essential to regularly replace transmission towers, upgrade equipment, and conduct maintenance. For transmission towers located in mountainous areas, transporting materials and equipment for these operations is currently conducted by using manned helicopters, monorails, cableways, and manually carrying the cargo. However, with the accelerating decline in the working population caused by Japan's aging society and declining birthrate, going forward there will be a growing need to expand alternative transportation methods.

To address this challenge, the three companies will collaborate in studying commercialization of the service, which utilizes "K-RACER" that is capable of transporting up to 200 kg of cargo per flight.

Kawasaki anticipates demand for several dozen of these unmanned helicopters specifically for the transmission tower market being targeted by the service and several hundred unmanned helicopters across the broader market.

<Overview of Each Company's Role >

- Kanden Engineering Corporation :
Construction, maintenance, and inspection of overhead and underground transmission lines
- Aero Asahi Corporation :
Using helicopters for cargo transport for transmission line construction
- Kawasaki Heavy Industries, Ltd. :
Design, manufacturing, and business development of unmanned helicopter “K-RACER”

<Basic Specifications of K-RACER (K-RACER X2)>



- Main rotor diameter: 7m
- Maximum payload: 200 kg
- Drive system: Reciprocating engine
- Fuel type: high-octane gasoline
- Range: 100km or more
- Continuous operation time: 1 hour or more

<Reference Links>

- Unmanned Helicopter K-RACER
<https://global.kawasaki.com/en/groupvision2030/K-RACER.html?wovn=zh-CHT>
- K-RACER-X2, the latest prototype for unmanned VTOL aircraft
<https://www.youtube.com/watch?v=1Gu8Yr3MWck>
- “K-RACER” Demonstrates Automated Cargo Transport without Human Intervention
https://youtu.be/3zRKw4NuR_g

<Related Releases>

- Unmanned Helicopter “K-RACER” Demonstrates Automated Cargo Transport without Human Intervention at “Nankai Rescue 2024”(January 14, 2025)
https://global.kawasaki.com/news_250114-1e.pdf
- K-RACER-X2 Unmanned Helicopter Demonstrates Top Useful Load Capacity of 200kg (January 12, 2024)
https://global.kawasaki.com/en/corp/newsroom/news/detail/?f=20240112_4742