

(Joint Release)

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 Tamagawa Aero Systems Co.,Ltd
 Japan Airlines Co.,Ltd

Introduction of the First Lithium-Ion Battery-Powered Ground Power Unit “eGPU” at Matsuyama Airport by JAL



Tamagawa Aero Systems Co., Ltd. (Headquarters: Ota-ku, Tokyo, President and CEO: Keisuke Nakajima, hereinafter referred to as “TAS”) and Japan Airlines Co., Ltd. (Headquarters: Shinagawa-ku, Tokyo, President and Group CEO: Mitsuko Tottori, hereinafter referred to as “JAL”) introduced the lithium-ion battery-powered ground power unit “eGPU” at Matsuyama Airport on May 9, 2024. This marks JAL’s first use of this technology, which is expected to reduce CO2 emissions and noise pollution.

Aircraft are equipped with an auxiliary power unit (APU), which can independently supply the necessary electricity and air conditioning while parked. However, the APU generates a significant amount of exhaust gases, including carbon dioxide (CO2), and noise. To mitigate environmental impacts at airports and reduce aviation fuel consumption during parking, electric power and air conditioning have been supplied by diesel engine-powered ground power units (GPU).

By introducing the “eGPU,” CO2 emissions will be reduced to zero, and noise levels will be decreased by approximately 30% (below 65db) compared to traditional methods. This is expected to improve the working environment for operators, mitigate noise and environmental issues around airports, and contribute to the preservation of the global environment.



100% decreased

30% decreased

The “eGPU” units, manufactured by ITW GSE, can supply electricity continuously for approximately 14 flights during the turnaround time of a Boeing 737–800 aircraft on a full charge and have been deployed in over 400 units worldwide.

JAL has been exploring the deployment of “eGPU” units at domestic airports as part of its efforts to promote CO2 emission reduction in airport facilities and vehicles, advocated by the Civil Aviation Bureau of the Ministry of Land, Infrastructure, Transport and Tourism. Within the JAL Group, Japan Air Commuter (hereinafter “JAC”) introduced the “eGPU” at seven airports (Tanegashima, Yakushima, Kikaijima, Amami Oshima, Tokunoshima, Okinoerabujima, Yoron) in March 2023, and Hokkaido Air System (hereinafter “HAC”) started operations with the “eGPU” at three airports (Sapporo Okadama, Rishiri, Okushiri) in March 2024.



Converting the power plug used for the snowplow vehicle heater made it possible to install the charging infrastructure.

In considering the expansion of “eGPU” deployment at airports in Japan, the installation of charging infrastructure and securing AC power sources for use with jet aircraft were issues. However, at Matsuyama Airport, this issue was resolved by converting the power plugs used for snowplow vehicle heaters, leading to the introduction of the “eGPU”. This implementation is expected to pave the way for further deployments at other airports, leveraging the knowledge gained from this experience.

JAL and TAS are committed to contributing to global environmental preservation and to continuing efforts towards realizing a more sustainable aviation industry.

【About Japan Airlines】

Japan Airlines (JAL), Japan’s first private aviation company, was established in 1951 and is a member of the oneworld® Alliance. The airline operates a fleet of 227 aircraft (as of March, 2024) and began renewing its international long-haul aircraft with the Airbus A350–1000 starting 2023 Winter Schedule. Together with other JAL Group and partner airlines, JAL offers an extensive domestic and international network that serves 376 airports across 64 countries/regions. The airline has received numerous accolades for its exceptional service, including being recognized as a certified 5–Star Airline by Skytrax and being awarded the prestigious “World Class” Airline title by APEX, the Airline Passenger Experience Association. JAL takes great pride in its on-time performance and is regarded as one of the most punctual airlines globally. The airline is dedicated to ensuring the highest standards of flight safety and overall service quality, striving to be the most preferred airline by customers worldwide. The JAL Group recognizes that action to address climate change is a particularly important issue for the sustainability of society, and in June 2020, the group announced its commitment to achieve net zero carbon emissions by 2050.

For details and to learn more, visit JAL’s official website at <https://www.jal.com/en/>.

【About Tamagawa Aero Systems】

Tamagawa Aero Systems (TAS) firm began in 1952 with the specialized repair of aircraft power equipment. Thanks to our customers, TAS has offered aircraft power equipment repair services to domestic and international airlines, the Japan Self-Defense Agency, and other national agencies, for more than 60 years.

Currently, TAS leverages TAS’s experience by offering customized manufacturing. At the same time, with TAS’s systematic service coverage from inspections to after-service, TAS provides a wide range of products, including those from the related field of foreign aircraft maintenance equipment.

In these times of rising concerns about global environmental problems, we quickly adopt the latest aircraft technologies and offer services to help customers make more effective use of their equipment into the 21st century. As a company trusted by society, TAS aims to become a comprehensive provider of aircraft electronic equipment which meets the needs of today. For details and to learn more, visit TAS’s official website at <https://www.tamagawa-as.jp/en/>.