Agreement between the Ministry of Economy, Trade and Industry of Japan and The Boeing Company on Cooperation in Aircraft Technology

In consideration of the cooperative relationship based on mutual trust built over many years between The Boeing Company and Japan in the aircraft field, the Ministry of Economy, Trade and Industry of Japan (METI) and The Boeing Company (hereafter "the Parties") hereby memorialize their intent to strengthen cooperation in new technology fields in order to increase the competitiveness of The Boeing Company's future airplanes and further the development of Japan's aircraft manufacturing industry.

The Parties agree to promote the following initiatives:

- The Parties will cooperate in the areas such as electric technology, including advanced lightweight batteries and advanced motors and controllers necessary for electric propulsion systems in aircraft; high-rate low-cost composite production technologies; and advances in automation to improve manufacturing productivity.
- The Parties will further pursue technical collaboration in the field of sustainability including Sustainable Aviation Fuel and will investigate the feasibility of electric and hydrogen powertrain technologies in aircraft.
- The Parties will collaborate on research and development efforts regarding future flight concepts that will promote zero climate impact aviation. As part of this effort, the parties will explore the technical feasibility of alternative propulsion aircraft and assess the market impact of integrating such aircraft into larger fleets.
- METI will identify Japanese partners with relevant potential to contribute to
 the development of business in the above areas and will provide them with
 support, including by introducing them to The Boeing Company. In addition,
 METI, pursuing the realization of next generation aircraft utilizing the
 technologies above, will endeavor to provide necessary support including
 for research and development, and market and technology assessment to

facilitate the mutual interests of the Parties, in conformance with applicable legal authority and available resources.

 The Boeing Company, utilizing the Boeing Research & Technology (BR&T) – Japan Research Center, will aspire to strengthened cooperation in the above areas by sharing with METI and with potential partners its strategic vision on the future of air transportation, and by working towards the implementation of applicable technologies.

The Parties will regularly exchange information and hold discussions in order to facilitate the above cooperation. All activities under this agreement will be conducted in compliance with antitrust and competition laws.

This agreement does not give rise to any rights or obligations for either Party, and does not constitute a legally binding agreement.

This agreement shall come into effect from the date of signing and remain valid until December 31, 2027. It may be extended by mutual agreement of the Parties.

The language of this agreement is English. Two copies shall be made and one copy will be kept by each Party.

August 1, 2022

For the Ministry of Economy, Trade and Industry of Japan For The Boeing Company

HAGIUDA Koichi Minister of Economy, Trade and Industry

Greg Hyslop, D.Sc. Chief Engineer