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SEVENTH WORLDWIDE AIR TRANSPORT CONFERENCE (ATCONF/7)

Montréal, HQ, 16 to 20 November 2026

Agenda Item 1: Overview of developments in the field of air transport
1.2: Air transport in ICAO's long term strategic plan: Accelerating aviation towards 2050

JAPAN'S EFFORTS ALIGNED WITH THE NATIONAL AIR NAVIGATION PLAN (CARATS2040)

(Presented by Japan)

EXECUTIVE SUMMARY

Japan established its National Air Navigation Plan (Collaborative Actions for Renovation of Air Traffic Systems / CARATS2040) in June 2025, with 2040 as the target year. In line with CARATS2040, Japan has been implementing various initiatives aimed at achieving sustainable air transportation and other objectives. Japan remains fully committed to actively promoting CARATS2040 and hereby provides an overview of selected initiatives that contribute to both environment protection and cost efficiency.

1. INTRODUCTION

1.1 Japan established CARATS (Collaborative Actions for Renovation of Air Traffic Systems), its national air navigation plan, in 2010 with 2025 as a target year. Since then, Japan has been implementing a wide range of initiatives, including the reorganization of domestic air traffic control airspace, the introduction of data communications, the upgrading of communication, navigation, and surveillance technologies and information systems, as well as operational improvements leveraging these technologies.

1.2 Since the establishment of CARATS, the environment surrounding Japan's air traffic system has undergone significant changes. These include growth in aviation demand, shifts in air users' preferences due to the COVID-19 pandemic, diversification of airspace usage needs, increasing demand for decarbonization, advances in digital technologies, demographic challenges such as a declining birthrate and an aging population, growing instability in the international situation, and the increasing intensity and frequency of natural disasters.

1.3 To respond effectively to these changes in the operating environment, we formulated a new version of CARATS (CARATS2040) in June 2025, with 2040 as the target year (https://www.mlit.go.jp/koku/carats/rdk40188/wp-content/uploads/2026/04/CARATS2040_EN.pdf).

2. DISCUSSION

2.1 CARATS2040 sets out to promote various initiatives aligned with the following six strategic directions.

a) strengthening safety and security measures;

b) realization of trajectory-based operations (TBO) for optimal aircraft operations;

c) realization of sustainable air transport;

d) effective use of airspace that accommodate the diversification of air mobility;

e) strengthening resilience; and

f) strengthening international cooperation and promoting overseas expansion.

2.2 With regard to c) *Realization of sustainable air transport*, we have been working to introduce fuel-efficient flight procedures and improve flight operations based on decarbonization promotion plans. Specifically, we are committed to steadily advancing the various initiatives currently being implemented under CARATS2040, such as increasing flexibility in selecting flight routes with minimal detours and in choosing altitudes and routes for each phase of flight, including en-route operations, departures and arrivals, and airport operations. Furthermore, we are advancing initiatives to enhance the air traffic management system to achieve optimal aircraft operations.

2.3 In addition, to further promote the widespread adoption of decarbonization initiatives among domestic air carriers, we collected case studies of measures currently being implemented by these air carriers. By combining these case studies with initiatives undertaken by Japan Civil Aviation Bureau (JCAB) in its capacity as the air navigation services provider, we developed the “Decarbonization Booklet for Operational Improvements”, which compiles effective measures to reduce CO2 emissions. This booklet introduces representative examples of CO2 reduction measures, organized primarily by flight phase including pre-departure, en-route, and descent. The first edition is available on the CARATS website. Under the CARATS2040 framework, we will progressively update the content as appropriate.

2.4 In parallel, we are committed to promoting research and development and human resource development, both of which are vital foundations for the six initiatives outlined above.

2.5 As part of these initiatives, we organized the “CARATS2040 Promotion Forum” and the “CARATS2040 Challenge Competition” in November 2025. The forum provided a platform for collaboration among industry, academia, and government, featuring keynote speeches by an academic expert and research presentations by research institutes, while also helping raise awareness of the CARATS2040 initiative. The competition invited students to submit ideas for advancing the air navigation sector and present their proposals. At the inaugural forum and competition, Japanese research institutes and other organizations shared research findings related to operational optimization, while students presented ideas for improving operational efficiency. Exchanges with universities, institutes, and other organizations are important for identifying the latest insights, technological trends, and market needs. Accordingly, we will continue to organize these events.

2.6 Through the PDCA cycle under this national plan, we remain committed to strengthening safety and security measures as our highest priority, realizing TBO, promoting sustainable air transport, and enhancing the effective use of airspace and resilience. In this paper, we have outlined several initiatives aligned with CARATS2040 focusing on the strategic direction of “Realization of sustainable air transport”. Some of these initiatives may require advanced systems and operational capabilities. However, more

modest efforts, such as producing a booklet, organizing a forum, and holding a competition, can also play an important role in supporting decarbonization efforts in line with the decarbonization promotion plan, while ultimately contributing to cost savings.

3. CONCLUSION

3.1 The Conference is invited to note the information contained in this paper.

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