

Airway and RNAV Route

Airway-RNAV Route

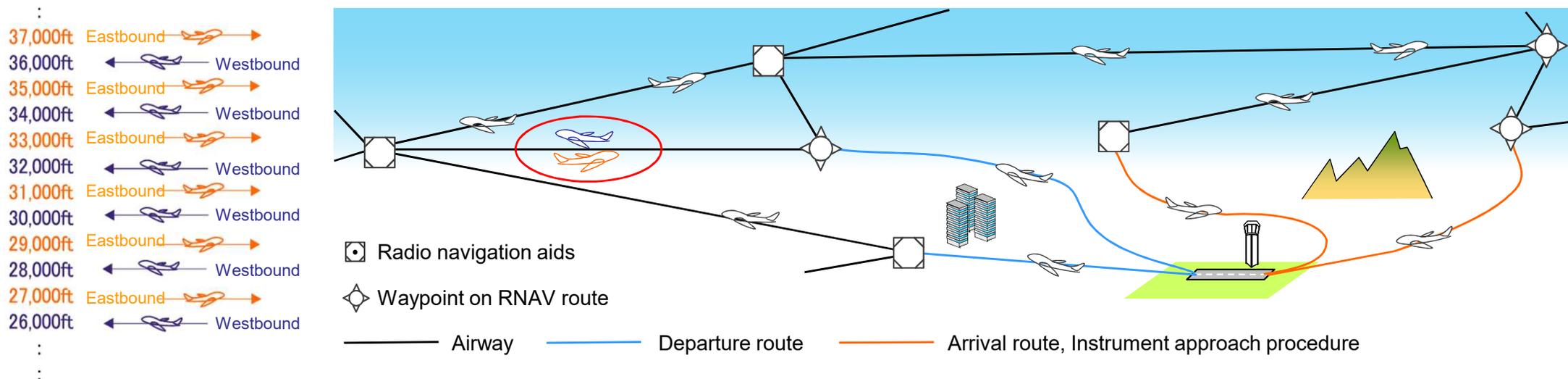
Airways are basically the route connecting radio navigation aids. Aircraft fly at the altitude specified by flight direction (eastbound/westbound) right above the airways guided by the information (distance, direction, etc.) obtained from the radio navigation aids.

RNAV (Area Navigation) is a route for aircraft to carry out RNAV flight. RNAV routes allow more efficient flight by connecting random positions by selecting routes more freely, in addition to shortening the flight distance, than conventional airways.

Departure/Arrival Route, Instrument Approach Procedure

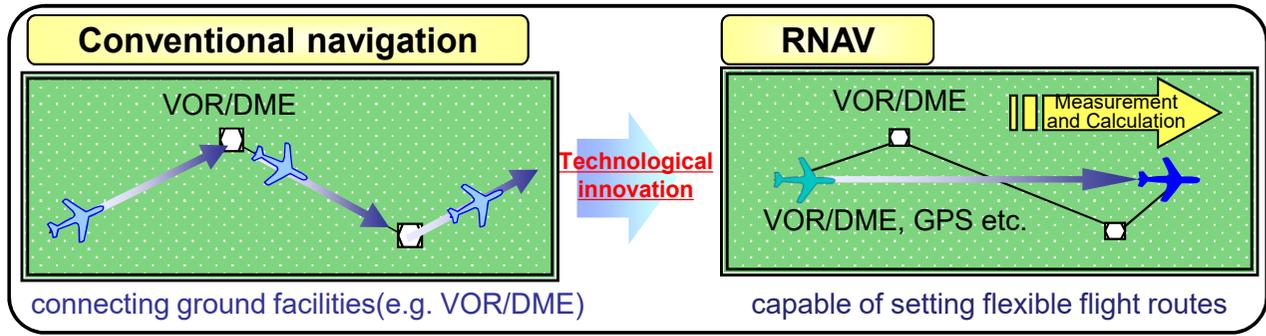
Departure/Arrival routes and instrument approach procedures are designed for take-off and landing by connecting airports and airways/RNAV routes. In general, an airport has several departure/arrival routes and the direction of departure and arrival is determined depending on weather conditions, such as wind direction.

Departure/Arrival routes and instrument approach procedures specify route, turning direction, altitude, etc., in consideration of the geographic features and impact of noise in the vicinity of the airport.



The RNAV (Area Navigation) : A navigation system utilizes the advanced navigation capabilities of modern aircraft made possible by employing high-performance FMS (flight management systems). The system significantly mitigates the physical limitations of flight route setting caused by the location of ground-based radio navigation aids such as VOR/DME.

RNP (required navigation performance) : A navigation system which allows flying out of radar covering area by on-board performance monitoring and warning function.



For Air Traffic ...

Accommodate Increasing Demand for Aviation

Expansion of airspace capacity

Navigational Accuracy NOT specified

 Navigational Accuracy $\pm 5\text{NM}$

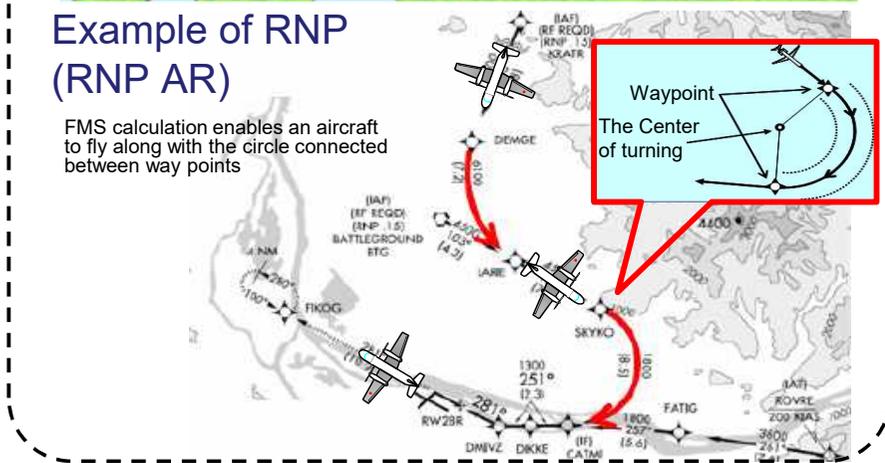
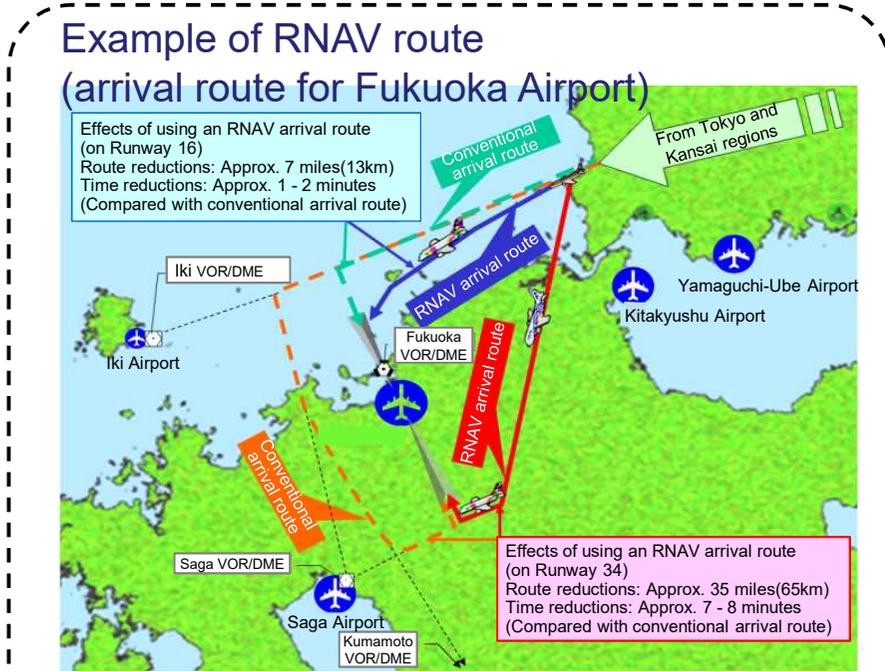
 *Image of double-tracking flight path

For Aircraft ...

Improvement of Operational Efficiency and Serviceability, Alleviation of Environmental Load

Reduction in Flight time and distance

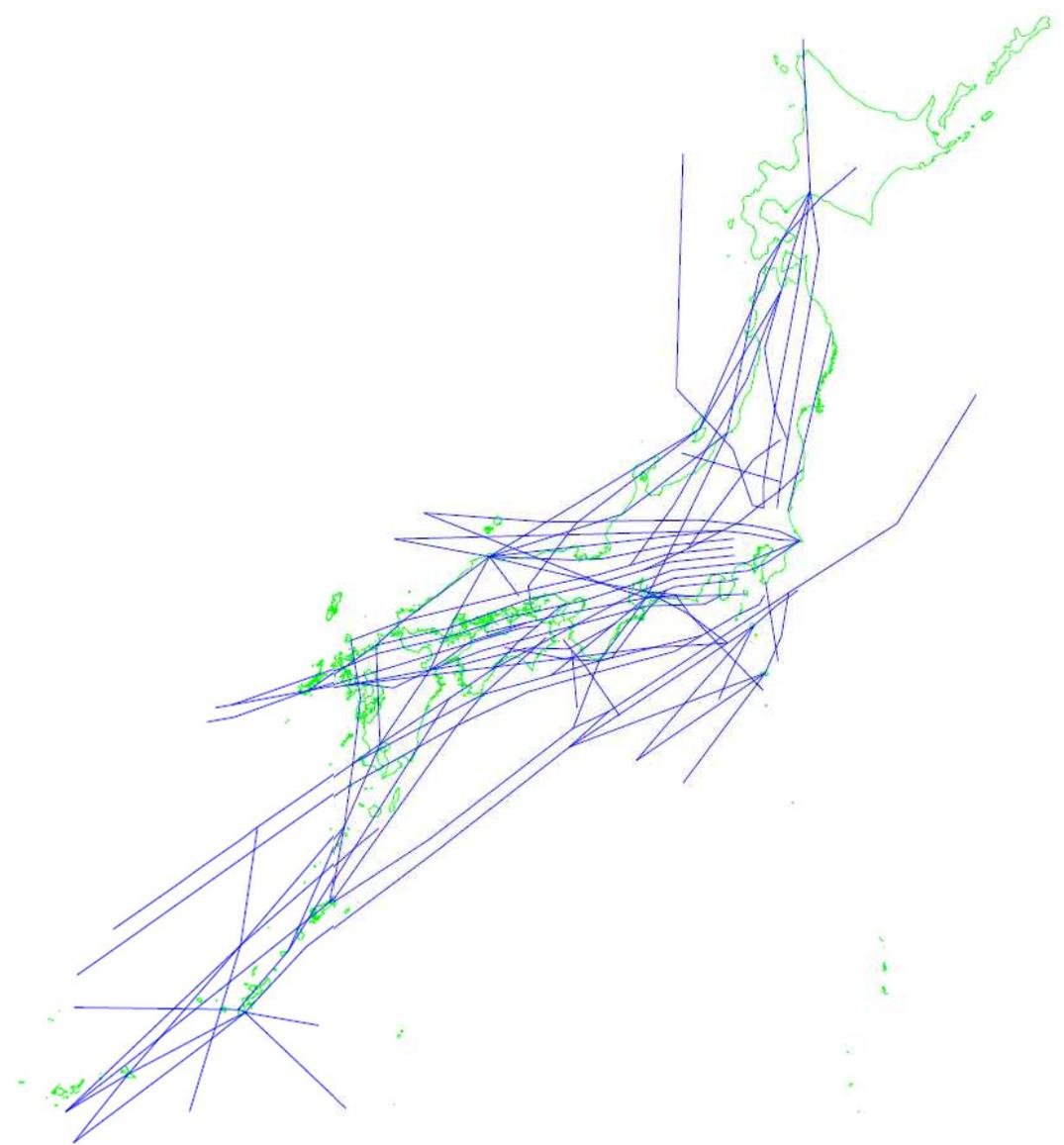
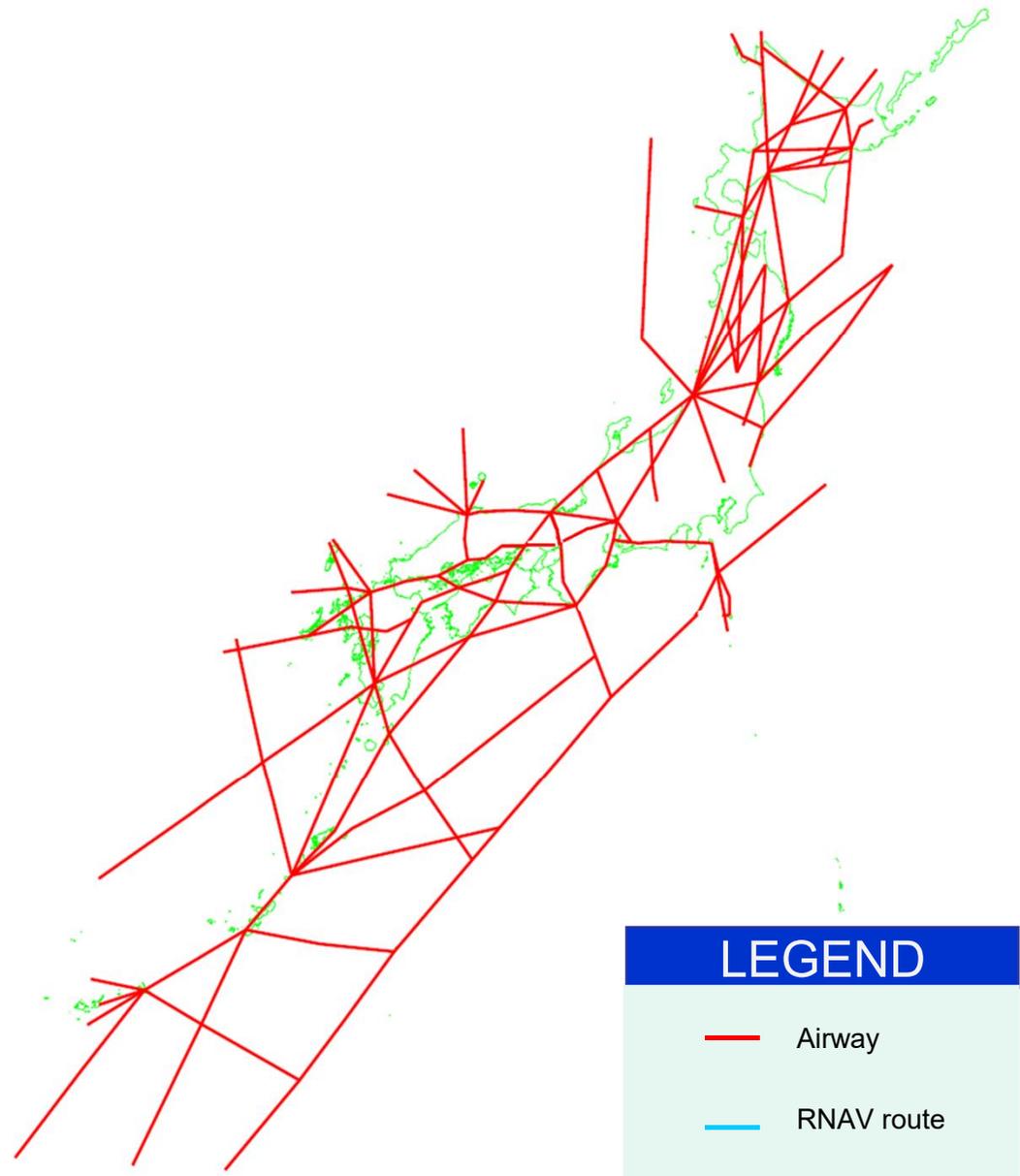
Reduction in Flight cancellation and delay





< Airways >

< major RNAV routes >



As of April 1, 2023