This course aims to enhance the capacity for performance based navigation (PBN) flight procedure design through understanding the related technical standards and technique. PBN enable to set flexible air route (landing and taking off) in using the aircraft equipped with GPS and flight management computer system. It is indispensable for increasing air traffic with safety ensuring in developing countries.

### Objective/Outcome

**Objective**
To acquire enough knowledge and expertise to design air traffic services route and PBN procedure.

**Outcome**
1. To understand quality assurance in flight procedure design of Japan.
2. To understand the standard of flight procedure design.
3. To be able to design the flight procedure.
4. To understand the outline of flight procedure automated design tools.

### Contents

This course mainly consists of practical design exercise of flight procedure.

- **Lecture**
  - Overview of flight procedure design
  - Overview of PBN (Performance based navigation)
  - Quality assurance for flight procedure design
  - Geographic data and obstacle data

- **Exercise**
  - PANS-OPS (Procedures for Air Navigation Service - Air Operation),
  - Survey exercise,
  - Automated design tool for flight procedure design,
  - Site Visit

- **Site Visit**
  - Airport
  - Air Traffic Management Center in Japan

### Target Organization / Group

**Target Organization**
Air Traffic Services Provider or Regulator

**Target Group**
1. Be engaged in flight procedure design. (ex. flight procedure designer, air traffic controller, qualified pilots)
2. Have finished PANS-OPS conventional training course or have equivalent knowledge.

### Implementing Partner

NTT DATA i Corporation

### Remarks and Website

JICA Tokyo (Economy & Env.)