



International Civil Aviation Organization

CNS/MET/SG/6-IP/15

Sixth Meeting of CNS/MET Sub-Group of APANPIRG

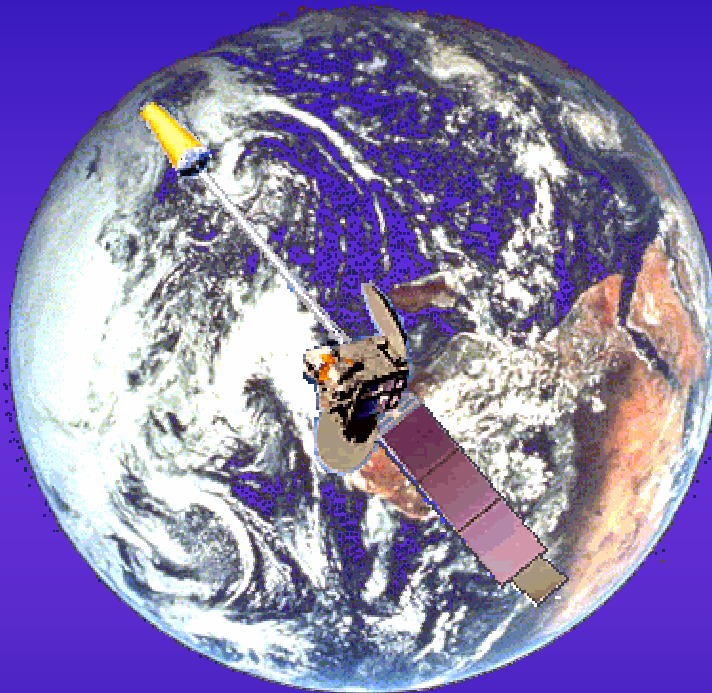
Bangkok, Thailand, 15 – 19 July 2002

Agenda Item 18: Any other business

PROGRESS OF CNS/ATM IMPLEMENTATION IN JAPAN

(Presented by Japan)

Progress of CNS/ATM Implementation in Japan



**Sixth Meeting of CNS/MET Sub-Group of APANPIRG
15-19 July 2002, Bangkok, Thailand**

(Presented by Japan)

Overview

- *Policy and progress of CNS/ATM in Japan*
- *MTSAT Project*
- *Establishment of ATM Center in Japan*
- *FIR Integration*
- *System Integration*
- *Necessary Actions*

Recommendations by the Council for Civil Aviation, Japan

➤ ***In 1994, Council for Civil Aviation Japan concluded that:***

- *The current ATS system will not cope with projected traffic increases*
- *Implementation of satellite-based air navigation systems is imperative for future NOPAC and CENPAC traffic growth*
- *Sufficient system redundancy will be required*

➤ ***Civil Aviation Bureau (JCAB) decided to:***

- *launch a new aeronautical satellite (MTSAT)*
- *implement CNS/ATM Systems centered around the new satellite*
- *design the satellite for wide utilization by aircraft operators and ATS providers in the Asia/Pacific Region*

MTSAT Project

➤ *MTSAT has an **Aeronautical Mission** for enhanced aeronautical services and a **Meteorological Mission** to provide continuous regional services.*

➤ *MTSAT-1*

*- will be launched in **2003***

➤ *MTSAT-2*

*- will be launched in **2004***

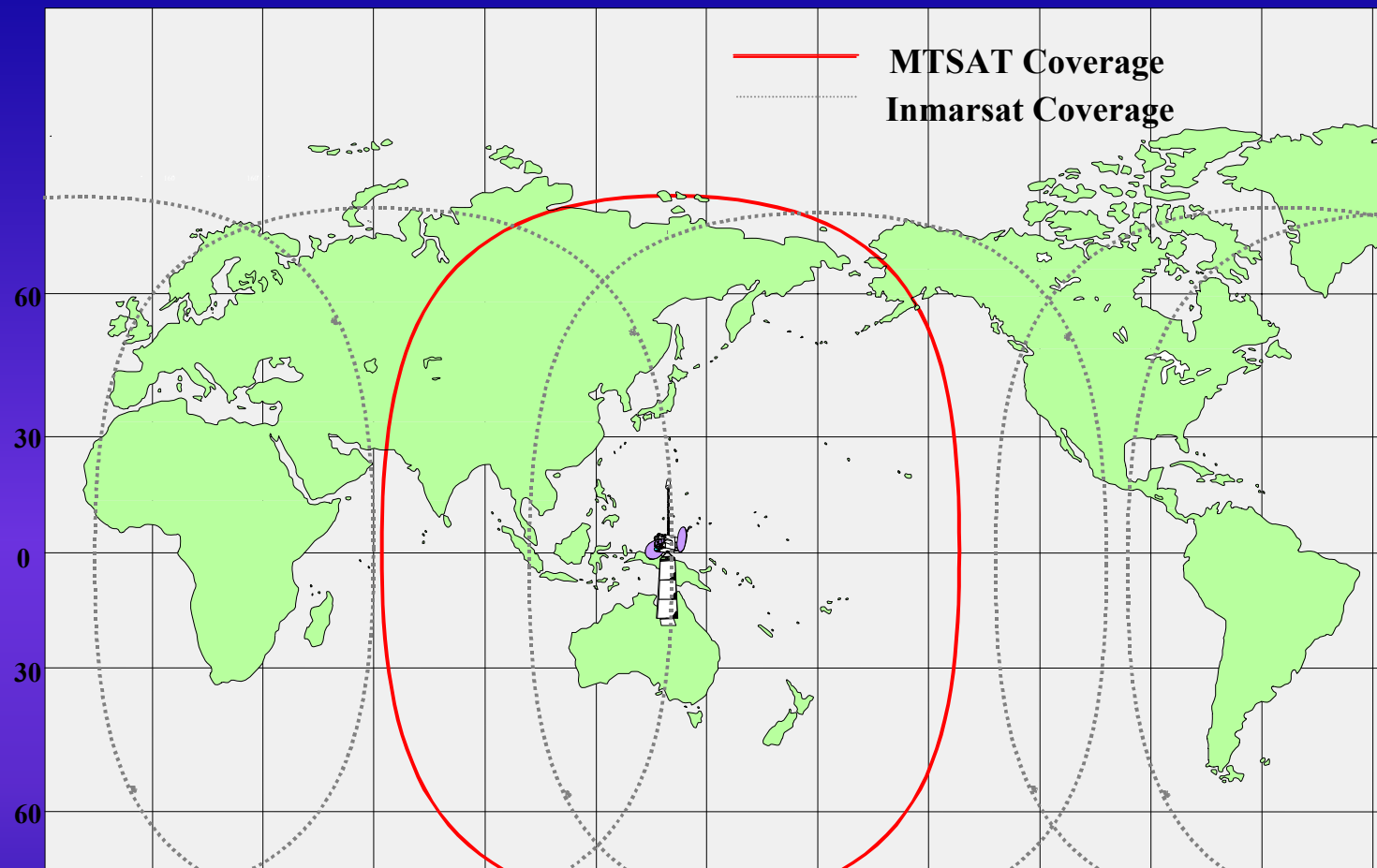
➤ *Future MTSATs*

- will be launched at regular intervals

Double coverage

Double coverage

Coverage of MTSAT and INMARSAT



MTSAT	Inmarsat
Exclusively aeronautical mobile communication	Maritime, aeronautical, land mobile communications
Redundancy by two MTSATs (one “Hot standby”)	Single coverage for the Asia/Pacific Region
Maintained, operated and administered by JCAB	Operated by Inmarsat Ltd. a privatized company

ATM

(Air Traffic Management)

In Japan

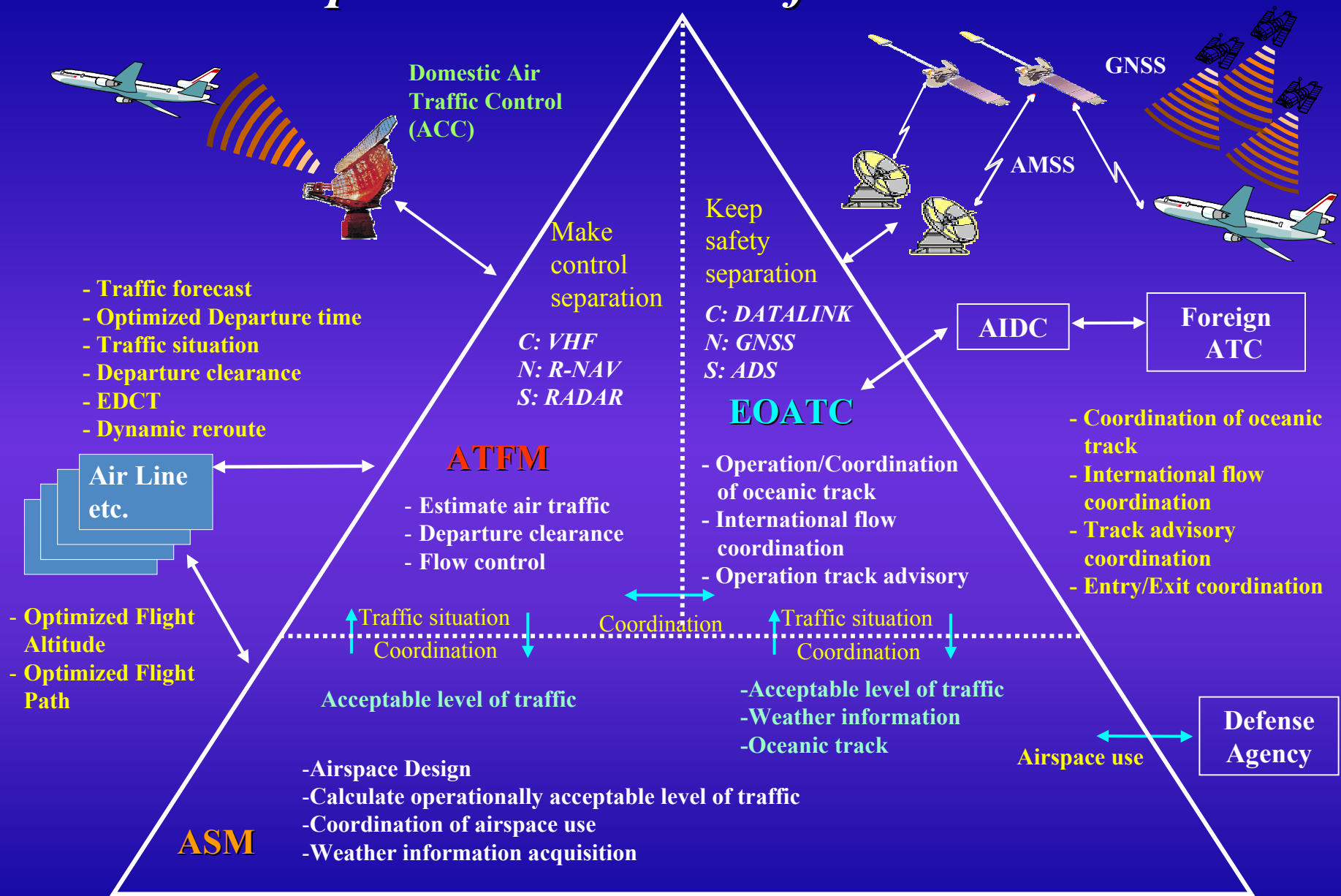
➤ *ATFM Center implemented in 1994*

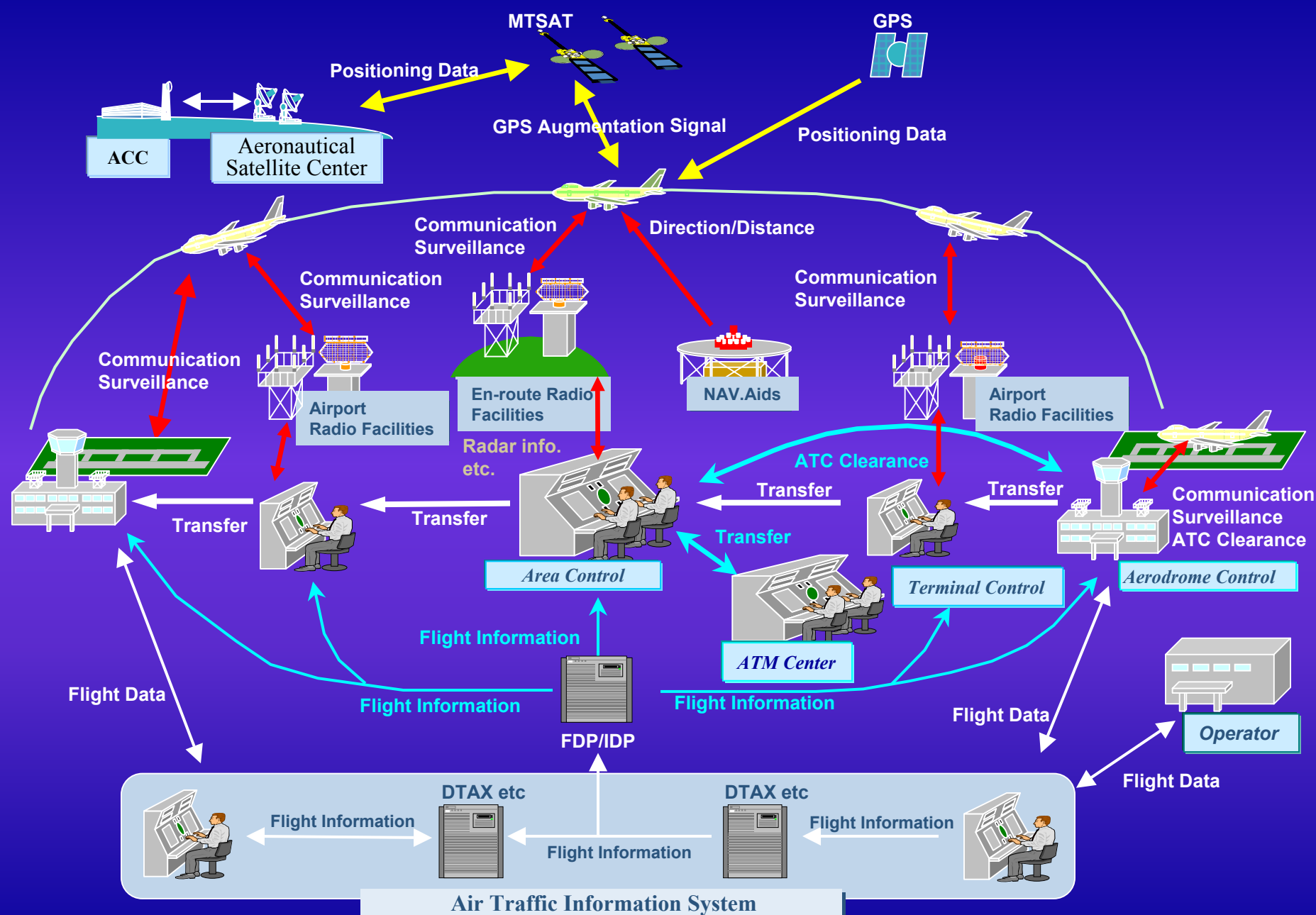
- *Air traffic flow management for domestic air traffic*
- *Issuance of departure time slots*

➤ *ATM Center will be implemented in 2005 to:*

- *combine Naha & Tokyo FIRs into a single FIR,*
- *manage domestic and international traffic flows (ATFM),*
- *realize Enhanced Oceanic Air Traffic Control (EOATC), and*
- *provide airspace management (ASM)*

Operational Scheme of ATM Center

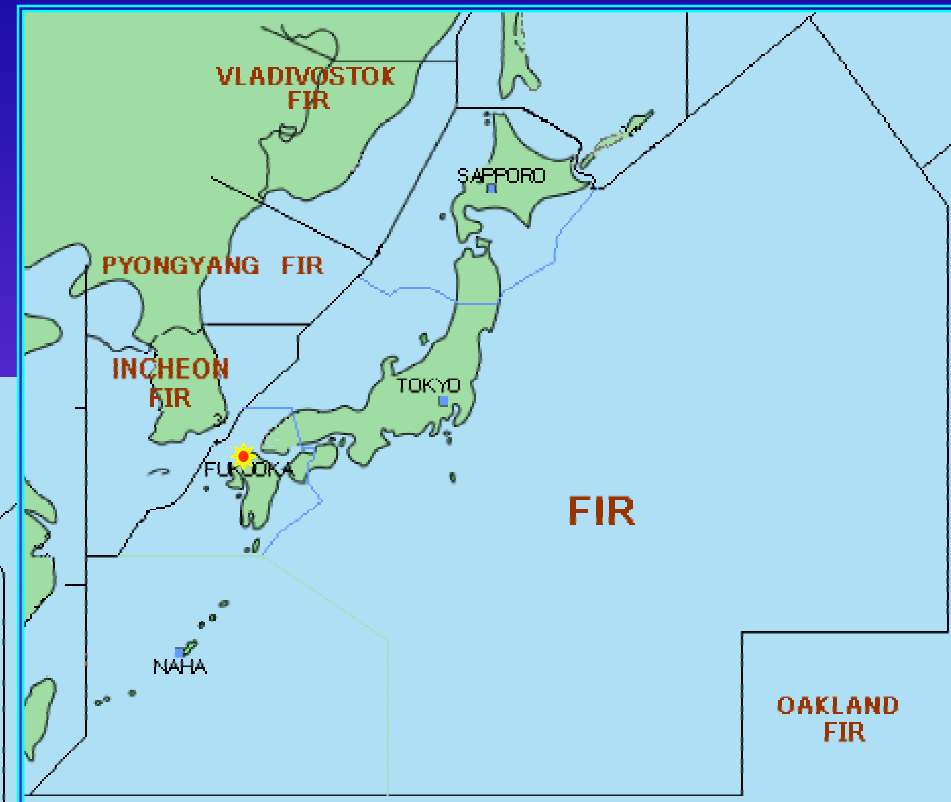
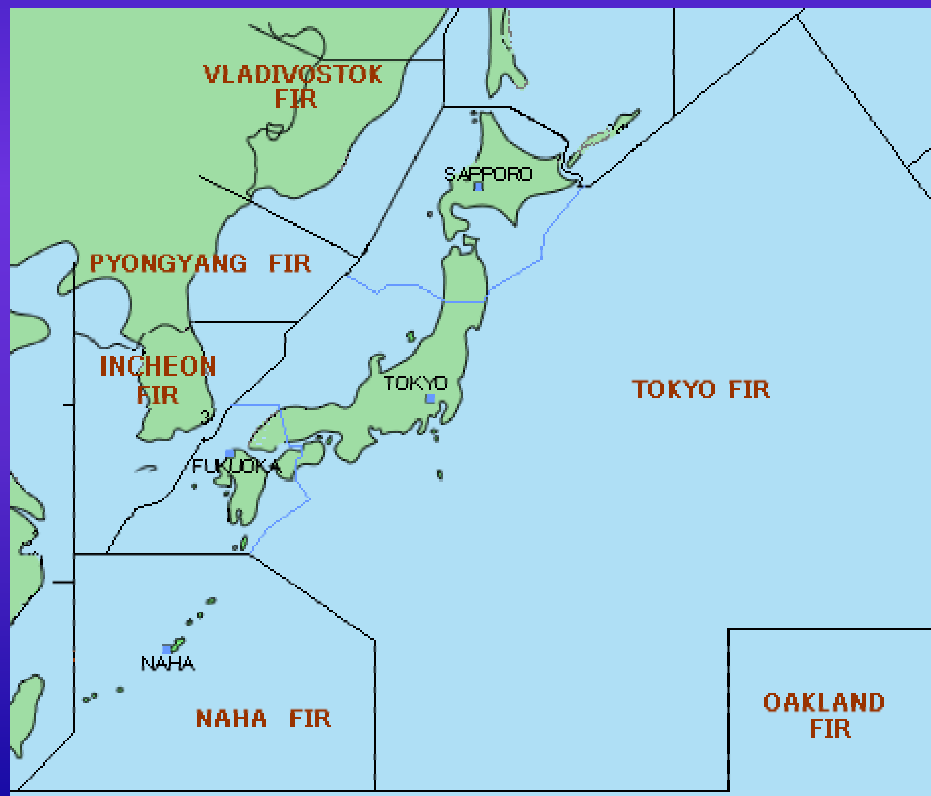




Unification of FIRs and Oceanic ATC

- *Tokyo FIR and Naha FIR are combined into a single FIR.*

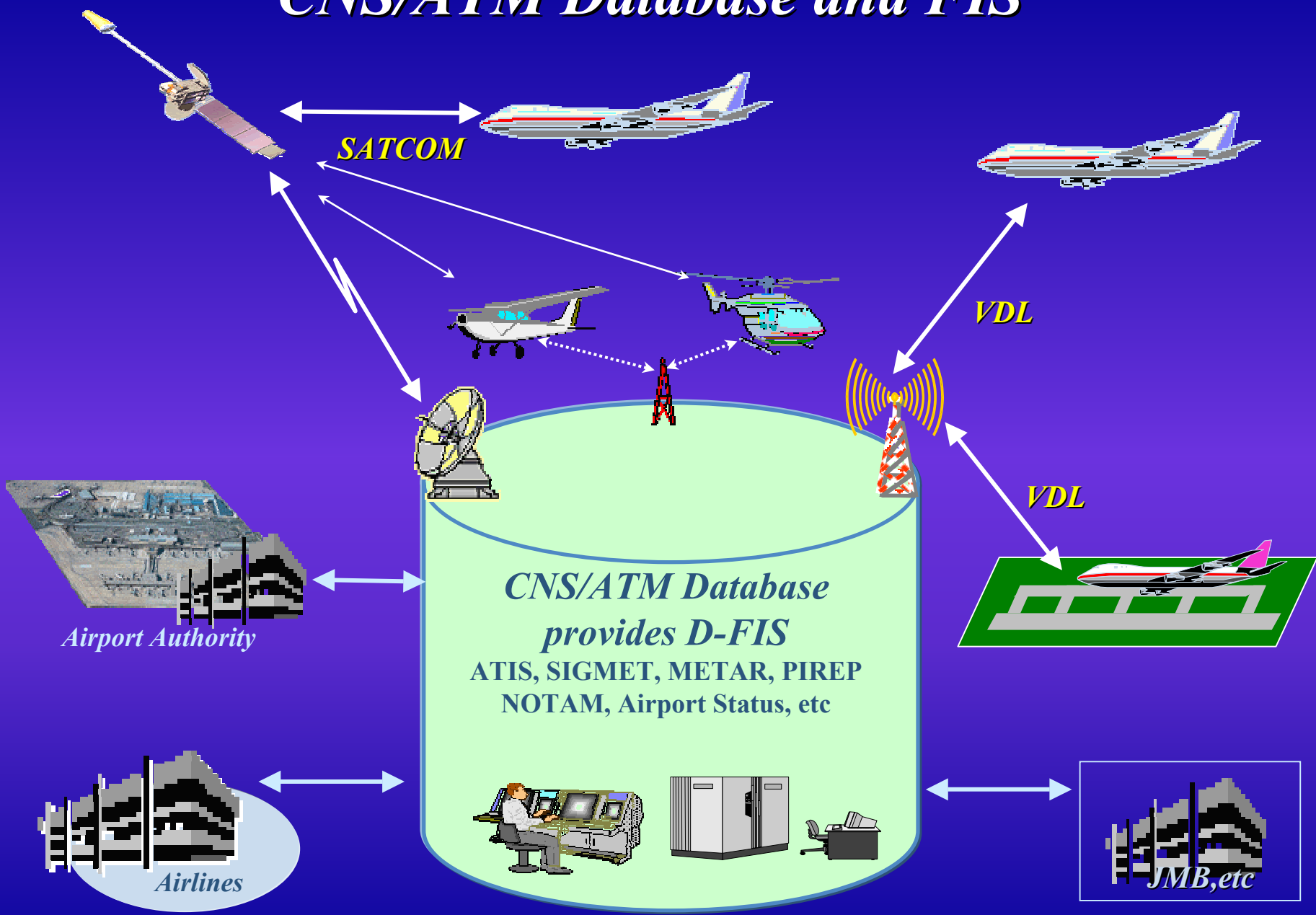
Current



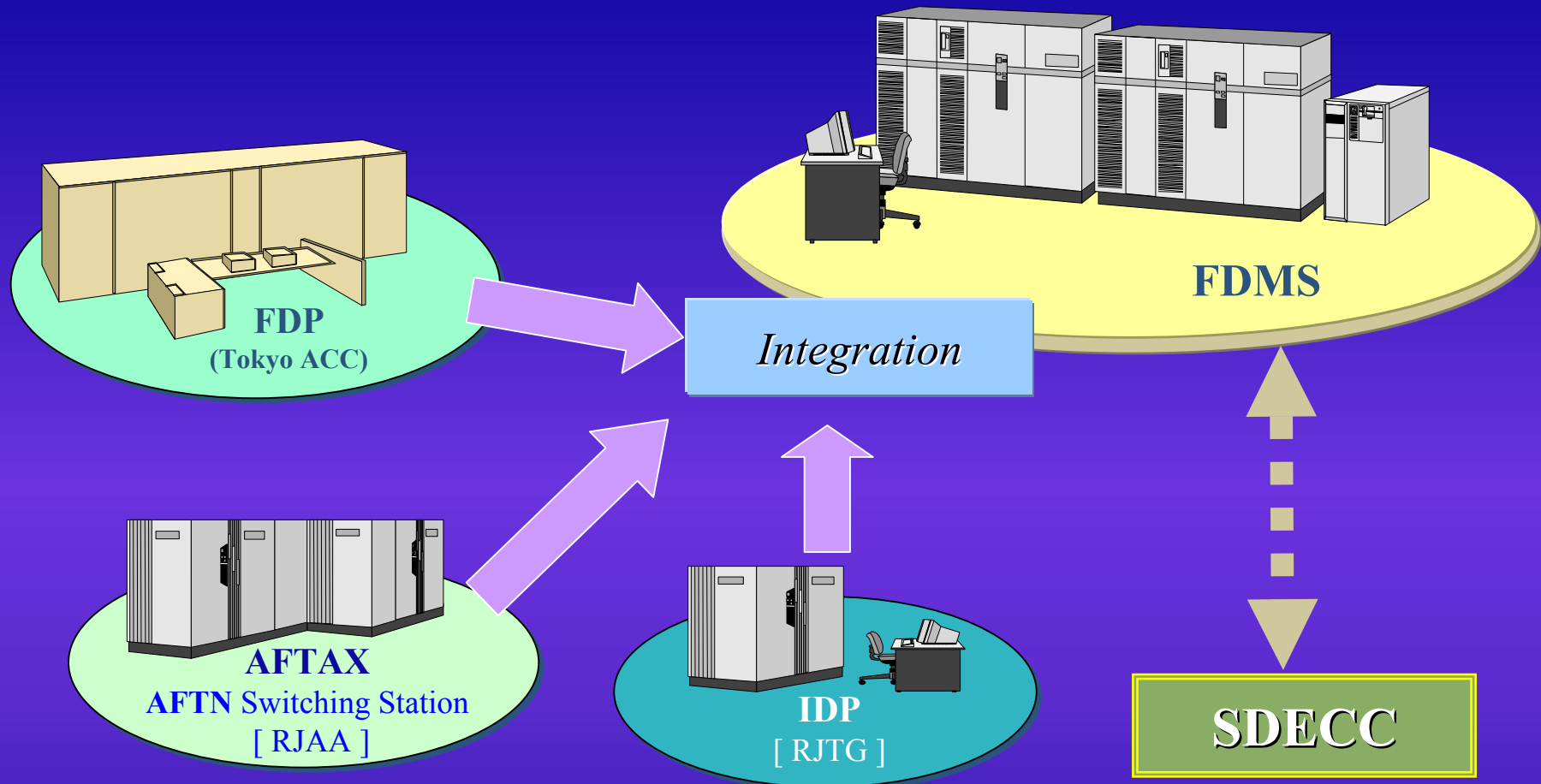
Future

- *Oceanic sectors in Tokyo and Naha ACC are transferred to ATMC*

CNS/ATM Database and FIS



System Integration



FDMS : Flight Data Management System

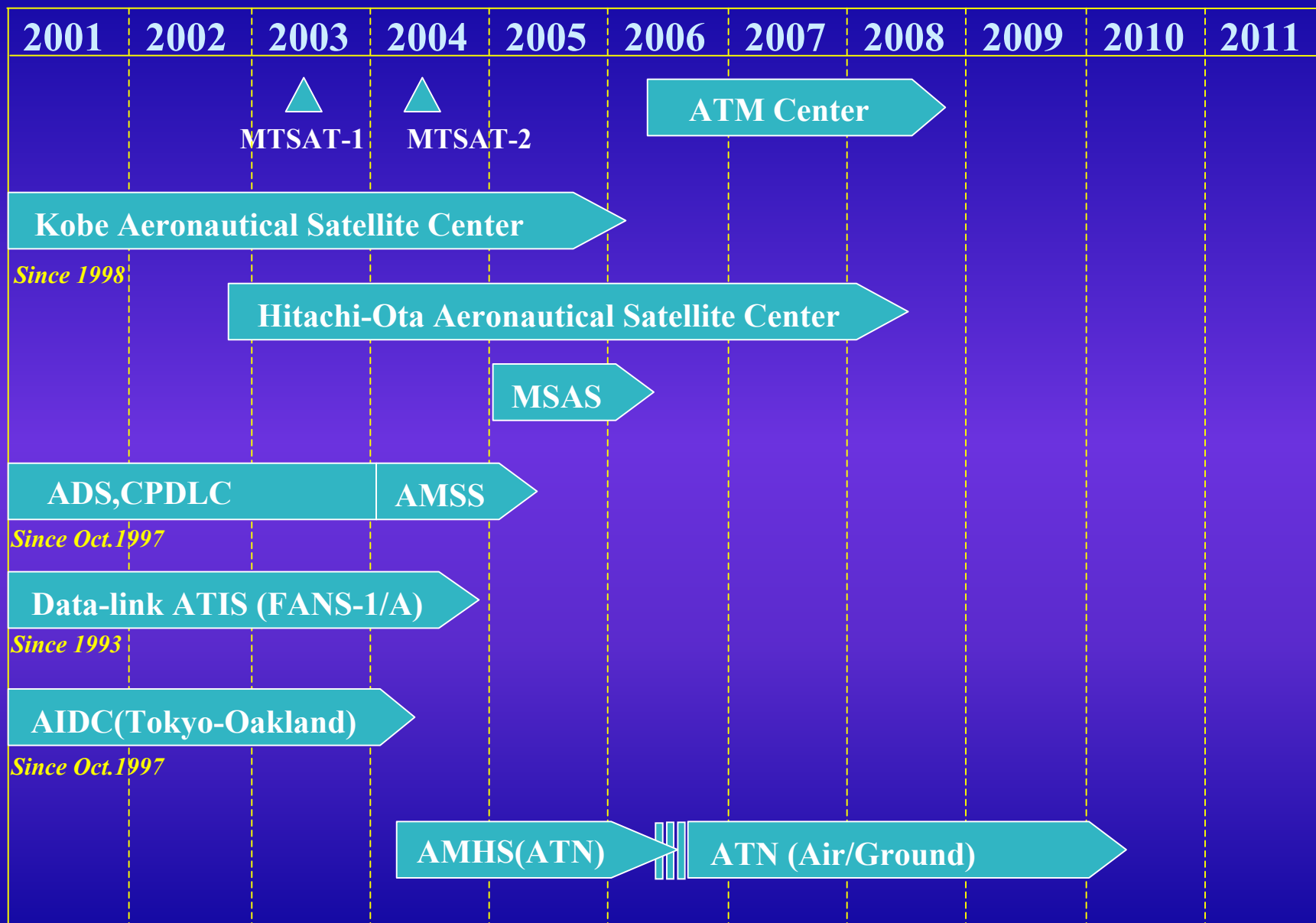
FDP : Flight Data Processing System

AFTAX : Aeronautical Fixed Telecommunication Automatic Exchange and Aeronautical Data Processing System

IDP : Input Data Processing System

SDECC : Systems Development Evaluation and Contingency management Center

Timeline



Necessary Actions

Regarding Integration of FIR and System integration

- *To conduct bi-lateral coordination with adjacent States*
- *To propose and/or offer to ICAO*
- *To relocate and re-build AFTN Center
(establishment of Location Indicator, FIR name)*
- *To establish new Station-address for handling messages*

Thank You

Presented by Tadashi MAHARA

ATS System Planning Division
Air Traffic Services Department
Civil Aviation Bureau



Ministry of Land, Infrastructure and Transport