

## Thailand Modernization CNS/ATM Systems: TMCS

High-performance air navigation infrastructure is a crucial factor facilitating air transport and supporting economic development. Consequently, AEROTHAI has completed a significant project, "Thailand Modernization CNS/ATM Systems or TMCS, which has represented a crucial change for air traffic services. The legacy systems have been replaced with the fully-automated ones throughout the country and connected with the systems of the neighboring countries.

The new air traffic management systems named "TopSky" consist of TopSky ATC, for en-route and approach services, and TopSky Tower, the operating system for control towers. Moreover, the new technologies include Radar Processing System, Flight Data Processing System, Safety Nets, Voice Communication Control System (VCCS), and Uninterruptible Power Supply (UPS).

AEROTHAI has continually developed quality and efficiency of air navigation services and supported sustainability of air transport.

**TMCS**  
Thailand Modernization CNS/ATM System



## Innovations

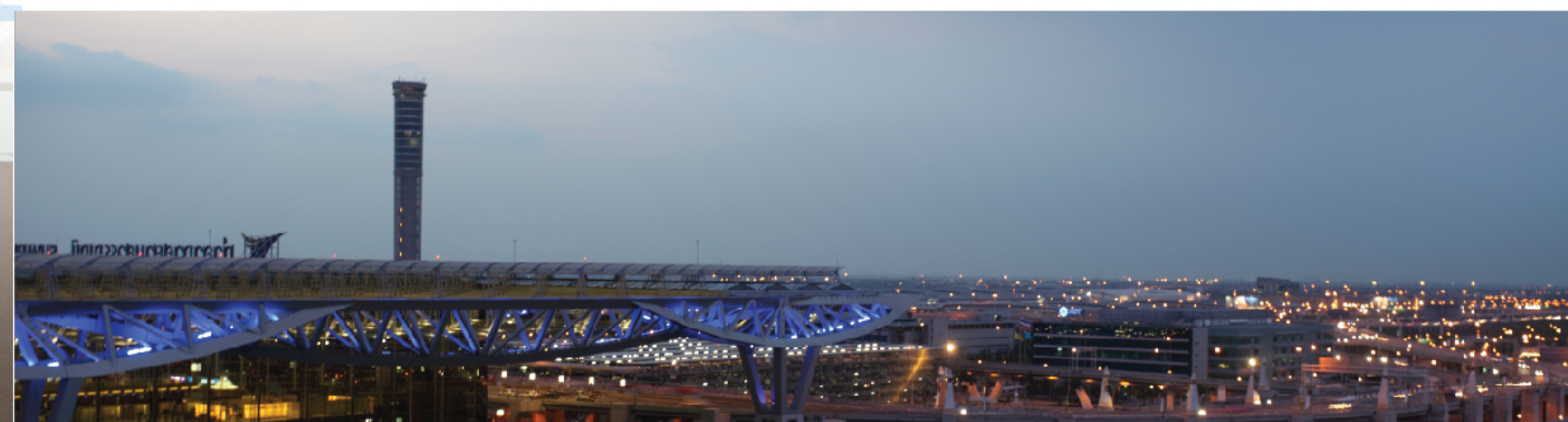
AEROTHAI has continually focused on research, development and innovations for encouraging proactive and effective management. AEROTHAI's staff have been supported to create innovations for improving the service quality and facilitating the operations with the aim to become the knowledge-based organization and bring competitive advantages to aviation industry.

AEROTHAI's staff working at the Regional Air Traffic Control Centres throughout the country have been encouraged to develop innovations for their communities to support economic and sustainable growth.

## Corporate Social Responsibility

AEROTHAI has realized the importance of corporate social responsibility. Consequently, the "AEROTHAI Foundation" was established to provide educational and social opportunities to disabled pupils. The scholarships have been provided to disabled pupils studying in primary schools nationwide to widen their opportunities and improve their wellbeing.

Additionally, AEROTHAI has organized Mini Volleyball Competition for Her Royal Highness Princess Maha Chakri Sirindhorn's Cup to promote sport activity for youth of not over 12 years old throughout the country and support them to develop their skills for further level.



## AERONAUTICAL RADIO OF THAILAND LTD.

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# AEROTHAI



AERONAUTICAL RADIO OF THAILAND LTD.



## History

In 1948, Aeronautical Radio Inc. (ARINC) of the United States of America, International Aeradio Ltd. (IAL) of the United Kingdom and various airlines operating services to Thailand jointly founded Aeronautical Radio of Siam Limited. (AEROSIAM) with the consent of the Royal Thai Government to provide air traffic control services and aeronautical communication services in compliance with the International Civil Aviation Organization's (ICAO) standards.

Later, in 1963 the Thai Government recognized the importance of the Company's responsibility that concerned the national securities and aviation development. It acquired the majority of share capital from the founding airlines and changed its name to Aeronautical Radio of Thailand Limited (AEROTHAI). The Company's status has then become a state enterprise under the Ministry of Transport, operating as a limited company under the agreement between the Company and the Ministry of Transport with commitment to perform the task on behalf of the government.

As the Government has a policy to develop air transport, AEROTHAI has been assigned to provide air navigation services, aeronautical telecommunication services, air traffic services and aviation related services at commercial airports nationwide. When these services are under the management of a sole organization, there is a unity of air traffic control services as they are integrated and cost is also decreased. This allows the air transport infrastructure to be developed harmoniously towards the same direction throughout the country.

As a state enterprise under the Ministry of Transport, AEROTHAI provides non-stop air navigation services in accordance with international standards to ensure maximum satisfaction to users under the concept of Good Corporate Governance and the commitment to the International Civil Aviation Organization (ICAO) and the Thai Government.

### Vision

*“A Sustainable Quality Excellent Air Navigation Service Provider”*

### Mission

*“To be the national air navigation service provider that meets users’ requirements in safety, standards, and efficiency while realizing the responsibilities to all stakeholders and national interests.”*

## Services

### Air Traffic Management (ATM)

AEROTHAI provides air traffic services within the Bangkok Flight Information Region (Bangkok FIR) to ensure safety and efficiency for air transport, divided into 3 parts:

#### 1. Aerodrome Control Service

Aerodrome Control Service is provided within 5 nautical mile radius from each airport at average altitude from ground up to 2,000 feet. Runway and taxiway is also included in Aerodrome Control Service.

#### 2. Approach Control Service

Approach Control Service is operated for taking-off and landing aircraft including aircraft flying through the airports under the responsibility of AEROTHAI.

##### 2.1 Approach Control Service at Don Mueang Airport and Suvarnabhumi Airport:

It is operated under Bangkok Terminal Control Area (BKK TMA) and Bangkok Control Zone (BKK CTR) within a radius of 50 nautical miles from the airports at altitudes up to 16,000 feet.

2.2 Approach Control Service at provincial airports: It is provided at commercial airports nationwide within a 30 nautical mile radius from each airport at altitudes up to 11,000 feet.

#### 3. Area Control Service

Area Control Service is provided to all kinds of aircraft operating in the BKK FIR.

## Aeronautical Communications, Navigation and Surveillance (CNS)

Communications: AEROTHAI operates air navigation communication system supporting pilot – ATC communication and communication among ATCs with high speed for the circulation of aviation messages and expeditious coordination.

Navigation: AEROTHAI provides navigation service to support aircraft with accurate direction, airport path and landing approach. The system navigates aircraft to destinations with safety and rapidity.

Surveillance: The surveillance system displays aircraft information including aircraft call sign, position, direction, speed, height and other information for tracking aircraft.

## Aeronautical Information Service (AIS)

AEROTHAI provides Aeronautical Information Service (AIS) including flight plans, meteorological information, Notices to Airmen (NOTAM) and other useful information to support safe and smooth air transport.

## Other Services

AEROTHAI provides aviation-related services and other services as follows:

- Flight Inspection Service
- Calibration Service
- Communication Equipment Rental Service
- Procurement and Maintenance Service
- Satellite Communication Service
- Training and Consultancy Service