



ICAO

*International Civil Aviation Organization***EIGHTH MEETING OF SPECTRUM REVIEW WORKING GROUP (SRWG/8)**

Bangkok, Thailand, 05 – 07 March 2024

Agenda Item 9: State and regional updates**AVIATION FREQUENCY SPECTRUM MANAGEMENT IN THAILAND**

(Presented by Thailand)

SUMMARY

This paper presents Thailand's effort to enhance the mechanism of national aviation frequency spectrum planning and management.

1. INTRODUCTION

1.1 As the volume of air traffic rises in response to the demands of the tourism sector, numerous infrastructure constraints necessitate attention to accommodate this escalating demand. Efforts have been undertaken globally to manage airspace and airport capacity, incorporating novel technologies to address the challenges posed by these finite resources. Nevertheless, the advent of new technologies, not confined to the aviation sector alone, has precipitated a contest for control over the frequency spectrum.

1.2 The frequency spectrum constitutes a finite resource utilized across various industries, including the aviation sector. Consequently, effective aviation frequency management emerges as a pivotal process essential for ensuring the efficient and optimal utilization of this resource.

1.3 The institutional relationship for governing frequency spectrum management between telecommunications and civil aviation sector is shown in Figure 5-1 of ICAO Doc 9718 Handbook on Radio Frequency Spectrum Requirements for Civil Aviation - Volume I - ICAO spectrum strategy, policy statements and related information (Third Edition - 2023) as outlined below:

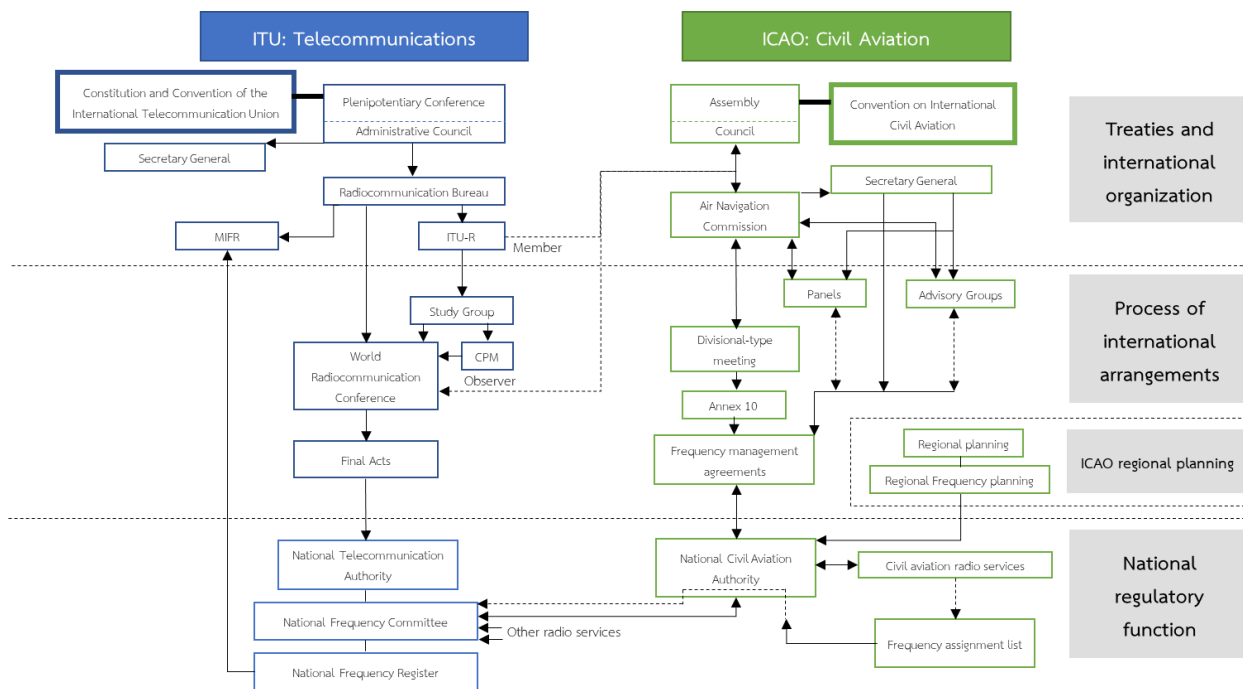


Figure 1 Frequency management institutional relationship

(Source: ICAO Doc 9718 Vol. I)

1.4 According to the ICAO Doc 9718 Vol. I, the aviation frequency management can be divided into three levels:

- **Global level:** this level entails the formulation of coordinated ICAO policies, spectrum estimations, and technical contributions for ITU conferences and ITU-R study groups. Within this framework, the ICAO Council grants approval for the ICAO spectrum strategy, policy statements, and the ICAO Position for World Radiocommunication Conferences (WRCs),

- **Regional level:** this level is carried out by the ICAO Regional Offices, through coordination of frequency assignment plans with States, using agreed ICAO planning criteria,

- **National level:** this level pertains to the management and planning of frequency spectrum resources by individual States, in accordance with their regulatory mechanisms.

1.5 ICAO recommends that, at the national level, each State should establish its own procedures for the management and planning of the aviation frequency spectrum. This is to ensure compliance with both telecommunication and civil aviation standards and regulations.

1.6 To expedite the recovery of air traffic after the COVID-19 pandemic and to guarantee sustained growth marked by the enhancement of sustainable capacity and efficiency, it is imperative that the Civil Aviation Authority (CAA) undertakes the establishment of a function dedicated to planning and managing aviation frequency spectrum.

2. DISCUSSION

2.1 The planning and management of the frequency spectrum in Thailand falls within the authority of the National Broadcasting and Telecommunications Commission (NBTC). Consequently, the

authorization, allocation, and distribution of all frequencies, encompassing those within the aviation spectrum, are subject to regulation and oversight by the NBTC, necessitating strict adherence to its governing regulations.

2.2 In the aviation sector, the Civil Aviation Authority of Thailand (CAAT) primarily focuses on the continuous monitoring of civil aviation safety through the implementation of ICAO Standards and Recommended Practices (SARPs). Consequently, the introduction of new technologies in the aviation industry must undergo oversight by both NBTC and CAAT. However, this dual regulatory process may impose burdens on industries, leading to additional and potentially unnecessary processes before the implementation of new technologies.

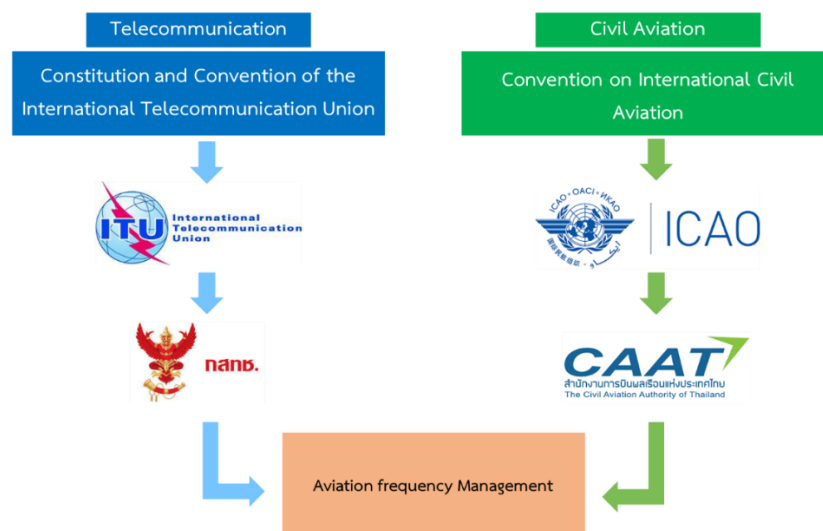


Figure 2 Relationship between telecommunication and civil aviation institutional on aviation frequency management in Thailand

2.3 To enhance the national aviation frequency spectrum planning and management mechanism, CAAT is in the process of establishing a new section/department to serve as the focal point for all matters related to aviation frequency spectrum. It will include managing functions such as:

- aviation frequency spectrum planning and management,
- coordination with the NBTC and ICAO regional office,
- promotion at the regional and global level,
- protection from radio frequency interferences (RFI).

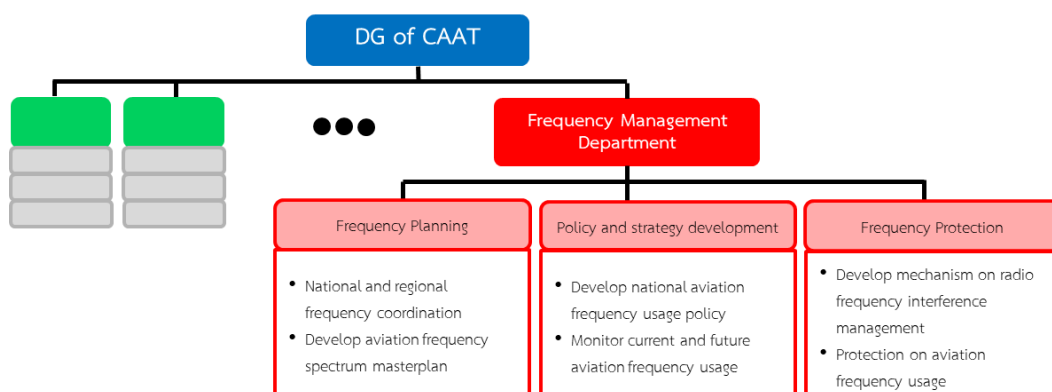


Figure 3 Responsibilities of new frequency management section/department

2.4 Moreover, the working interface between NBTC and CAAT will be developed and established between both organizations. This will include initiatives such as:

- revising the Memorandum of Understanding (MoU),
- developing integrated planning and working processes,
- establishing the data sharing system.

2.5 To facilitate all key activities and initiatives, the transition plan was developed and endorsed by the Director General of CAAT. The transition plan is divided into three phases:

- **Phase-I:** recruiting and training new technical staff,
- **Phase-II:** improve the working interface with NBTC,
- **Phase-III:** establishing a new department.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matter as appropriate
