

**58th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 4: AIR NAVIGATION

**THAILAND'S AIR NAVIGATION SERVICES
REGULATION TRANSITION**

(Presented by Thailand)

INFORMATION PAPER

SUMMARY

This Paper provides information on Thailand's legal approach transition from a compliance-based approach to a performance-based approach called Thailand Civil Aviation Regulations (TCARs) focused on the aspect of Air Navigation Services.

THAILAND'S AIR NAVIGATION SERVICES REGULATION TRANSITION

1. INTRODUCTION

1.1 Thailand currently has numerous regulations addressing the requirements of Civil Aviation in Thailand, which providers must comply with. These regulations have only been using the compliance-based approach, using prescriptive regulation to define numerous mandatory requirements, which might be a burden for providers as some requirements are not specifically safety risks related or suited for their operational size and complexity.

1.2 Since the aviation industry is constantly evolving with new technological advancements such as drones and advanced air mobility and facing technological issues that have already disrupted other industries, such as artificial intelligence (AI) and cybersecurity; by only using a compliance-based approach, regulation needs time before amending to encompass these issues leading to regulatory ineffectiveness.

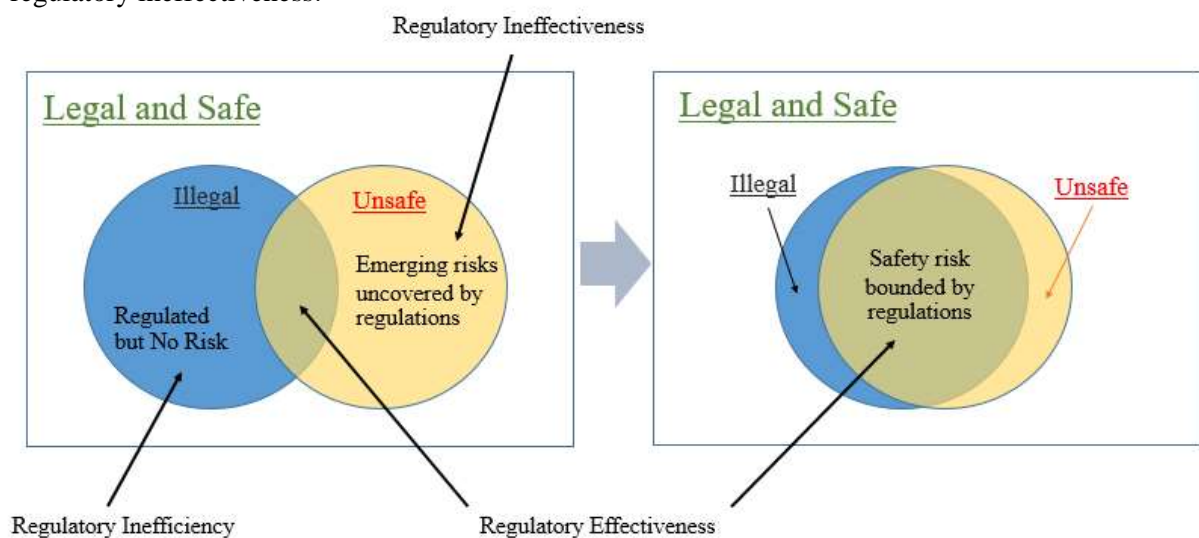


Figure 1: Venn Diagram depicting the relationship between regulations and safety
(Left: Regulations and Safety are of different interests, Right: Regulation is shifted to focus more on safety)

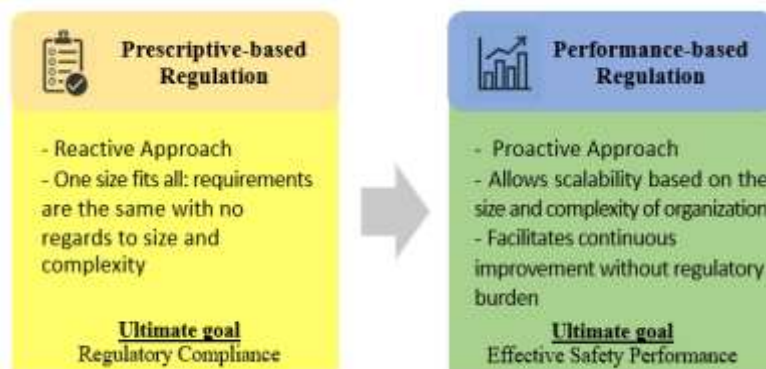


Figure 2: Comparison of Prescriptive and Performance-based Regulation Approaches

1.3 The Civil Aviation Authority of Thailand (CAAT), therefore, have decided to review current regulations with technical assistance from CAA International (CAAi) and DGAC France to put more focus on safety as well as incorporating a performance-based approach to decrease regulatory inefficiency and regulatory ineffectiveness. The development of this new set of regulations has also been placed in CAAT's strategic plan 2024-2028 to improve Thailand's capabilities towards

international standards and will be called the Thailand Civil Aviation Regulations (TCARs), which will cover all civil aviation activities in Thailand including Air Navigation Services (ANS).

1.4 The transformation of current ANS regulations to a performance-based regulation will provide more flexibility to regulators to focus more on safety performance and air navigation service providers (ANSPs) to effectively manage their risks, which will expectedly raise the effective implementation (EI) of ICAO standards.

1.5 The structure of TCAR part ANS includes the common organization requirements (ANS.OR) and the specific requirements of the services that the ANSP provides in the field of air traffic services (ATS), meteorological services (MET), aeronautical information services (AIS), communications, navigation, and surveillance services (CNS), air traffic flow management (ATFM), airspace management (ASM), instrument flight procedure design services (IFPD), and search and rescue services (SAR).

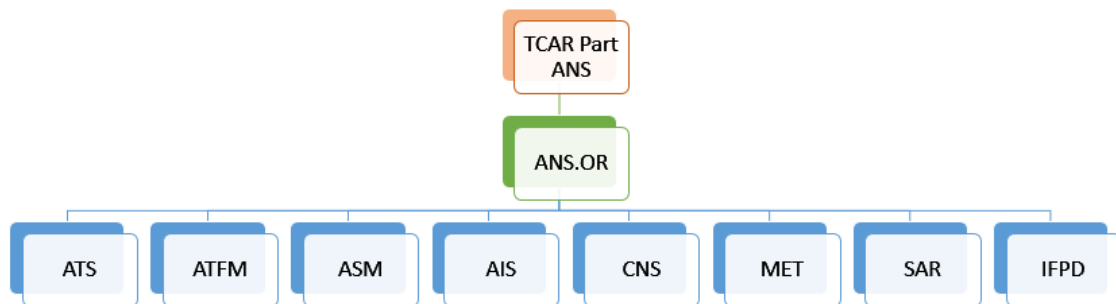


Figure 3: Structure of TCAR Part ANS

2. DISCUSSION

2.1 As can be seen in Figure 4 below, the transition of ANS regulations from current compliance-based regulations to the future performance-based TCAR has begun with the development of the new regulations targeted to enter the legal process by the end of 2023. The developments of TCAR began with a gap analysis of current regulations and the European Union Aviation Safety Agency (EASA)'s performance-based regulation, Regulation 2017/313.

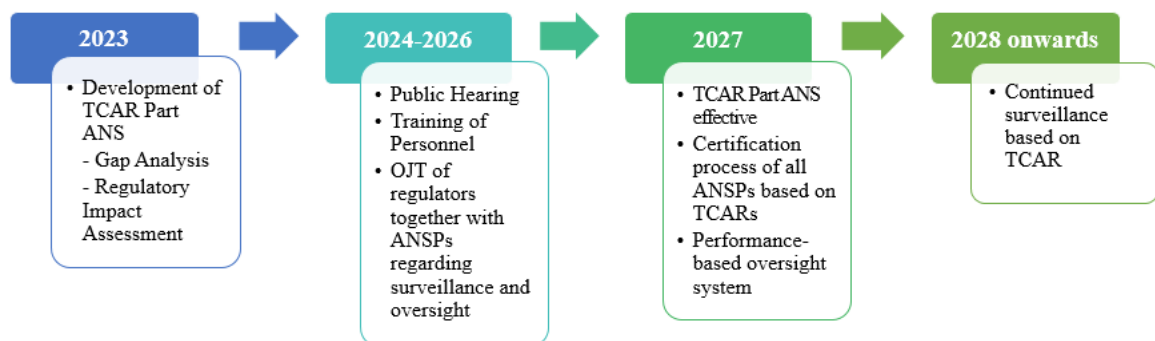


Figure 4: Transition Plans before TCAR Publication

2.2 After final revisions of TCAR Part ANS, including Acceptable Means of Compliance (AMC) and Guidance Materials (GM), await legal process, training will be provided in the second and third quarter of 2024 to both CAAT's personnel as well as affected stakeholders such as ANSPs to have a better understanding of performance-based regulations and its benefits to facilitate in a smooth transition.

2.3 After TCAR Part ANS has completed the legal process and is published, a period of time where compliance is still with current regulations is given to both ANSPs and CAAT to study and evaluate the changes as well as updating related forms and checklists. During this time, OJT is planned

for both CAAT and ANSPs on how surveillance will be carried out and how compliance will be achieved once TCAR becomes effective.

2.4 TCAR Part ANS is expected to become effective and previous regulations revoked by the end of 2027. Oversight and surveillance of ANS will be carried out on the basis of TCAR as well as re-certification and certification of new ANSPs.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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