International Civil Aviation Organization

Fifteenth Meeting of the ICAO Aeronautical Information Services − Aeronautical Information Management Implementation Task Force (AAITF/15)

Video Teleconference, 01 – 05 June 2020

Agenda Item 4: Review of Air Navigation Deficiencies in the AIS Field

AIS DEFICIENCIES IN THAILAND

(Presented by The Civil Aviation Authority of Thailand)

SUMMARY

This paper presents relevant information about the implementation of WGS-84 and AIS Quality Management System (QMS) in Thailand which are two deficiencies identified in the AIM deficiencies list. It aims to demonstrate to APANPIRG, through AAITF meeting that Thailand has completed the work necessary to rectify those two deficiencies.

1. INTRODUCTION

1.1 The information contained in this paper is developed to demonstrate that Thailand has completed the work necessary to rectify AIM deficiencies which are WGS-84 and AIS QMS implementation.

2. DISCUSSION

WGS-84 Implementation

2.1 Thailand has established WGS-84 implementation plan since 2017. It aims to evaluate and improve the quality of geographic coordinates and vertical datum to meet the ICAO's specification in Annexes 4, 11, 14 and 15 even though the existing survey point has already been conducted to comply with ICAO's specification on WGS-84 standard and requirements. In this regard, Thailand's WGS-84 implementation plan prescribed all detailed activities including executing body and target of implementation dates. At this stage, Thailand has obtained success in several steps according to this plan.

2.2 At the first stage, CAAT reviewed the currently calculated or declared coordinates in AIP Thailand to create a survey questionnaire to collect the status of all coordinates to ensure that all existing coordinates conform to the WGS-84 reference system and data quality control, while establishing the national regulations to promulgate WGS-84 standards and other necessary requirements as described in ANSP Manual of Standards (MOS) and Aerodrome Regulation.

2.3 Moreover, a number of workshops were conducted to explicate survey procedure and guidance for aerodrome surveyors, data originators, and related units to ensure the understanding of all procedures of WGS-84 and data quality requirement. Related stakeholder has reviewed its procedure, resurveyed, and confirmed the surveyed, declared and calculated points by applying methodology in accordance with applicable regulations and the WGS-84 survey manual. As a result, all coordinate points in AIP-Thailand have been updated and revised by related data originators, while AIS applied quality control measures as prescribed in the applicable regulations.

2.4 From that time onwards, AIS ensures that all coordinates comply with data quality requirement and periodically updates coordinates in accordance with applicable regulations.

AIS Quality Management System Implementation

2.5 Thailand recognizes the importance of adequate, quality and timely aeronautical information and data necessary for the safety, regularity and efficiency of air navigation. To achieve this, Aeronautical Information Service (AIS) implements efficient quality management system (QMS) as classified in three phases as following;

Phase I – Planning (Year 2017)

2.6 The planning phase is to review the existing quality system within AIS unit and to identify gaps where there is a need to develop and expand existing features of the system. This 'gap analysis' reveals where additional procedures and documentation will be required. AIS performed gap analysis by implementing the following:

a. Review current situation, what elements of a QMS were in place:
- AIS organization structures;
- Process documents and procedures;
- Checklists, logs, forms and records;
- Duties and responsibilities.

b. Identify required items that are not in place:
- Management engagement;
- Quality policy and Quality representative within AIS department;
- Some process documents and necessary records;
- An internal quality audit process;
- A formal management review process;
- A continual improvement process;
- A formal arrangement between AIS and its data originators.

c. Reassure successful implementation by planning the following items:
- Identify resources;
- Plan and assign related activities;
- Make time scales and documentation;
- Allocate responsibilities;
- Monitor progress regularly.

Phase II – Design (Year 2018)

2.7 In this stage, AIS described existing processes and designed new processes as needed. Such activities include explicating the processes in detail, checking interfaces, and how to streamline the process undertaken.

2.8 Additionally, AIS developed the procedures to carry out processes that defined how a process is performed in the following way: Establish current practice; Document current practice; Review current practice; Prepare procedure; Review and approve; Issue procedure while collaborating and deploying AIM system which has data quality control in placed.

2.9 Furthermore, Air Navigation Services Standards (ANS) under CAAT promulgated ANS regulations and Manual of Standard (MOS) stating the QMS requirement in accordance with amendment 40 to Annex 15 and PANS-AIM to regulate the implementation of QMS,

2.10 As the implementation of the provisions set forth in ANS regulations and MOS, AIS developed QMS manual based on QMS framework, by completing the following activities:

- Develop the quality policy;
- Establish resource management e.g. recruitment and training procedure;
- Identify all necessary processes, procedures and work instructions relevant to AIM system; and
- Establish performance evaluation and continuous improvement procedures.

Phase 3 – Deployment and Implementation (2019 – Present)

The implementation of the QMS includes quality documentation, quality procedures, deployment of quality functions, result monitoring and measurement, and initiation of the improvement actions.

The quality policy and quality objectives calls for documentation and quality records of each AIS functional stages of AIS Products, which will be communicated to all AIS staff and stakeholder beginning year 2019 by doing holding a regular meeting, seminar or workshop conducted by AIS.

To ensure robustness, quality management procedures are developed, implemented and used by all originators and publishers of aeronautical information; Service Level Agreement (SLA) between AIS and its data originators has been initiated and discussed to ensure timeliness and data quality. Currently, the full implementation of SLA with ATS/IFPD/CNS is completed and will be followed by the completion of SLA with two major aerodrome operators, covering all airports under the management of both Airports of Thailand (AOT) and government.

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 matters as appropriate.