International Civil Aviation Organization

Twentieth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/20)

Chitose, Japan, 9 – 13 June 2025

Agenda Item 4: AIS-AIM Updates

QUALITY MANAGEMENT OF AERONAUTICAL INFORMATION DATA IN CHINA

(Presented by CHINA)

SUMMARY

This paper presents the relevant work of China in aspects of aeronautical information data "verification and validation" measures.

1. INTRODUCTION

1.1 The quality of aeronautical data is directly linked to flight safety, operational efficiency, and decision-making reliability. Any lapse in data quality assurance may lead to severe consequences.

1.2 In compliance with ICAO Annex 15 and PANS-AIM (DOC 10066) requirements, China's Aeronautical Information Service (AIS) department has implemented a "Verification + Validation" framework to ensure data meets standards for accuracy, resolution, integrity, traceability, timeliness, completeness, and format, thereby delivering reliable aeronautical information to users.

1.3 This IP integrates the operational experience of AIS in China, aiming to enhance the efficiency and quality of aeronautical data verification and validation through end-to-end data chain quality management and multidimensional methodology development.

2. DISCUSSION

2.1 **Original Data Review Guidance Manual**. This manual is primarily designed to guide AIS personnel in standardizing the review process of source data related to airport details, route information, and aeronautical charts published in AIP. It contains essential review points, standardized procedures, and data verification checklists to ensure AIS personnel can perform verification and validation work with the highest quality standards.

2.2 **Data verification rules.** At present, China has preliminarily completed the construction of AIM system based on the AIXM5.1 standard, and is gradually transitioning to digital operation. The business rules in the AIM system can help aeronautical information services providers improve data quality. For example, different data have different verification requirements, and for critical data, the system will conduct multiple verifications after identification. With the continuous improvement of AIM system functions, the verification rules for data in AIM system are also constantly being perfected.

2.3 **Pre-review.** The pre-review mechanism is implemented by airport AIS units to enhance the quality of raw data. This process involves the AIS department's early engagement during the

airport flight procedure design phase, where they collaborate with data originators, construction departments, and flight procedure design teams to conduct joint data quality verification and validation. By improving the quality of raw data from the initial stage, this approach significantly reduces the need for subsequent verification processes while simultaneously increasing both the quality and efficiency of data validation.

2.4 **Personnel Communication and Coordination**. Regular communication and coordination with flight crews, air traffic control units, and airport operators through multi-party engagements. This collaborative approach establishes a closed-loop feedback mechanism for aeronautical data quality, enabling continuous improvement and enhancement of information accuracy and reliability.

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.

– END –