INTERNATIONAL CIVIL AVIATION ORGANIZATION

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
TWENTIETH MEETING (APIRG/20)
(Yamoussoukro, Cote d'Ivoire, 30 November to 2 December 2015)**

Agenda Item 2: Performance Framework for AFI Regional Air Navigation Planning and Implementation

2.5: Aeronautical Information Management

AERONAUTICAL INFORMATION CHANGES AND THE IMPACT ON THE USER NEEDS

(Presented by the IATA)

SUMMARY
AIS management has become an emerging safety concern and in particular, the late publication or late postponement of aeronautical information. The safety of flight depends on accurate and on-time provision of aeronautical information. Adherence to AIRAC Cycle date has become even more critical for safety of flight operations. ICAO Annex 15 provisions must be the guiding factor for States/ANSP for the management of aeronautical information processes, failure of which may result in serious flight safety issues for both airline operators and ATC. IATA safety initiative; 'to identify and address emerging safety issues' has embarked on actions/activities to support improvements in the quality and timely provision of Aeronautical Information services (in collaboration with industry partners). Lack of AIRAC adherence, including late source or late postponements, lead to incorrect or missing data in the onboard navigation databases (NavDB). In addition, other main concerns to the end users are the inconsistency and inadequacy of data in the AIPs, the integrity of the data and unreliable and unresponsive clarification channels which indicate challenges within the region to implement the AIS to AIM transition roadmap.
Action required by APIRG/20 is at paragraph 3.
REFERENCES: • ICAO Annex 15 Chapter 6 • ICAO Doc 8126 • ICAO Doc 9613 PBN Manual • RTCA DO-200A/EUROCAE ED-76 • AIS to AIM Transition Road Map
Strategic Objective(s) — This working paper related to the Strategic Objectives **A** and **B.**

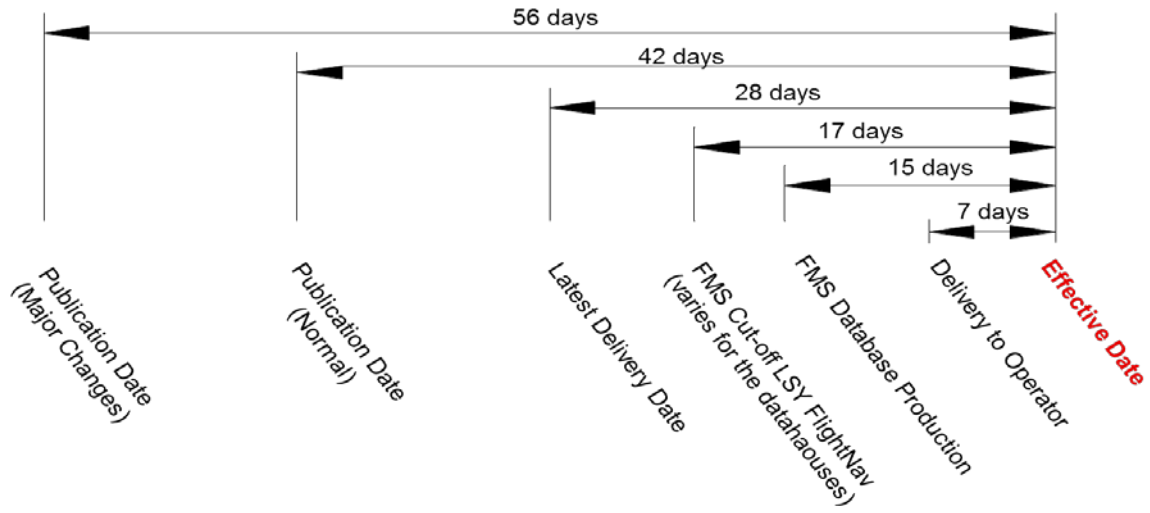
1. INTRODUCTION

1.1 The aviation environment undergoes constant change. Airspace structures and routes are revised, more PBN procedures are implemented or revised, navigation aids change, SIDs and STARs are amended and airport runways and taxiways information changes. It is critical for flight safety that any such changes are published and promulgated in a timely and appropriate manner to ensure that all the aeronautical information users, particularly pilots and ATC, have access to and are using the same quality assured, accurate, preferably digital data set.

2. DISCUSSION

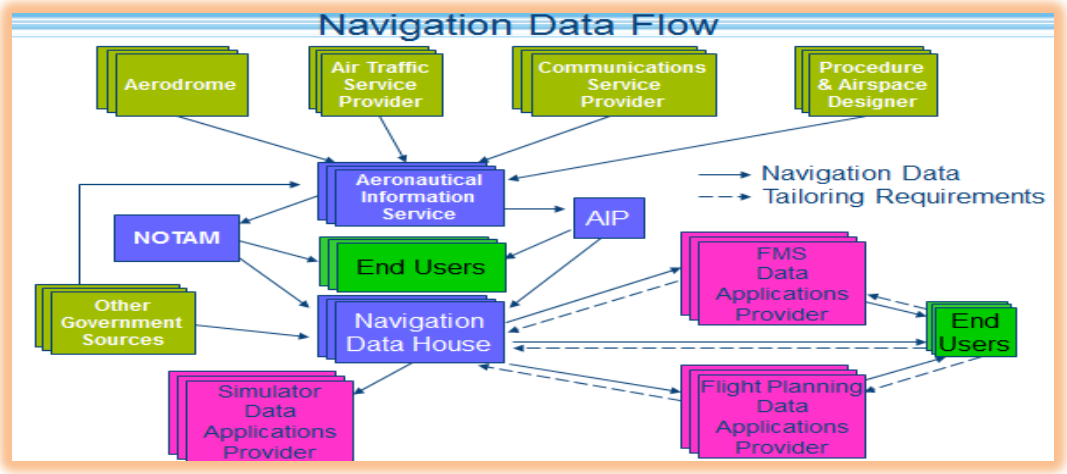
2.1 To address these issues, amongst others, ICAO has a Roadmap for the Transition from AIS to AIM which is defined by a 3-phased implementation plan. Phase 1 and 2 of these should already be in place, however fundamentally, phase 1 elements remain a challenge in the region, never mind phase 2 and 3 elements.

2.2 The correct implementation and monitoring of the 28 day AIRAC cycle for significant operational changes, where information shall be published and made available by the AIS unit at least 42 days in advance of the effective date is a crucial step to be achieved in the transition from AIS to AIM. This will support the safety, efficiency and capacity imperatives of the region. The objective is for the aeronautical information changes to reach recipients at least 28 days in advance of the effective date.



Whenever major changes are planned, a publication date of at least 56 days in advance of the effective date should be used. Any changes to aircraft FMS Navigation databases requires considerable lead time before the effective date and typically the cut-off date is day 8 of the 28 day cycle. Any aeronautical information received by the FMS Data Service Providers (e.g. Jeppesen and LIDO) after that date will not be processed for that new cycle and therefore will not be available to the airline END USERs (Dispatch & Pilots).

2.3 The FMS data chain from the aeronautical information originator to the end users is lengthy and often requires time and effort to interpret, verify and correction. The information publications are seldom perfect. Normally, the information must be digitized, if not already done, and then coded for insertion into system databases. In accordance with RTCA DO-200A and EUROCAE ED 76, the FMS Data Service Providers must publish only source data.



2.4 One of the main reasons for AIRAC non-adherence is the lack of awareness and understanding among data originators including AIS and Regulators, of the importance of compliance with the AIRAC cycle dates. Data originators are not sensitized on the time frame required by NavDB Providers and End Users to process the data and the consequences of non-adherence to AIRAC cycle dates.

The issues are -

- Late publication/distribution
- Data released "with immediate effect"
- Last minute postponement or cancellation
- Contradictory information/data
- Ambiguous procedures
- Incomplete information/data

These issues all lead to -

- Data not being loaded in NDB and thus not being available for use
- Significant differences between charts and databases
- Greatly increased risk of error
- Considerable confusion on the flight-deck and with ATC
- Increased workload and delays in the value chain (AIS, NavDB, Flight Dispatchers, Pilots & ATC)

2.5 Other contributing factor to data not being loaded into NDB's is the slow or no response to data queries that could have been avoided with the implementation of an effective quality management system (QMS) and data integrity checking process.

Conclusion

2.6 The established AIRAC cycle provides no room for delays in today's world of electronic navigation data. Compiling and maintaining a world-wide airborne navigation database is a large and complex task for users. The impact of AIRAC non-adherence and a lack of quality management on airline operations are significant. Information that does not reach the NavDB cut-off date it is not included in the next FMS update. Mismatches in data contained in the flight planning, ATC and FMS systems may have safety implications.

2.7 Airline operators may refuse to accept some procedures unless they have been coded in the aircraft FMS. In particularly RNAV/RNP procedures shall not be flown unless they are coded and selectable from the aircraft FMS Navigation database.

2.8 The regional implementation of the ICAO Roadmap for the Transition from AIS to AIM, phases 1 and 2, as a minimum must be expedited to support the improvements required in overall safety as well as capacity and efficiency in the Region.

3. ACTION BY THE MEETING

The meeting is invited to:

3.1 Urge States to:

a) Establish and enforce regulatory requirements for AIRAC adherence and Quality Management;
b) Review AIS processes including SOP/SLA/QA;
c) Investigate the reasons for any delay in the publication of aeronautical information of operational significance; and
d) Agree on necessary follow-up action, in coordination with APIRG and its AIM Sub-Group.

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