ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

SIXTH MEETING OF DIRECTORS GENERAL OF CIVIL AVIATION (DGCA/6)
(Brazzaville, Congo, 2 – 4 November 2016)

Agenda Item 4: Air Navigation Capacity and Efficiency

Aviation System Block Upgrades (ASBU)

(Presented by IATA)

SUMMARY
This Paper presents a proposal for the development of a vision and strategy that will drive implementation of a Unified AFI SKY in the region.
REFRENCE(S): • ICAO Doc 9750 - Global Air Navigation Plan (2016-2031) • ICAO Doc 9854 - Global Air Traffic Management Operational Concept
Related ICAO Strategic Objective(s): • **Safety** : Enhance global Civil Aviation Safety • **Air Navigation Capacity and Efficiency:** Increase capacity and improve efficiency of the global civil aviation system. • **Economic Development of Air Transport**: Foster the development of a sound and economically-viable civil aviation system. • **Environmental Protection**:

1. INTRODUCTION

1.1. Block upgrades describe a way to apply the concepts defined in the ICAO Global Air Navigation Plan (Doc 9750) with the goal of implementing regional performance improvements. It includes the development of technology roadmaps, to ensure that standards are mature and to facilitate the synchronization between air and ground systems, as well as between regions. The ultimate goal is to achieve global interoperability. Safety demands this level of interoperability and harmonization. Safety must be achieved at a reasonable cost with commensurate benefits.

1.2. Aviation System Block Upgrades comprise a suite of capabilities, called modules, each having the essential qualities of:
   a) A clearly-defined measurable operational improvement and success metric;
   b) Necessary equipment and/or systems in aircraft and on ground along with an operational approval or certification plan;
   c) Standards and procedures for both airborne and ground systems; and
   d) A positive business case over a clearly defined period of time.

1.3. In implementing Block upgrades, it is recognized that all module solutions are not required in all airspaces. Benefits attained from such upgrades must be obvious.

2. DISCUSSION

2.1. ICAO launched the Aviation System Block Upgrades initiative to facilitate and progress interoperability, harmonization, and modernization of air transportation worldwide.

2.2. According to the 4th Edition of the GANP, ASBU Block upgrades are organized in five-year time increments starting 2013 as follows:
   a) Block 0: available now
   b) Block 1: available to be deployed globally from 2018
   c) Block 2: available to be deployed globally from 2023
   d) Block 3: available to be deployed globally from 2028

2.3. AFI ASBU B0 Priorities were agreed by Users and ICAO ESAF/WACAF as follows;
   a) Approach Procedures with vertical guidance (B0-APTA)
   b) Airport Operations through Airport-CDM (B0-ACDM)
   c) Increased Interoperability, Efficiency and Capacity (B0-FICE)
   d) Digital Aeronautical Information Management (B0-DAIM)
   e) MET information and operational efficiency and safety (B0-AMET)
   f) Enhanced En-Route Trajectories (B0-FRTO)
   g) ACAS Improvements (B0-ACAS)
   h) Improved Flexibility and Efficiency through CDO (B0-CDO)
   i) Improved Flexibility and Efficiency through CCO (B0-CCO)

2.4. PBN, CDO and CCO were listed by Users as of the highest priority as they are the main enablers for Block 0 operational improvements. As for B1, B2 and B3, ensure the development of sound and realistic business cases before embarking on any commitment for investment.

2.5. **Appendix A** is the update received from our members on implementation of ASBU in AFI Region.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Take note of the ASBU update (**Appendix A**).

b) Users are concerned about the slow pace of implementation of ASBU B0 modules;

1) Approach Procedures with vertical guidance (B0-APTA)
2) Increased Interoperability, Efficiency and Capacity (B0-FICE)
3) Digital Aeronautical Information Management (B0-DATM)
4) MET information and operational efficiency and safety (B0-AMET)

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