



WORKING PAPER

TWELFTH AIR NAVIGATION CONFERENCE

Montréal, 19 to 30 November 2012

Agenda Item 6: Future direction

6.1: Implementation plans and methodologies

**THE IMPORTANCE OF CIVIL AVIATION AUTHORITIES INVOLVEMENT IN THE
IMPLEMENTATION OF THE GLOBAL AIR NAVIGATION PLAN**

(Presented by the United States)

EXECUTIVE SUMMARY

Civil Aviation Authorities' personnel play an important role in support of safety assurance through the identification and mitigation of specific and systemic safety risks. Further, given their responsibilities and knowledge concerning operational approvals, participation of regulatory personnel is critical to successful planning and implementation of performance-based navigation and other applications of aircraft technology. In order to properly accomplish these duties, regulatory organizations need to ensure proper investments are made to:

- a) adequately train their personnel using practical application scenarios of aviation system block upgrade technologies and policies;
- b) participate during implementation planning efforts; and
- c) provide necessary oversight and assistance with ongoing operations.

Action: The Conference is invited to agree to the recommendation in paragraph 3.

1. INTRODUCTION

1.1 Implementation of performance-based navigation (PBN) across all phases of flight has improved operational safety and efficiency worldwide. However, progress with global implementation of PBN has been hampered by the difficulties of Civil Aviation Authorities (CAAs) concerning operational approvals and continuing oversight.

2. BACKGROUND

2.1 While the potential benefits are substantial, significant challenges remain for continued implementation of PBN. A collaborative decision-making process and coordination among regulatory authorities, operators, service providers, and other stakeholders are essential to successful PBN

implementations, whether a limited-scale trial or one broader in scope, as is the accrual of the requisite knowledge by representatives of each expertise.

2.2 CAA personnel must receive a suitable amount of training to provide foundational and specialized knowledge for production of draft regulations, guidance materials, and approval mechanisms. Similar education and training is also necessary to properly evaluate and, as appropriate, approve various PBN (area navigation (RNAV) and required navigation performance (RNP)) operations. Training can be a blended approach to ensure regulatory and policy education as well as practical application utilizing focused scenario-based exercises.

2.3 With a growing emphasis on implementation, the difficulties encountered by CAAs have been identified in various forums. As a result, a number of planning and implementation regional groups (PIRGs), PBN Task Force subgroups and at least one cooperative development of operational safety and continuing airworthiness programme (COSCAP) office have worked on potential solutions. In February 2012, ICAO formed the PBN Operational Approval Tiger Team (PBN OATT) to leverage these efforts through development of an ICAO PBN Operational Approval Manual. It is anticipated that publication of this document will further enhance harmonization and improve regulator capabilities regarding PBN. Regulatory training could be utilized to ensure that the PBN OATT provides sufficient detail for successful implementation as well as dissemination to regulators and policy entities.

2.4 The Global Air Navigation Plan calls attention to the importance of addressing regulatory requirements and achieving an interoperable global system. Given experience over the last decade, it is reasonable to expect similar challenges to implementation of aviation system block upgrade (ASBU) applications if lessons learned from PBN are not employed.

3. RECOMMENDATIONS

3.1 The Conference is invited to:

- a) using efforts of the PBN OATT as one model, consider mechanisms to improve Member States' abilities to accomplish regulatory responsibilities as related to implementation of the GANP, as well as how regional organizations and "Champion States" might assist in this regard through mechanisms involving training development and delivery;
- b) consider how the continuous monitoring approach (CMA) maps to the evaluation of Member States' safety oversight capabilities concerning ASBUs;
- c) ensure operational approval considerations are addressed during development of ICAO guidance materials in support of the ASBUs; and
- d) urge States to consider the value of collaboration with other stakeholders by involving regulatory personnel during all stages of implementation of ASBU applications, as well as complementary investments in the recruitment, selection, and training of aviation professionals to perform these roles.