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TECHNICAL COMMISSION

Agenda Item 35: Air Navigation — Implementation Support

REGIONAL PRIORITIES AND TARGETS FOR AIR NAVIGATION

(Presented by the Council of ICAO)

EXECUTIVE SUMMARY

The *Global Air Navigation Plan* (GANP, Doc 9750), while providing the strategic direction for the technical work programme of ICAO in the air navigation field, serves as planning and implementation guidance for planning and implementation regional groups (PIRGs), States, service providers, airspace users and other stakeholders. On 29 May 2013, the Council (199-5) approved the fourth edition of the GANP which contains the new Aviation Systems Block Upgrades (ASBU) framework. As PIRGs are progressing with regional performance improvements through implementation of relevant ASBU Block 0 Modules, this paper presents an approach to prioritization and methodology to assist in determining regional priorities and targets for air navigation.

Action: The Assembly is invited to call on the Council to instruct PIRGs to:

a) establish, consistent with Recommendations 6/1 and 6/12 of the Twelfth Air Navigation Conference, priorities and targets for air navigation by May 2014;
b) share successful initiatives among one another;
c) utilize specific interface groups, where required, for addressing the harmonization of air navigation plans in adjacent areas of PIRGs; and
d) develop a coordination mechanism in each region between the PIRGs and regional aviation safety groups (RASGs) to ensure consistency of action and avoid overlap.

Strategic Objectives:	This working paper relates to the Safety and the Environmental Protection and Sustainable Development of Air Transport Strategic Objectives.
Financial implications:	The activities referred to in this paper will be undertaken subject to the resources available in the 2014-2016 Regular Programme Budget and/or from extra budgetary contributions.
References:	Doc 10007, *Report of the Twelfth Air Navigation Conference* (2012) (AN-Conf/12) Doc 9958, *Assembly Resolutions in Force* (as of 8 October 2010) Doc 9883, *Manual on Global Performance of the Air Navigation System* Doc 9750, *Global Air Navigation Plan*

1. INTRODUCTION

1.1 *PIRG mechanism*: The planning and implementation regional groups (PIRGs) were established by the Council with the objective of planning for the development of regional air navigation systems and infrastructure. The six regional groups are: APANPIRG (ASIA/PAC Air Navigation Planning and Implementation Regional Group), APIRG (Africa-Indian Ocean Planning and Implementation Regional Group), EANPG (European Air Navigation Planning Group), GREPECAS (CAR/SAM Planning and Implementation Regional Group), MIDANPIRG (Middle East Air Navigation Planning and Implementation Regional Group), and NAT SPG (North Atlantic Systems Planning Group). This paper discusses how the PIRGs are progressing in determining regional priorities for operational improvements along with corresponding targets for air navigation systems.

2. REGIONAL PRIORITIES AND TARGETS FOR AIR NAVIGATION

2.1 *Prioritization:* To support a globally harmonized air navigation system, ICAO has developed the fourth edition of the GANP to provide clear guidance on the guiding operational targets and supporting technologies, avionics, procedures, standards and regulatory approvals needed to realize them. The GANP additionally establishes a framework for incremental implementations based on the specific operational profiles and traffic densities of each region and State. This is accomplished through the Aviation System Block Upgrades (ASBUs), a consensus-driven framework which forms the basis of the revised GANP.

2.2 Although the GANP has a global perspective, all ASBU modules may not be applicable to all States or regions. Some modules are specialized packages that should be applied where specific operational requirements or corresponding benefits exist. Therefore, implementation priorities for air traffic management (ATM) enhancements will vary between regions as each has different operational environments, traffic volumes, etc. This prioritization exercise could be done by individual States and regionally by the PIRGs. It is expected that a limited number of ASBU modules be essential at a global level and, therefore, may eventually become the subject of ICAO Standards with mandated implementation dates. For other modules, implementation should follow the common methodology that allows flexibility in deployment but, at the same time, ensures global interoperability. The minimum path for ASBUs defines the minimum list of technology choices needed to ensure global interoperability. In the meantime, ICAO will continue to work on guidance material for the categorization of block upgrade modules for implementation priority and provide guidance as necessary to planning and implementation regional groups and States.

2.3 *Methodology:* Guided by the Global Air Navigation Plan, the regional planning process starts by identifying the homogeneous ATM areas, major traffic flows and international aerodromes. A data analysis should lead to the identification of opportunities for operational performance improvement. Modules from the ASBUs would be evaluated to identify which of those modules best provide the needed operational improvements. Depending on the complexity of the module, additional planning steps may need to be undertaken including financing and training needs. Finally, regional plans would be developed for the deployment of modules by drawing on supporting technology requirements. This is an iterative planning process which may require repeating several steps until a final plan with specific regional targets is in place. The planning methodology requires full involvement of States, service providers, airspace users and other stakeholders, thus ensuring commitment by all for implementation. This approach would facilitate the response to Recommendation 6/1 of AN-Conf/12 that calls on States and PIRGs to finalize the alignment of regional air navigation plans with the fourth edition of the Global Air Navigation Plan by May 2014.

2.4 *PIRG-RASG GCM:* A Planning and Implementation Regional Groups (PIRGs) and Regional Aviation Safety Groups (RASGs) Global Coordination Meeting (GCM) was held in Montreal, on 19 March 2013, under the Chairmanship of the President of the ICAO Council. The main objective of the meeting was to exchange views on the readiness and ability of the PIRGs and RASGs to set priorities and targets in line with the new versions of the GANP and the Global Aviation Safety Plan (GASP). A secondary objective was to share successful initiatives of each of the PIRGs and RASGs to ensure the best possible synergy. The outcome of the meeting includes:

a) agreement on establishing regional priorities and targets for air navigation by May 2014 consistent with the GANP/ASBU framework;

b) agreement on the need to measure performance improvements to help demonstrate their positive impact on the environment;

c) endorsement of the envisioned regional performance dashboard prototype and envisioned determination of an initial set of indicators and metrics for air navigation;

d) confirmation of the need for a coordination mechanism in each region between the RASG and PIRG to ensure consistency of action and avoid overlap;

e) encouragement of the sharing of successful initiatives among one another;

f) identification of the need for training on how to determine priorities for the aviation system block upgrades; and

g) agreement on the utilization of specific interface groups, where required, for addressing the harmonization of air navigation plans in adjacent areas of PIRGs.

2.5 A decision was made to convene the PIRG-RASG global coordination meeting in this format once every two years with the next one planned for spring 2015.

3. CONCLUSION

3.1 The ASBUs described in the fourth edition of the GANP (Doc 9750) are designed to achieve harmonization and interoperability leading to improvements in the provision of air navigation services worldwide. Although the ASBU modules provide the basis for a globally interoperable system, not all of the modules are intended to be implemented everywhere nor at the same time. Accordingly, a means of prioritizing the operational improvements through ASBU modules along with corresponding targets is necessary to assist PIRGs and States in determining which modules to implement, under what circumstances and timeframes.

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