International Civil Aviation Organization

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP

Second Meeting (ANSIG/2)
(Cairo, Egypt, 6 – 8 December 2016)

Agenda Item 3:   **Air Navigation Global and Regional Developments**

GANP 2016 UPDATES

(Presented by the Secretariat)

SUMMARY
This paper provides updates on the fifth edition of the Global Air Navigation Plan (GANP) endorsed by the ICAO Assembly 39.
Action by the meeting is at paragraph 3.

REFERENCES
- Assembly 39 - Fifth Edition of the Global Air Navigation Plan (Doc 9750)

1.   INTRODUCTION

1.1   The *Global Air Navigation Plan* (GANP, Doc 9750), while providing the strategic direction for the technical work programme of ICAO in the field of global air navigation, also serves as guidance for States, the planning and implementation regional groups (PIRGs), service providers, airspace users and industry stakeholders.

1.2   The GANP was updated with a view to provide further guidance material towards implementation and follow assembly triennial cycles. The ASBU modules were also updated to take into account recent technological developments and standards' availability. But the global structure of the two documents was maintained to provide the necessary stability of such an overarching framework. The sixth edition of GANP (2019), at the beginning of Block 1, might undergo major changes.

1.3   The fifth edition of the GANP was endorsed by the ICAO Assembly 39 (Montréal, Canada, 27 September-7 October 2016) through the Assembly Resolution A39-12.

2.   DISCUSSION

GANP 2016 Update

2.1   The fifth edition of the GANP, while maintaining the stability of the document, includes a new organization of the aviation system block upgrades (ASBUs) in non-overlapping six-year increments starting in year 2013 and continuing through 2031 and beyond. These will allow mid-increment checks by the Assembly. In addition, this fifth edition also emphasizes the application of a performance-based approach when planning the implementation of air navigation operational

improvements. Applicable at global, regional and local levels, a performance-based approach is results oriented, helping decision makers set priorities and determine appropriate trade-offs that support optimum resource allocation while maintaining an acceptable level of safety performance and promoting transparency and accountability among stakeholders.

2.2   An initial consultation with States, through ICAO Regional Offices, showed that after the important effort of aligning all local and regional plans with the fourth edition, stability was a main requisite for updating the GANP. Thus, the fifth edition of the GANP focuses on improving the consistency of presentation, introducing already planned additions and updating the Block 0 and Block 1 modules of the ASBU document.

2.3   One important change was made to the periodicity of the ASBU modules. It was found necessary to map the three-year ICAO Assembly cycle and the two-year ICAO amendment cycle with a six-year cycle for the modules. Therefore Block 0 is proposed to cover the period 2013-2018, Block 1 to cover 2019-2024, Block 2 to cover 2025-2030 and Block 3 to start in the year 2031.

2.4   Furthermore, the ASBU document and all technical roadmaps in the GANP were updated. Each of the roadmaps was assigned responsibility for a set of modules. The Air Traffic Management Requirements and Performance Panel (ATMRPP) played the role of global architect and reviewed the document last to ensure consistency.

2.5   As a follow up action to the AN-Conf/12 recommendations and/or requests from States, some new materials were added to GANP; introduction of a performance-based approach for the ASBUs, financial and coordination aspects of implementation, notion of minimum path, documentation for the ASBUs and standardization roadmap, global ATM logical architecture. These additions do not change the ASBU philosophy and would assist in the understanding, planning and implementation of the Modules.

2.6   ASBU implementation is to be realized through tailored regional work programmes based on specific operational needs. ICAO's PIRGs design these work programmes first by identifying the operational characteristics of their homogeneous air traffic management (ATM) areas, major traffic flows and major international aerodromes. Analysis of this operational data identifies performance improvement opportunities and ASBU modules are then evaluated to identify which of them best delivers the needed operational improvements.

2.7   Priorities are defined by States and/or regionally by the PIRGs which are including their plans for ASBU implementation in Volume III of the eANP. eANP Volume III allows more dynamic and flexible updates to the regional plans allowing them to adapt to the changing regional operational requirements of airspace users and service providers.

2.8   Once operational analyses and resulting implementations have been completed, the next step calls for air navigation performance monitoring through an established measurement and reporting strategy. During an initial phase, at the regional level, the implementation status will be depicted using dynamic maps and charts on the ICAO website. Analysis of reporting data will be carried out collaboratively between States, PIRGs and ICAO. Results will then be published in the proposed Regional Performance Dashboards (web-based) and in an annual global air navigation report.

2.9   The fifth edition of GANP as well as ASBU Document and other related ASBU materials could be found on the GANP Webpage at:

http://www.icao.int/airnavigation/Pages/GANP-Resources.aspx

Future update of the GANP

2.10   The ICAO Air Navigation Commission will review the GANP as part of the triennial work programme, reporting to the Council one year in advance of each ICAO Assembly. The ANC report will provide a review of global progress made in achieving the GANP objectives and will consider lessons learned by States, industry and PIRGs. Moreover, the ANC report will consider possible changes in future aviation needs, the air navigation context and other influencing factors, proposing suitable adjustments to the GANP to accommodate these eventualities.

2.11   The sixth edition of GANP in 2019, at the beginning of Block 1, will undergo deeper updates to provide more up to date planning timelines, technology adjustments and guidance for easier implementation. The comments provided by States during the final review of the fifth edition will be considered. The work on the next triennium on the minimum path, the performance-based approach for implementation, the ATM logical architecture and the standardization roadmap will reinforce the GANP as a one-stop, comprehensive planning tool for all States.

2.12   During the State consultation for the fifth edition of the GANP, a number of issues were identified to be further developed in the sixth edition (2019):

a) definition of agreed global performance objectives of the GANP will assist States to align their respective plans on these objectives. This will be supported by the development of underlying concepts of operation;

b) development of the Minimum Path concept, as well as its concretization in regional and national implementation plans, will contribute to a minimum level of interoperability worldwide;

c) recognition of the importance of technology roadmaps to provide certainty with the Global Plan, their further structuration with better defined targets and convergence path should strongly support realistic and harmonious implementation; and

d) reinforcement of the link between the GASP and the GANP to enhance in the GANP the need for safety assessment and human performance impact assessment during implementation and in the GASP to emphasize the notion of operational safety and to identify the GANP modules which support identified GASP safety priorities. 3.4 Comments from States on search and rescue as well as recent development of the Global Aeronautical Distress and Safety System (GADSS) concept could also lead to some additions to the current identified threads of the GANP.

2.13   Prior to the changes to the Council, the updates will be circulated to States for consultation. Following approval by the Council, the updated GANP will then be submitted for endorsement by ICAO Member States at the next ICAO Assembly.

3.   **ACTION BY THE MEETING**

3.1   The meeting is invited to:

a) note the information provided; and

b) review and update timelines of the MID Air Navigation Strategy (MID Doc 002) to be in line with the fifth edition of GANP.

GANP 2016 – Main Changes
(4th edition vs. 5th edition)

- Maintain stability
- Changed periodicity of Blocks
- Improved consistency of Block naming, description and presentation
- Creation of GANP webpage

(http://www.icao.int/airnavigation/Pages/GANP-Resources.aspx)

- Addition of new topics
  - Notion of minimum path
  - Performance-based approach
  - ATM logical architecture
  - Financial aspects (MDWG-ASBU)

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