



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 32: Air Navigation — Policy

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**A COMPREHENSIVE STRATEGY FOR AIR NAVIGATION:
ENDORSEMENT OF THE GLOBAL AIR NAVIGATION PLAN**

(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 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. On 29 May 2013, the Council (C-DEC 199/5) approved the fourth edition of the GANP at Appendix A to this working paper. Also, a revised Assembly Resolution on global plans is presented in Appendix B hereto.

Action: The Assembly is invited to:

- a) endorse the fourth edition of the Global Air Navigation Plan (Doc 9750), as presented in Appendix A of the working paper, as the strategic direction for global air navigation;
- b) request States, PIRGs, service providers and airspace users to establish priorities and targets consistent with the GANP objectives as well as the operational needs of each region; and
- a) adopt Appendix B of the proposed Assembly Resolution as presented in Appendix B of this working paper.

<i>Strategic Objectives:</i>	This working paper relates to the Safety, Environmental Protection and Sustainable Development of Air Transport Strategic Objectives.
<i>Financial implications:</i>	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.
<i>References:</i>	Doc 10007, <i>Report of the Twelfth Air Navigation Conference</i> (2012) Doc 9958, <i>Assembly Resolutions in Force</i> (as of 8 October 2010) Doc 9750, <i>Global Air Navigation Plan</i> (Fourth edition) <i>Working Document for the Aviation System Block Upgrades - the Framework for Global Harmonization</i> <i>Information Papers on Technology Roadmaps – ICAO Twelfth Air Navigation Conference</i>

1. INTRODUCTION

1.1 An effective global ATM system achieves interoperability and seamlessness across all regions for all users during all phases of flight. It meets agreed levels of safety, provides for optimum economic operations, is environmentally sustainable and respects national security requirements. ICAO's guiding vision in this regard is established in the *Global Air Traffic Management Operational Concept* (Doc 9854), while the GANP serves as the supporting strategic planning document. Based on comprehensive consultation by ICAO of State and industry stakeholders and review by the Twelfth Air Navigation Conference (AN-Conf/12), the GANP has been restructured and revised and will be further supported by dedicated tools designed to assist States, ICAO's planning and implementation regional groups (PIRGs), service providers, airspace users and industry stakeholders.

2. FOURTH EDITION OF GANP

2.1 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 establishes a framework for incremental implementations based on the specific operational profiles and traffic densities of each State. This is accomplished through the aviation system block upgrades (ASBUs) methodology which forms the basis of the revised GANP.

2.2 AN-Conf/12, held in November 2012, reviewed the fourth edition of the GANP and noted that it builds on past planning documents and provides a global planning framework including a timeline for which future improvements are expected to be available for implementation by States, and PIRGs in accordance with their operational needs. In addition, it identifies the need for the development of standards and recommended practices, regulatory requirements, procedures and technology associated with the ASBUs.

2.3 The ASBU Modules are supplemented by communications, navigation, surveillance (CNS), avionics and information management roadmaps. The AN-Conf/12 agreed that the ASBU modules and associated technology roadmaps were an integral part of the GANP and a valuable implementation tool kit and that the policy and associated principles the GANP presents would be fundamental to successful global long-term air navigation planning. The revised GANP represents a rolling, fifteen-year strategic planning methodology which leverages existing technologies and anticipates future developments based on State/Industry agreed operational objectives. This will enable sound investment strategies and help to generate the required commitment to the GANP from States, equipment manufacturers, airspace users and service providers.

2.4 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. More information on this subject is presented in a separate paper (A38-WP/88), which describes how the PIRGs, on the basis of the GANP, are currently progressing in this regard.

2.5 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.

2.6 The Council of ICAO has approved the fourth edition of the GANP and its supporting documentation, presented in Appendix A to this working paper.

3. UPDATES TO GANP

3.1 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. Prior to being presented to the Council, proposed updates will be circulated to Member 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.

4. ASSEMBLY RESOLUTION

4.1 As the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan will form the global strategic directions in the safety and air navigation fields, respectively, a single Assembly Resolution 34/xx: *ICAO Global planning for safety and air navigation* is proposed to cover both plans. The new resolution comprises consolidated updates to, and supersedes, the current resolution on GASP (A37-4: *ICAO Global planning for safety*) as well as the resolution on GANP (A37-12: *ICAO Global planning for sustainability*). The full text of the proposed resolution is presented in Appendix B hereto.

4.2 In accordance with Assembly Resolution A37-12, the fourth edition of the GANP establishes a framework that accommodates the impact of States' air navigation modernization plans on the global system and facilitates action to ensure global harmonization, including the establishment of priorities that drive the technical work programme of the organization over each triennium.

4.3 The relevant GANP-specific information is presented in Appendix B of the proposed consolidated resolution 34/xx: *ICAO Global planning for safety and air navigation*. Therefore, when reviewing the proposal, and for the purposes of this paper, please refer only to Appendix B of the resolution dealing specifically with GANP. The preamble to the resolution and Appendix A dealing specifically with GASP are discussed in A38-WP/92 under agenda items 32, 33, 34, 35 and 36.

5. CONCLUSION

5.1 The GANP offers a long-term vision that will provide confidence to ICAO, PIRGs, States, service providers, airspace users and industry stakeholders in developing and implementing air navigation infrastructure and avionics advances leading to full global harmonization of the ATM system.

APPENDIX A

GLOBAL AIR NAVIGATION PLAN

available at http://www.icao.int/Meetings/a38/Documents/GANP_en.pdf

APPENDIX B

DRAFT RESOLUTION TO SUPERSEDE RESOLUTION A37-4 AND TO INCORPORATE AND SUPERSEDE RESOLUTION A37-12

A37-4: ICAO global planning for safety
34/xx: ICAO Global planning for safety and air navigation

Whereas ICAO strives to achieve the goal of a safe and orderly development of civil aviation through cooperation among Contracting Member States and other stakeholders;

Whereas to realize this goal, the Organization has established Strategic Objectives, including objectives for in the fields of, inter alia, safety and for capacity and efficiency;

Recognizing the importance of a global frameworks to support the Strategic Objectives of ICAO;

Recognizing the importance to of effective implementation of regional and national plans and initiatives based on the global frameworks for effective implementation; and

Recognizing that further progress in improving the global safety, capacity and efficiency of civil aviation is best achieved through a cooperative, collaborative and coordinated approach in partnership with all stakeholders under the leadership of ICAO; and

Noting the approval on 30 July 2013 by the Council of the first edition of the Global Aviation Safety Plan (GASP) and on 29 May 2013 of the fourth edition of the Global Air Navigation Plan (GANP);

The Assembly:

1. *Endorses* the first edition of the Global Aviation Safety Plan (GASP) and the fourth edition of the Global Air Navigation Plan (GANP) as the global strategic directions for safety and air navigation, respectively;
- 1.2. *Resolves* that ICAO shall implement and keep current the GASP and the GANP to support the relevant Strategic Objectives of the Organization;
- 2.3. *Resolves* that these global plans shall be implemented and kept current in close cooperation and coordination with all concerned stakeholders;
- 3.4. *Resolves* that these global plans shall provide the frameworks in which regional, subregional and national implementation plans will be developed and implemented, thus ensuring harmonization and coordination of efforts aimed at improving international civil aviation safety, capacity and efficiency;
5. *Urges* Member States to develop sustainable solutions to fully exercise their safety oversight and air navigation responsibilities which can be achieved by sharing resources, utilizing internal and/or external resources, such as regional and sub-regional organizations and the expertise of other States;

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6. *Urges* Member States to demonstrate the political will necessary for taking remedial actions to address safety and air navigation deficiencies, including those identified by Universal Safety Oversight Audit Programme (USOAP), through the application of GASP and GANP objectives and the ICAO regional planning process;

7. *Urges* Member States, the industry and financing institutions to provide the needed support for the coordinated implementation of the GASP and GANP, avoiding duplication of efforts;

4.8. *Calls upon* States and *invites* other stakeholders to cooperate in the development and implementation of regional, subregional and national plans based on the frameworks of the GASP and GANP;

5.9. *Instructs* the Council to provide a report on the implementation and evolution of the GASP and GANP to future regular sessions of the Assembly;

6.10. *Instructs* the Secretary General to promote, make available and effectively communicate the GANP, GASP and its associated Global Aviation Safety Roadmap (GASR) GASP and the GANP Global Plans; and

7.11. *Declares* that this Assembly resolution supersedes Assembly Resolution A36-7 A37-4 on the ICAO Global planning for Aviation Safety Plan (GASP) and Assembly Resolution A37-12 on ICAO Global planning for sustainability.

APPENDIX A**Global Aviation Safety Plan (GASP)**

Reaffirming that the primary objective of the Organization continues to be the improvement of safety and an associated reduction in the number of accidents and related fatalities within the international civil aviation system;

Recognizing that safety is a responsibility involving ICAO, Contracting Member States and all other stakeholders;

Recognizing the safety benefits that can be drawn from partnerships between States and industry; such as the Commercial Aviation Safety Team (CAST), the European Commercial Aviation Safety Team Strategic Safety Initiative (ESSIECAST), and the Regional Aviation Safety Groups (RASGs) Group Pan-American (RASG-PA) and the African and Indian Ocean Islands Safety Enhancement Team (ASET);

Recognizing that the High-level Safety Conference (2010) reaffirmed the need for the ICAO safety framework to continuously evolve to ensure its sustained effectiveness and efficiency in the changing regulatory, economic and technical environment;

Noting that the expected increase in international civil aviation traffic will result in an increasing number of aircraft accidents unless the accident rate is reduced;

Realizing Recognizing the need to maintain the public's confidence in air transport through the dissemination of safety information by providing access to relevant safety information;

Recognizing that a proactive approach in which a strategy is established to set priorities and targets to manage safety risks ~~are identified and managed~~ is of paramount importance to the achievement of further improvements in aviation safety;

Recognizing that regional aviation safety groups ~~should have been~~ implemented by ICAO, taking into account the needs of the various regions and building on the already existing structures and forms of cooperation;

~~*Noting with satisfaction* the Global Aviation Safety Roadmap as developed by key industry partners acting as the Industry Safety Strategy Group (ISSG) with ICAO and which forms the basis for the Global Aviation Safety Plan (GASP);~~

Noting the intent to ~~continuously~~ apply the safety management principles in the GASP as a tool to enhance safety by focusing action where it is most needed; and

Noting the need to assist Member States in implementing safety management principles and mitigate risks on identified operational issues;

~~*Noting* the unified strategy established by ICAO to resolve safety related deficiencies;~~

The Assembly:

1. *Stresses* the need for continuous improvement of aviation safety through a reduction in the number of accidents and related fatalities in air transport operations in all parts of the world, particularly in States where safety records are significantly worse than the worldwide average;

2. *Stresses* that limited resources of the international aviation community should be used ~~in the first place~~ strategically to support States or regions whose safety performance oversight maturity is not at an acceptable level and where political willingness exists to improve safety oversight functions;

3. *Urges* ~~Contracting~~ Member States to support the Global Aviation Safety Plan (GASP) objectives by: implementing the safety initiatives outlined therein.

a) ~~implementing the State Safety Programme (SSP);~~

b) ~~expeditiously implementing safety management systems across the aviation industry to complement the existing regulatory framework;~~

c) ~~sharing operational safety intelligence among States and relevant aviation stakeholders;~~

d) ~~ensuring that the travelling public has access to easily understandable safety related information to enable informed decisions;~~

e) ~~creating an environment in which the reporting and sharing of information is encouraged and facilitated and in which remedial action is undertaken in a timely fashion when deficiencies are reported; and~~

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~~f) reporting accident and incident data as required to ICAO;~~

4. ~~Urges Contracting Member States, regional safety oversight organizations (RSOOs), regional aviation safety groups (RASGs) and international organizations concerned to work with all stakeholders to implement set priorities and targets consistent with the GASP objectives and GASP methodology objectives and to implement these methodologies with the view to reduce the number and rate of aircraft accidents;~~

~~5. Urges Contracting States to demonstrate the political will necessary for taking remedial actions to address deficiencies including those identified by Universal Safety Oversight Audit Programme (USOAP) and through the application of GASP objectives and the ICAO regional planning process;~~

5. Urges States to fully exercise safety oversight of their operators in full compliance with applicable Standards and Recommended Practices (SARPs), and assure themselves that every foreign operators flying into their territory receives adequate oversight from their its own State and take appropriate action when necessary to preserve safety; and

6. Urges ICAO to complete the development of safety roadmaps in support of the GASP by the end of 2014 to assist in the risk mitigation of operational issues identified.

~~7. Urges States to develop sustainable safety solutions to fully exercise their safety oversight responsibilities. This can be achieved by sharing resources, utilizing internal and/or external resources, such as regional and subregional safety oversight organizations and the expertise of other States; and~~

~~8. Urges Contracting States, the industry and financing institutions to provide the needed support for the coordinated implementation of the ICAO Global Aviation Safety Plan, avoiding duplication of efforts.~~

APPENDIX B**Global Air Navigation Plan (GANP)****A37-12: ICAO Global Planning for sustainability**

Whereas the enhancement of the safety, capacity and efficiency of aviation operations is a key element of the ICAO Strategic Objectives;

Having adopted Resolution ~~A35-15~~A37-15, a consolidated statement of continuing ICAO policies and associated practices related to a global air traffic management (ATM) system and communications, navigation and surveillance/air traffic management (CNS/ATM) systems specifically to air navigation;

~~Noting the acceptance of 30 November 2006 by the Council of the new version of the Global Air Navigation Plan (GANP);~~

Recognizing the importance of GANP as an operational strategy and part of the basket of measures for environmental protection; and

Recognizing that many States and regions are developing new generation plans for their own air navigation modernization;

The Assembly:

1. *Instructs* the Council to ~~amend~~ use the guidance in the Global Air Navigation Plan (GANP) to ~~include a framework that will allow ICAO to easily analyze the impact of States' air navigation modernization plans on the global system and then take appropriate action as needed to ensure global harmonization~~ develop and prioritize the technical work programme of ICAO in the field of air navigation;
2. *Calls* upon States, planning and implementation regional groups (PIRGs), and the aviation industry to utilize the guidance provided in the GANP for planning and implementation activities which establish priorities and targets consistent with globally-harmonized objectives, taking into account operational needs;
2. ~~Urges Contracting States, industry and financing institutions to provide the necessary support for coordinated implementation of the GANP, avoiding duplication of effort;~~
3. *Calls* upon States to take into consideration the GANP guidelines as an efficient operational measure for environmental protection;
4. *Calls* upon States, PIRGs, and the aviation industry to provide timely information to ICAO regarding the implementation status of the GANP, including the lessons learned from the implementation of its provisions;
5. *Invites* PIRGs to use ICAO standardized tools to monitor and, in collaboration with ICAO, analyse the implementation and performance status of air navigation systems;
6. *Instructs* the Council to publish the results of the analysis on the regional performance dashboards and in an annual global air navigation report including, as a minimum, the key implementation priorities and accrued environmental benefits estimated using CAEP-recognized methods; and
7. *Urges* States that are developing new generation plans for their own air navigation modernization to ~~share their plans in a timely manner~~ coordinate with ICAO and align their plans so as to ensure global compatibility and harmonization.; ~~and~~
5. ~~Instructs the Council to ensure that the GANP is continuously maintained up to date in light of further operational and technical developments, in close collaboration with States and other stakeholders; and~~
6. ~~Instructs the Council to organize a Twelfth Air Navigation Conference in 2012, to develop longer term planning for ICAO based on an update of the GANP.~~

— END —