International Civil Aviation Organization
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE
Twentieth Meeting of Directors of Civil Aviation of the Eastern Caribbean (20th E/CAR DCA)
Miami, Florida, United States 4 to 7 December 2006

Agenda Item 3:   Air Navigation Matters
                                3.6.   **Other Air Navigation Issues**

**REPORT ON THE OUTCOME OF, AND FOLLOW-UP TO, THE FIFTH
MEETING OF THE ALLPIRG/ADVISORY GROUP (ALLPIRG/5)**

(Presented by the Secretariat)

SUMMARY

This paper reports on the fifth meeting of the ALLPIRG/Advisory Group, the membership of which comprises a wide range of CNS/ATM implementation partners. The Meeting agreed to eighteen conclusions which call for follow-up actions to be taken by various combinations from the ALLPIRG membership. These proposed actions, as presented by the Secretary General in State Letter Ref.: M 711 ‑ 06/62 dated 18 August 2006 (Appendix to this working paper), are presented with a view to seeking confirmation by the Council that ICAO will make appropriate contributions to these tasks.

Action by the Meeting is in paragraph 4.

REFERENCES

  Doc 7300, Regional Supplementary Procedures
  *   ALLPIRG/5 Report

This working paper relates to Strategic Objectives A, B, C and D

∗Principal references

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1.   **Introduction**

1.1   This paper reports on the fifth meeting of the ALLPIRG/Advisory Group (ALLPIRG/5), which was held at ICAO Headquarters in Montreal from 23 to 24 March 2006 under the chairmanship of the President of the Council of ICAO. It was attended by one hundred participants from six planning and implementation regional groups (PIRGs), five global and regional service providers, four international organizations and fifty-one observers.

1.2   One of the main roles of ALLPIRG is to provide advice to the ICAO Council on CNS/ATM Systems implementation matters leading to achieving a global air traffic management (ATM) system, and the ALLPIRG/5 Report, constitutes the Group's contribution in that regard. A summary of the ALLPIRG/5 Report is presented in Part I of this working paper, for ease of reference. The composition and role of ALLPIRG, however, require that its work be followed up differently from that of a typical PIRG, and this issue and its consequences are discussed in Part II of the paper.

2.   **PART I – SUMMARY OF THE ALLPIRG/5 REPORT**

2.1   The Meeting worked with the agenda, which was drawn up in line with the terms of reference of ALLPIRG, as established by the Council. The Meeting developed eighteen conclusions, all of which are cross-referenced in the following paragraphs, which summarize the report.

2.2   **Agenda Item 1: Review of follow-up actions on the ALLPIRG/4 Report**

2.2.1   The Meeting noted the actions taken by the Air Navigation Commission and the Council on the report of its previous meeting. The Meeting also reviewed the follow-up actions on the conclusions reached during the ALLPIRG/4 Meeting noting that, in many cases, action had already been completed.

2.3   **Agenda Item 2: Global Air Navigation Plan**

Framework for Global Planning

2.3.1   The Meeting received a comprehensive presentation on the draft second amendment of the Global Air Navigation Plan covering past, present and future work associated with achieving a global ATM system. The Meeting was supportive of the revised Global Plan and the new approach to planning and implementation. However, a few issues were raised, and the Meeting requested that the following be addressed by the Secretariat when finalizing the revised Global Plan: a) the establishment of a mechanism to ensure integration of the Global Plan into the regional plans; b) the overall planning and implementation processes kept as simple as possible; c) ICAO Headquarters to ensure maximum transfer of knowledge; d) aircraft operations integrated into relevant initiatives; e) the performance framework finalized so that partners have a better understanding of how to meet performance objectives; and f) safety is adequately addressed in the Global Plan Initiatives (GPIs). The Meeting agreed that ICAO, in support of the Global Plan, should conduct a series of workshops at the Regional Offices dealing with the integration of the revised planning processes and GPIs into the current planning framework, and the utilization of the planning tools and methodologies (Conclusion 5/1 refers). The Meeting recognized that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, provide an effective architecture for achieving a Global ATM system. Concluding discussions on the Global Plan, the Meeting agreed on an approach to the implementation of GPIs that includes review at each PIRG meeting as well as the progress achieved and challenges identified in the implementation of GPIs using a common template (Conclusion 5/2 refers).

Role of PIRGs

2.3.2   As a follow-up to the observation made by the Council on the need to review the format and method of processing the reports of the Commission to the Council as well as the terms of reference of the PIRGs, the Meeting received a progress report on the work accomplished on the subject to date. The Meeting, in discussing the role of PIRGs, observed that, as the Strategic Objectives of ICAO are applicable to the world civil aviation community, any revision to the terms of reference of PIRGs should be related to these Strategic Objectives and not to the Business Plan of ICAO. The Meeting requested ICAO to consult the Chairmen and Secretaries of all PIRGs in finalizing the terms of reference of all the PIRGs (Paragraph 2.2.3 of the meeting report refers).

Business case model

2.3.3   Noting the Business case model developed by ICAO for the implementation of CNS/ATM Systems, the Meeting acknowledged its value and called on ICAO to conduct a series of regional training workshops (Conclusion 5/3 refers) and also establish a network of experts on cost-effectiveness, cost-benefit analyses and business cases in order to share expertise and to provide assistance to the Regional Offices (Conclusion 5/4 refers).

Online searchable ANP database

2.3.4   Continuing discussions on the Global Plan, the Meeting was presented with a live demonstration of on-line searchable air navigation plan (ANP) database using the ICAO geographic information system (GIS) portal. The Meeting noted with satisfaction that the database and services, made available through the portal, would improve the efficiency and provide conditions for electronic updates and timely provision of up-to-date Global ANP information to all users. Consequently, this will ensure the currency, coordination and implementation of regional air navigation systems and contribute to the further development of ANPs at the national, regional, interregional and global levels (Conclusion 5/5 refers). The Meeting felt that, in the development of planning tools and services, ICAO should accommodate requirements established by the Regional Offices, as well as to take into account similar tools developed by other organizations such as EUROCONTROL (Conclusion 5/6 refers).

Environmental benefits of CNS/ATM Systems

2.3.5   The Meeting was apprised of an update on the work of the ICAO Committee on Aviation Environmental Protection (CAEP) and on methodologies for the assessment of the environmental benefits of CNS/ATM Systems at the global and regional levels. The Meeting noted that the CO_2 conversion factor, as provided by CAEP, would be useful in the analysis of environmental benefits of implementing CNS/ATM Systems (Conclusion 5/7 refers). The Meeting confirmed that PIRGs and States should establish a global consolidated, prioritized list of routes and terminal area (TMA) improvements in close coordination with airspace users (Conclusion 5/8 refers) and employ area navigation in all TMAs (Conclusion 5/9 refers). Concluding deliberations on environment, the Meeting invited ICAO to undertake a study on the environmental benefits of the introduction of reduced vertical separation minimum (RVSM) (Conclusion 5/10 refers).

2.4   Agenda Item 3: Aviation Safety

Outcome of and follow-up to the DGCA Conference

2.4.1   The Meeting noted that the Directors General of Civil Aviation (DGCA) Conference on a Global Strategy for Aviation Safety, which was held at ICAO Headquarters in Montreal from 20 to 22 March 2006, agreed to a unified approach to improve aviation safety through coordinated action by all Contracting States, ICAO, and the aviation industry. The Meeting received a verbal presentation of conclusions and recommendation that were relevant for the work programme of PIRGs. The Meeting recognized that PIRGs can play an important role in ensuring that the recommendations of the DGCA Conference are implemented in the most efficient way. To this end, the Meeting agreed that each PIRG develop a practical means of implementing the conclusions and recommendations of the Conference and submit reports to ICAO on a regular basis. As a follow-up to the DGCA Conference, the Meeting addressed areas of ATM safety requiring urgent, high-priority attention and consequently requested ICAO to urge States to give priority to the establishment and effective operation of their ATM safety

management and safety regulatory functions (Conclusion 5/11 refers). In terms of implementation of European Co-ordination Centre for Aviation Incident Reporting Systems (ECCAIRS) software or compatible system, as a tool to operate Accident/Incident Data Reporting (ADREP) system, the Meeting agreed on monitoring the level of ADREP/ECCAIRS or a compatible system implementation and encouraged States to share safety data.

2.5   **Agenda Item 4: Aviation Security**

2.5.1   The Meeting received a report on the progress made of the Universal Security Audit Programme (USAP) and its overall impact in assisting States to identify their aviation security deficiencies throughout the audit and audit follow-up processes. Furthermore, the report discussed the Aviation Security Coordinated Assistance Program, which provides support to States in effectively developing their aviation security infrastructure and to correct aviation security deficiencies revealed under the USAP.

2.6   **Agenda Item 5**: **Interregional coordination and harmonization**

Cost-recovery arrangements for RMAs

2.6.1   Under this agenda item, the Meeting noted that, in some of the regions such as the Middle East Region, the funding of regional monitoring agencies (RMAs) is the main obstacle for the continuation of monitoring operations. The present arrangements under which States, on a voluntary basis, absorb all costs are not sustainable in the long term. As a result, the Meeting was presented with a global approach, as developed by the Secretariat, to cost recovery of RMAs and a step-by-step procedure regarding the implementation of a cost-recovery arrangement. The Meeting noted that the proposed global approach would be finalized subsequent to its review by the sixth meeting of the Air Navigation Services Economics Panel (ANSEP/6), held at ICAO Headquarters from 27 to 31 March 2006.

Coordination amongst RMAs

2.6.2   Continuing deliberations, the Meeting reviewed the role of RMAs in ensuring that the monitoring programme meets agreed safety targets and identified the issues that need to be resolved in order to improve the effectiveness of RVSM monitoring. The Meeting agreed that lack of a global coordination mechanism is an impediment to the efficiacious functioning of RVSM operations. The Meeting felt that global coordination between the various RMAs would meet the objective of allowing them to exchange operational information, monitoring data and best practices. Accordingly, the Meeting suggested that the ICAO European and North Atlantic (EUR/NAT) Office act as the initial focal point since it already liaises between two RMAs and to carry out required global coordination tasks (Conclusion 5/12 refers).

Monitoring data link applications

2.6.3   The Meeting acknowledged that aircraft equipage with future air navigation systems (FANS)-1/A data link applications is continuously expanding as Boeing and AIRBUS now install the system in all newly delivered long-haul aircraft. As the number of FANS-1/A-equipped aircraft is likely to increase, it appears very attractive for States to implement the data link in all procedural airspace as an alternative to high frequency (HF) voice. The Meeting noted that, in the Asia and Pacific Regions, a Central Reporting Agency (CRA) was established for addressing technical and operational issues as well as overall coordination of the implementation of the data link technology. In this context, the Meeting acknowledged that the regional CRA functions cannot independently manage the use of a global satellite data link network and that having many different regional CRA functions would probably delay identification and resolution of performance issues. Consequently, the Meeting accepted the benefits of adopting the concept of a global CRA function to support the regional implementation, but considered that, at this stage, it would be premature to endorse such a proposal and that a business case would be needed before endorsing it.

Global harmonization of RNP/RNAV implementation

2.6.4   The Meeting noted that ICAO was in the process of reviewing the current required navigation performance (RNP) concept to meet the increasing demands of airspace planners and aircraft operators for performance-based navigation (PBN). It is expected that the new concept will harmonize the currently available area navigation (RNAV) and RNP-designated PBN applications under one consistent and harmonized concept. Furthermore, to support the PBN concept, a complete set of navigation specifications is being developed in close coordination with States, industry, and airlines, based on the needs in different regions. The Meeting, supporting the PBN programme, called on ICAO to organize workshops and training activities and agreed that all PIRGs should implement the PBN concept (Conclusion 5/13 refers).

Uniform Methodology

2.6.5   On the subject of deficiencies, the Meeting reviewed the regional proposals for updating the uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies, which was initially prepared with the assistance of PIRGs and approved by the ICAO Council in June 1998 and later amended in 2001.

2.6.6   With regard to a proposal for the development of a regional online database of air navigation, the Meeting acknowledged that such a methodology, in addition to providing transparency, enables information in the database to be current and formatted by State, type, deficiency, date, etc., and agreed to its application in all the regions (Conclusion 5/14 refers). In relation to the elimination of long-standing deficiencies, the Meeting recognized that, even though a number of deficiencies remain unresolved, only a few States in the regions had responded with an action plan to eliminate the deficiencies. Consequently, the Meeting adopted a proposal that calls for implementation of "last resort action" by all PIRGs when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives. The last resort action consists of two parts: first, propose the inclusion of an alternate facility/procedure in the ANP; and, second, if this is not feasible, States, users and ICAO should be provided with an analysis concerning the risk associated with such a deficiency (Conclusion 5/15 refers).

Use of VSAT

2.6.7   The Meeting considered the issues associated with the implementation of ground communication networks using very small aperture terminal (VSAT). It was noted that, in certain ICAO regions, VSAT has been the technology of choice for the provision of aeronautical fixed service (AFS) and other ground-ground communications. However, the continuing trend towards proliferation of such networks has been of concern due to cost and complexity of their interconnections and potential degradation of end-to-end performance. Consequently, the Meeting agreed to work towards integrated regional/interregional digital communication networks with a single (centralized) operational control and preferably based on the Internet Protocol (IP) (Conclusion 5/16 refers). With regard to the network protocols used in VSAT networks, the Meeting noted the widespread availability of IP products and services and requested ICAO to expedite its ongoing work on the development of provisions relating to the use of the Internet Protocol Suite (IPS) in aeronautical communications as well the use of the public Internet (Conclusion 5/17 refers).

Regional Supplementary Procedures

2.6.8   The Meeting acknowledged that Doc 7030, *Regional Supplementary Procedures* (SUPPs), constitute an important document to support the implementation of CNS/ATM Systems and provides the enabling text for regional application of global provisions. As such, States often use the document as the source to sustain changes to national regulations. The Meeting was informed that the ICAO Secretariat had carried out an analysis of the SUPPs with the objective of developing an adequate format and subdivision conducive to CNS/ATM Systems implementation and thus had determined that amendment should occur in two stages. The first stage would be to reorganize the SUPPs in a more coherent fashion, taking account of the emerging requirements for systems performance and capabilities. The second stage would be to change the Index to Application of Supplementary Procedures to more closely reflect the ICAO regions and the areas of responsibility of the PIRGs (Conclusion 5/18 refers).

3.   **PART II – PROPOSED FOLLOW-UP ON ALLPIRG/5 CONCLUSIONS AND RESOURCES REQUIRED**

3.1   The composition and role of ALLPIRG require that its work be followed up differently from that of a typical PIRG. This distinction becomes clear when the required follow-up to the ALLPIRG/5 conclusions, as indicated in the Appendix to this paper, are examined.

3.2   It can be seen, for example, that a number of the conclusions call for action not only by ICAO but also by States and other CNS/ATM partners from the ALLPIRG membership, and, as such, early follow up action will be required through coordinated efforts of ICAO and ALLPIRG members.

3.3   It is confirmed that all the follow-up tasks of ALLPIRG/5 are related to the Business Plan of the Organization and is expected to be accomplished by the Secretariat through the resource allocated in the current programme budget.

4.   **Action by the Meeting**

4.1   In light of the above, the Meeting is invited to:

a) note the report of the ALLPIRG/5 Meeting and its conclusions;

b) take specific note on the conclusions where action by States is required, as proposed in the Appendix; and

c) support follow-up actions involving States.

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Ref.:   M 7/1 – 06/62   18 August 2006

Subject: Follow-up to the fifth meeting of the
ALLPIRG/Advisory Group

Action Required: As suggested in the fourth paragraph
of this letter

Sir/Madam,

I have the honour to refer to the fifth meeting of the ALLPIRG/Advisory Group (ALLPIRG/5) which was held, under the chairmanship of the President of the Council, at ICAO Headquarters in Montreal from 23 to 24 March 2006 and was attended by 100 participants, including 51 observers. The meeting, while focussing its attention on interregional issues, developed eighteen conclusions covering a wide range of issues.

The Council of ICAO, on 13 June 2006, taking into account the comments of the Air Navigation Commission, considered the report of the fifth meeting of the ALLPIRG/Advisory Group. In confirming the role of ICAO in the follow-up to the conclusions, the Council called upon the planning and implementation regional groups (PIRGs), States and other CNS/ATM partners from the ALLPIRG membership to initiate follow-up action on the conclusions adopted by the meeting.

The attachment, which serves as an action plan, indicates follow-up tasks to be initiated on the conclusions of the ALLPIRG/5 Meeting and the assigned responsibilities. As a part of the follow-up, each PIRG will consider the outcome of the meeting and consequently establish sub-tasks associated with each follow-up action. Wherever follow-up is required by the ICAO Secretariat, the tasks have been included in the ICAO Business Plan and the responsibilities are allocated to the concerned Bureau/Section within the ICAO Secretariat for their attainment.

In light of the above, I invite States to include in their action plan the follow-up measures associated with the conclusions of the ALLPIRG/5 Meeting, as detailed in the attachment hereto. In particular, I wish to draw your attention to the following nine conclusions, all of which require specific action by States:

5/2 — Implementation of Global Plan Initiatives

5/4 — Application of the business case model for CNS/ATM systems implementation

5/5 — ICAO Global air navigation plan (ANP) database and geographic information system (GIS) portal

5/7 — Environmental benefits of CNS/ATM systems

5/8 — Globally coordinated air traffic services (ATS) routes

5/9 — Terminal area (TMA) structure and area navigation

5/11 — Air traffic management (ATM) safety management

5/13 — Implementation of performance-based navigation concept

5/16 — Implementation of very small aperture terminals (VSATs)

For more details regarding the meeting, its conclusions, Council working papers and follow-up, please refer to the report material which is available on the ICAO website at www.icao.int.

Accept, Sir/Madam, the assurances of my highest consideration.

Taïeb Chérif
Secretary General

Enclosure:
Follow-up on conclusions developed by the
ALLPIRG/5 Meeting

ATTACHMENT to State letter M 7/1 – 06/62
FOLLOW-UP ON CONCLUSIONS DEVELOPED BY THE ALLPIRG/5 MEETING

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/1 — Workshops on the Global Plan for Regional Offices				
That, in support of the Global Plan, ICAO conduct workshops in the Regional Offices to provide training on planning tools and methodologies as well as strengthening the interaction between technical officers at Headquarters and Regional Offices.	Increases efficiency (Strategic objective D) Relates to all GPIs	Conduct workshops in the Regional Offices to provide training on planning tools and methodologies through the SIP mechanism	Approved, with the understanding that the proposal for a SIP would be submitted to the Council through established procedures	ICAO Headquarters
Conclusion 5.2 — Implementation of Global Plan Initiatives (GPIs)				
That, recognizing that the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure, the regional planning groups:	Increases efficiency (Strategic objective D) Relates to all GPIs			
a) note that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, provide an effective architecture for achieving a harmonized and seamless Global ATM system;		Note that the Global Plan is a significant component in the development of regional and national plans	Noted, with an understanding that the revised Global Plan will be presented to the Council in late 2006	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
b) identify GPIs that most closely align with the well established implementation plans of their respective regions;		Identify GPIs that most closely align with the implementation plans of their respective regions	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
c) select GPIs that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished;		Select GPIs that would be most effective in achieving the objectives of the region	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
d) implement GPIs that take into account the Initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;		Implement GPIs in the development of national and regional plans	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
e) utilize the planning tools as the common planning and implementation mechanism, thereby ensuring proper coordination and global integration; and		Utilize the planning tools as the common planning and implementation mechanism	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
f) review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs using a common template.		Review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs	Noted	ICAO Regional Offices and PIRGs

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/3 — Workshop on the business case model for communications, navigation, and surveillance/air traffic management (CNS/ATM) Systems				
That, in support of the development of business cases for the implementation of CNS/ATM systems, ICAO convene a training workshop for States at the Regional Offices through an appropriate mechanism, such as Special Implementation Projects (SIPs).	Increases efficiency (Strategic objective D) Relates to all GPIs	ICAO to convene a training workshop for States at the Regional Offices through the SIP mechanism	Approved, with the understanding that the proposal for a SIP would be submitted to the Council through established procedures	ICAO Headquarters
Conclusion 5/4 — Application of the business case model for CNS/ATM systems implementation				
That PIRGs, States and airspace users:	Increases efficiency (Strategic objective D) Relates to all GPIs			
a) note that business cases for the implementation of CNS/ATM systems leading to a global ATM system is a key element in the development of regional, subregional and national plans;		Note that business cases for the implementation of CNS/ATM systems is a key element in the development of regional, subregional and national plans	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organization
b) consider the application of the model for the development of business cases in the formulation of national and subregional plans with a view to facilitating the achievement of a global ATM system; and		Apply the model for the development of business cases in the formulation of national and subregional plans	Noted	ICAO Regional Offices, PIRGs, **States**, and international organizations
c) establish, with ICAO's assistance and within the limits of the programme budget, a network of experts on cost-effectiveness, cost-benefit analyses and business cases for the implementation of CNS/ATM systems in order to share expertise and to provide assistance to the Regional Offices.		Establish a network of experts on cost-effectiveness, cost-benefit analyses and business cases for the implementation of CNS/ATM systems	Noted	ICAO Headquarters

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/5 — ICAO Global air navigation plan (ANP) database and geographic information system (GIS) portal				
Recognizing that access to an ICAO Global ANP database and associated planning services through an web-based ICAO GIS portal would constitute an invaluable tool in supporting, integrating and monitoring the planning and implementation of harmonized regional, interregional and global air navigation infrastructures, the regional planning groups:	Increases efficiency (Strategic objective D) Relates to all GPIs			
a) note the progress made by the Secretariat in accordance with Recommendation 1/14 of AN-Conf/11 and the ICAO Global ANP database;		Note the progress made in the development of ICAO Global ANP database	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
b) note the ongoing efforts by the Secretariat in harmonizing formats of all the ANP tables together with the inclusion of temporal information in the tables that would assist the regional planning groups in monitoring and analysing the implementation progress;		Harmonize formats of all the ANP tables	Noted	ICAO Headquarters
c) note the intent to expand the ANP tables to include Global Plan Initiatives (GPIs), as appropriate; and		Include GPIs in the ANP tables	Noted	ICAO Headquarters
d) utilize, through the ICAO GIS portal, the ICAO Global ANP database and associated planning services so as to ensure the currency, coordination and implementation of regional air navigation planning and to contribute to the further development of air navigation plans as the framework for the efficient implementation of new air navigation systems and services at the national, regional, interregional and global levels.		Utilize the ICAO Global ANP database and associated planning service	Noted	ICAO Regional Offices, PIRGs, **States**, and international organization
Conclusion 5/6 — Development of planning tools				
That ICAO, in the development of planning tools and services, should accommodate requirements established by the Regional Offices, as well as to take into account similar tools developed by other organizations such as EUROCONTROL.	Increases efficiency (Strategic objective D) Relates to all GPIs	Develop planning tools by taking into account regional requirements and experience gained by other organizations	Noted	ICAO Headquarters

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/7 — Environmental benefits of CNS/ATM systems				
That PIRGs and States: a) use the Committee on Aviation Environmental Protection (CAEP) provided CO_2 conversion factor in the analysis of environmental benefits of implementing CNS/ATM systems;	Minimizes environmental impact (Strategic objective C)	Use the CAEP provided CO2 conversion factor in the analysis of environmental benefits of implementing CNS/ATM systems	Noted	ICAO Regional Offices, PIRGs and **States**
b) prioritize the implementation of voluntary, operationally-based improvements in their air traffic management systems, with emphasis on fuel savings, emissions reductions and noise benefits, and also to mitigate costs to the industry;		Prioritize the implementation of voluntary, operationally-based improvements in their air traffic management systems	Noted	ICAO Regional Offices, PIRGs and **States**
c) provide feedback to ICAO on studies conducted on the environmental benefits of implementing CNS/ATM systems; and		Provide feedback to ICAO on studies conducted on the environmental benefits of implementing CNS/ATM systems	Noted	ICAO Regional Offices, PIRGs and **States**
d) share air traffic data to improve future CAEP assessments, in line with State letter AN 1/17-03/86.		Share traffic data with CAEP	Noted	ICAO Regional Offices, PIRGs, **States** and international organizations
Conclusion 5/8 — Globally coordinated air traffic services (ATS) routes				
That PIRGs: a) establish a global consolidated, prioritized list of routes and terminal area (TMA) improvements in close coordination with airspace users; and	Increases efficiency (Strategic objective D) Relates to GPI 7	Establish a global consolidated, prioritized list of routes and terminal area (TMA) improvements	Noted	ICAO Headquarters, ICAO Regional Offices and PIRGs
b) work with neighbouring PIRGs/States/air navigation service providers (ANSPs) to accelerate international route improvements.		Work with neighbouring PIRGs/States/ANSPs to accelerate international route improvements	Noted	ICAO Regional Offices, PIRGs and **States**

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/9 — Terminal area (TMA) structure and area navigation				
That States:	Increases efficiency (Strategic objective D) Relates to GPI 5			
a) employ area navigation in all TMAs, including appropriate arrival and departure procedures, to improve efficiency and reduce emissions in the vicinity of airports; and that, in special cases where there are particularly challenging obstacles and where air traffic density is very high and additional approach paths are possible, the more precise and contained required navigation performance (RNP) procedures be employed; and		Employ area navigation in all TMAs, including appropriate arrival and departure procedures	Noted	ICAO Regional Offices, PIRGs and **States**
b) review operations, procedures and training of controllers to ensure the optimum management of air traffic services.		Review operations, procedures and training of controllers to ensure the optimum management of air traffic services	Noted	ICAO Regional Offices, PIRGs and **States**
Conclusion 5/10 — Environmental benefits of RVSM introduction and regional expertise				
That ICAO:	Minimizes environmental impact (Strategic objective C) Relates to GPI 2			
a) undertake a study on the environmental benefits of the introduction of RVSM and to ensure that this information is transmitted to policy makers; and		Study the environmental benefits of the introduction of RVSM	Noted	ICAO Headquarters
b) seek appropriate support from recognized expert organizations in its work on quantifying the environmental benefits of RVSM, noting the support offered by EUROCONTROL in this regard.		Seek support from recognized expert organizations in its work on quantifying the environmental benefits of RVSM	Noted	ICAO Headquarters

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/11 — Air traffic management (ATM) safety management				
That ICAO: a) urge States to give priority to the establishment and effective operation of their ATM safety management and safety regulatory functions;	Increases safety (Strategic objective A)	Give priority to the establishment and effective operation of their ATM safety management and safety regulatory functions	Noted	**States**
b) support the development of sufficient expertise levels in the industry through formal training in ATM safety issues and, by cooperation through regional bodies, promote collective means to optimize the effectiveness of training provision; and		Develop formal training in ATM safety issues	Noted	ICAO Regional Offices, PIRGs, and **States**
c) develop further measures to enable the implementation of a "just-culture" reporting environment to facilitate the reporting of ATM occurrences.		Implement a "just-culture" reporting environment to facilitate the reporting of ATM occurrences	Noted	ICAO Regional Offices, PIRGs and **States**
Conclusion 5/12 — Coordination between regional monitoring agencies (RMAs)				
That the ICAO EUR/NAT Office act as the initial focal point for the required coordination between RMAs in order to: a) facilitate the exchange of monitoring and operational data between RMAs;	Increases efficiency (Strategic objective D) Relates to GPI 2	Facilitate the exchange of monitoring and operational data between RMAs	Noted	ICAO EUR/NAT Office
b) facilitate the exchange information about best practices between RMAs;		Facilitate the exchange information about best practices between RMAs	Noted	ICAO EUR/NAT Office
c) ensure that incident reports are correctly disseminated to the appropriate RMA;		Ensure that incident reports are correctly disseminated to the appropriate RMA	Noted	ICAO EUR/NAT Office
d) provide a forum to manage changes to monitoring requirements; and		Provide a forum to manage changes to monitoring requirements	Noted	ICAO EUR/NAT Office
e) ensure the maintenance of the RMA Handbook.		Ensure the maintenance of the RMA Handbook	Noted	ICAO EUR/NAT Office

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/13 — Implementation of performance-based navigation concept				
That, to increase awareness and understanding of the performance-based navigation concept and its elements:	Increases efficiency (Strategic Objective D) Relates to GPI 5			
a) ICAO organize workshops and training activities; and		Organize workshops and training activities through the SIP mechanism	Approved, with the understanding that the proposal for a SIP would be submitted to the Council through established procedures	ICAO Headquarters
b) where area navigation (RNAV) or required navigation performance (RNP) implementations are required, these will be implemented by PIRGs and States according to the performance-based navigation concept.		Implement performance-based navigation concept	Noted	ICAO Regional Offices, PIRGs, **States**, service providers and international organizations
Conclusion 5/14 — A regional online database of air navigation deficiencies				
That, PIRGs consider establishing and maintaining a regional online database of air navigation deficiencies that ensures transparency and provides a secure access to authorized users.	Increases safety (Strategic objective A)	Establish and maintain a regional online database of air navigation deficiencies	Noted	ICAO Regional Offices and PIRGs
Conclusion 5/15 — Last resort action to resolve regional air navigation deficiencies				
That, when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives, PIRGs adopt the following last resort action, which consists of the two parts:	Increases safety (Strategic objective A)	Implement last resort action when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives. Indicate the safety impact for every deficiency as soon as it is identified and publish in the table of deficiencies as well as in the regional on-line database.	Approved	ICAO Regional Offices and PIRGs ICAO Regional Offices and PIRGs
a) propose the inclusion of an alternate facility/procedure in the air navigation plan (ANP); or				
b) when a corrective action as a) above cannot be recommended, provide the State(s)/Territory(ies)/users and ICAO with an analysis concerning risk associated with such a deficiency.				

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/16 — Implementation of very small aperture terminals (VSATs)				
That PIRGs:	Increases efficiency (Strategic Objective D) Relates to GPI 22			
a) discourage the proliferation of VSAT networks where one/some of the existing ones can be expanded to serve the new areas of interest;		Discourage the proliferation of VSAT networks	Noted	ICAO Regional Offices, PIRGs and service providers, **States**
b) work towards integrated regional/interregional digital communication networks with a single (centralized) operational control and preferably based on the Internet Protocol (IP); and		Work towards integrated regional/interregional digital communication networks	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
c) give due consideration to managed network services (e.g. a virtual private network (VPN)), subject to availability and cost-effectiveness.		Give due consideration to managed network services	Noted	ICAO Regional Offices, PIRGs, **States**, service providers, and international organizations
Conclusion 5/17 — Provisions for digital communication networks				
That ICAO:	Increases efficiency (Strategic Objective D) Relates to GPI 22			
a) expedite the development of provisions relating to the use of the Internet Protocol Suite (IPS) in the aeronautical telecommunication infrastructure; and		Expedite the development of provisions relating to the IPS in the aeronautical telecommunication infrastructure	Noted	ICAO Headquarters
b) initiate the development of provisions governing the end-to-end performance of digital communication networks, irrespective of the technologies and protocols utilized therein.		Develop provisions governing the end-to-end performance of digital communication networks	Approved	ICAO Headquarters

ALLPIRG/5 Conclusions	Relationship with Strategic Objective & Global Plan Initiatives (GPIs)	Follow-up task	Action taken by the Council	To be initiated by
Conclusion 5/18 — Changes to the Regional Supplementary Procedures (SUPPs) (Doc 7030)				
That ICAO a) restructure the SUPPs (Doc 7030) by the complete reordering and reorganization of the material;	Increases efficiency (Strategic Objective D) Relates to all GPIs	Restructure the SUPPs by the complete reordering and reorganization of the material	Approved	ICAO Headquarters
b) align the area of application of the SUPPs with the area of application of the regional air navigation plans (ANPs); and		Align the area of application of the SUPPs with the area of application of the ANPs	Noted	ICAO Headquarters
c) make SUPPs available on a CD as well as on the ICAO website.		Make SUPPs available on ICAO website	Noted	ICAO Headquarters

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