REPORT OF THE THIRD MEETING OF THE ALLPIRG/ADVISORY GROUP

Montreal, 6 – 8 April 1999

(Presented by the Secretariat)

1. GENERAL

1.1 The third meeting of the ALLPIRG/Advisory Group was held at ICAO Headquarters in Montreal from 6 to 8 April 1999.

1.2 The meeting was chaired by Dr. Assad Kotaite, President of the Council of ICAO. Mr. V.D. Zubkov, Chief, Regional Affairs Office (RAO) served as Secretary of the meeting. The meeting was also assisted by Mr. J.D. Howell, Director, Air Navigation Bureau, Mr. M.C.F. He l, Deputy Director, Air Navigation Bureau, Mr. A. Pavlovic, Chief, Aeronautical Information and Charts (AIS) Section, Mr. C.-R. Boquist, Chief, Air Traffic Management (ATM) Section, Mr. J. Chagas, Chief, Communications, Navigation and Surveillance (CNS) Section, Mr. V. Galotti, Technical Officer, ATM Section, Mr. M.D. Lam, Consultant, ATM Section, Mrs. J. Hupe, Technical Officer, Operations/Airworthiness (OPS/AIR) Section, Mr. C.B. Lyle, Deputy Director, Air Transport Bureau, Mr. G. Finnsson, Chief, Airport and Route Facility Management (ARFM) Section, Mr. U.K. Wickrama, Chief, Forecasting and Economic Planning (FEP) Section, Mr. A. Sanchez, Director, Technical Co-operation Bureau, Mr. M. Krüll, Deputy Director, Technical Co-operation Bureau, Mr. W. Amaro, Chief, Field Operations Section – The Americas, Technical Co-operation Bureau, Mr. D. McKnight, Regional Affairs Officer, Mr. H.V. Sudarshan, Regional Affairs Officer, Mr. H. Tehrani, Regional Affairs Officer, and Mr. J.M. Ceppi Morales, ICAO Deputy Regional Director, South American Office.

1.3 The meeting was attended by 49 participants and 14 observers, listed at the appendix.

1.4 The following agenda was approved by the meeting:

Agenda Item 1: Review of follow-up actions on the ALLPIRG/2 Report

Agenda Item 2: Review of the format of meetings of Chairmen of the CNS/ATM IC Sub-groups

Agenda Item 3: Review of follow-up actions to the World-wide CNS/ATM Systems Implementation Conference

Agenda Item 4: Financing issues

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AGENDA ITEM 1: REVIEW OF FOLLOW-UP ACTIONS ON THE ALLPIRG/2 REPORT

1.1 The meeting noted the action taken by the Air Navigation Commission (ANC) and the Council on the report of the second meeting of the ALLPIRG/Advisory Group (ALLPIRG/2), which had been held in Montreal from 16 to 18 February 1998.

1.2 The conclusions of ALLPIRG/2 called for certain actions not only by ICAO, but also by other CNS/ATM partners from the ALLPIRG membership. Consequently, ICAO has already initiated a number of follow-up measures in conjunction with its follow-up to the World-wide CNS/ATM Systems Implementation Conference. The meeting, while reviewing follow-up actions taken by the Secretariat on ALLPIRG/2 conclusions, noted that a mixed reaction had emerged to the questionnaire on the merits of creating a core coordinating team (Conclusion 2/13). Instead, there has been general support for a coordinating function with a regional emphasis. As this subject was discussed at length under Agenda Item 2, Conclusion 2/13 was further developed in paragraph 2.4 as Conclusion 3/1. With regard to organizing a coordination meeting of Chairmen of the CNS/ATM IC Sub-groups during the ALLPIRG meetings (paragraph 5.1 of the ALLPIRG/2 Report), the subject was deferred for further consideration under Agenda Item 2.

1.3 As a result of the review in the meeting, the updated list of follow-up actions taken on the conclusions developed by ALLPIRG/2 are detailed in the appendix to the report on this agenda item.

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APPENDIX

FOLLOW-UP ACTIONS TAKEN ON THE CONCLUSIONS DEVELOPED BY THE ALLPIRG/2 MEETING

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/1 – Global Plan Executive Summary That: a) the Secretariat develop a high level Global Plan Executive Summary, focussing on crucial planning and implementation issues, including safety, which would serve the purpose of gaining the political commitment necessary for implementation of CNS/ATM systems; and b) the Executive Summary be completed in time for the CNS/ATM World-wide Implementation Conference.	Structuring a high level Executive Summary	Completed and presented to the Rio Conference	Being distributed to States
Conclusion 2/2 – Identification of homogeneous ATM areas and major international traffic flows at the global and regional levels That ICAO's regional planning groups identify homogeneous ATM areas and major international traffic flows at the global and regional levels, with the support of CNS/ATM implementation partners, to ensure the co-ordinated implementation of CNS/ATM systems resulting in a seamless environment for airspace users.	Coordination with PIRGs	All regional planning groups have identified homogeneous ATM areas and major international traffic flows	Ongoing task
Conclusion 2/3 – Planning and implementation of CNS/ATM systems by States That States, at the global and regional levels, adopt planning and implementation of CNS/ATM systems on the basis of homogeneous ATM areas and major international traffic flows.	Coordination with States in adopting the planning methodology	Initial coordination completed (State letter)	Ongoing task
Conclusion 2/4 – Planning and implementation of CNS/ATM systems by service providers and airspace users That service providers and airspace users, at the global and regional levels, participate in planning and implementation of CNS/ATM systems on the basis of homogeneous ATM areas and major international traffic flows.	Coordination with service providers and airspace users in adopting the planning methodology	Initial coordination completed (letter to CNS/ATM partners)	Ongoing task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/5 – Need for political commitment for implementation of CNS/ATM systems That ICAO, in coordination with States, regional and subregional organizations make arrangements to generate the necessary political will at the highest level possible needed to sustain the implementation of CNS/ATM systems.	Co-ordination with States, regional and subregional organizations	Initial coordination completed (State letter)	Ongoing task
Conclusion 2/6 – Establishment and management of CNS/ATM systems That States and groups of States: a) consider the various institutional arrangements, covering regulatory aspects and service provisions, that are available for the establishment and management of CNS/ATM systems at the national, regional and global levels; b) adopt a co-operative, multinational approach in order to ensure seamlessness and interoperable systems at the regional and global levels; and c) avoid proliferation of system elements in order to reduce costs, enhance safety and increase operational efficiency.	Coordination with States	Brought to the attention of States through a State letter, seminars, meetings and workshops	Ongoing task
Conclusion 2/7 – Regular updates to show the regional picture of WGS 84 implementation That ICAO Regional Offices present to each meeting of the PIRG concerned the regional situations, State by State, of implementation of WGS-84 and the reasons for non-implementation. Each PIRG should assess the implications on the CNS/ATM regional plan and possible solutions for improvement.	Regular updates on WGS 84 implementation for each PIRG meeting	Regular updates are being provided to PIRGs, ALLPIRG and the ANC	Ongoing task
Conclusion 2/8 – Further assistance to States for WGS 84 implementation That ICAO provide more assistance to States in the form of WGS 84 seminars, workshops and SIPs on the basis of the results of regular updates resulting from Conclusion 2/7 above. In doing so ICAO should seek assistance from States, international/regional organizations and other CNS/ATM systems implementation partners as appropriate.	Assistance to States	Assistance was provided in 1998 to States of the AFI and CAR/SAM Regions	Ongoing task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/9 – More business-like planning That the ICAO regional planning process include: a) greater emphasis on sharing/co-operative arrangements at the planning level, particularly with regard to those areas that involve more than one ICAO planning region; b) the development of a standardized approach to planning for these areas; and c) increased interaction between planning partners including groups of States within the region to avoid duplication of work.	Adoption of business-like planning by PIRGs	PIRGs being encouraged. A pilot project for the CAR/SAM Regions in progress.	Ongoing task
Conclusion 2/10 – Expanded role for PIRGS That, using a system approach, the role of PIRGs be expanded to include: a) intensified efforts to assist with implementation; b) the preparation of cost/benefit analyses for implementation options; and c) the development of comprehensive business cases for "competing" implementation options for homogeneous ATM areas and major international traffic flows; and, to that end, ICAO, with the support of providers and users of the system: d) would give PIRGs greater access to economics and financial expertise; e) facilitate contacts between PIRGs and financial institutions; and f) make available guidance material for cost/benefit analysis and business case development.	To expand the role of PIRGs Additional support to PIRGs for the development of business cases/guidance for cost/benefit analyses	PIRGs being encouraged Included in programme of implementation actions on Rio Conference; Proposals presented to ALLPIRG/3	Ongoing task Council to act on the ALLPIRG/3 Report during its 157th Session
Conclusion 2/11 – Business cases to facilitate financing That the Rio Conference is availed of to persuade financial institutions, on submission of the business cases developed for implementation of CNS/ATM systems for homogeneous ATM areas and/or traffic flows, to consider favourably financing the transition (loans/debt financing) in the States requesting it.	Persuade financial institutions to finance the transition to CNS/ATM systems	Included in programme of implementation actions on the Rio Conference	Ongoing task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/12 – More business-like assistance with implementation That the ICAO regional planning process provide: a) greater emphasis on sharing/co-operative arrangements at the financing and implementation levels; b) for the development of a standardized approach to the development of business cases in support of sets of planned facilities and services; and c) for participation of financial institutions as CNS/ATM partners when required.	a) Standardized approach to the development of business cases b) Facilitate financial institutions' participation in PIRG meetings	Included in programme of implementation actions on Rio Conference; Proposals presented to ALLPIRG/3 ALLPIRG/3 considered draft terms of reference (TOR)	Council to act on the ALLPIRG/3 Report during its 157th Session The Council (C 157) will be presented with revised TOR for approval
Conclusion 2/13 – Core co-ordinating team on CNS/ATM That ICAO: a) create a core co-ordinating team on CNS/ATM by appropriately enhancing the existing Secretariat team devoted to preparations for the forthcoming worldwide conference on CNS/ATM; and b) entrust this team with the tasks of co-ordinating and assisting PIRGs during and after the implementation of the changes to their role and scope as envisaged above, as well as providing general support of the ALLPIRG group and its terms of reference. Para. 5.2 of the report) ICAO to enhance the role and responsibilities of this core co-ordinating team by extending the membership to CNS/ATM systems implementation partners.	a) Creation of core coordinating team b) Assignment of task to the core coordinating team c) Extending the membership of the core coordinating team to the CNS/ATM implementation partners	Council encouraged multidisciplinary approach Mixed reaction to the questionnaire on the merits of creating a core coordinating team Instead, the coordination function is in place at the regional level, with further plans for coordination at HQ Rio Conference endorsed regional and subregional approach	General support for coordination function with regional emphasis HQ resources available as required Ongoing task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/14 – Pilot project That ICAO develop a 1998 special implementation project (SIP) that would comprise implementation, on a trial basis and in the context of the work of the GREPECAS group in the CAR/SAM Regions, of all the enhancements to the role and scope of PIRGs envisaged above.	Establish a SIP in the form of a pilot project for the CAR/SAM Region	SIP in progress	A summary report of the SIP presented to the meeting
Conclusion 2/15 – Uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies That the methodology in Appendix C is endorsed by ALLPIRG, noting that serious cases of shortcomings and deficiencies will be brought to the attention of the ICAO Air Navigation Commission in the most expeditious manner.	Brief for ANC on serious cases of shortcomings and deficiencies	Uniform methodology has been approved by the ICAO Council on 23 June 1998 (C 154/19) ANC is being presented with reports on shortcomings & deficiencies as part of PIRG reports	Ongoing task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/16 – Assistance by PIRGs for the preparation of basic ANP and FASID documents That PIRGs which have not already done so establish, as a matter of high priority, a FASID task force to assist regional offices in the preparation of the basic ANP and FASID documents. These documents should contain the conventional planning and implementation regional material as well as material related to the new ICAO CNS/ATM systems.	Establishment of FASID task force by PIRGs and preparation of basic ANP and FASID	All PIRGs have established the task force - APANPIRG and MIDANPIRG have developed draft documents through task force and the assistance of Secretariat - APIRG task force will meet in June 1999 - CAR/SAM is expected to be complete before RAN Meeting (10/99) - EANPG scheduled to develop by December1999	Ongoing
Conclusion 2/17 – Priority by ICAO to maintain basic ANP and FASID documents That ICAO should give higher priority to the timely development, printing and dissemination of regional basic ANP and FASID documents since they are important planning tools for States and PIRGs.	Printing and dissemination of regional basic ANP and FASID documents	No final ANP and FASID have yet been printed or disseminated	Once the PIRGs' task forces complete the work on the separation of the ANP and FASID, priorities will be established

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/18 – Creation and maintenance of an air navigation planning database That: a) the "strawman" CNS/ATM database exercise envisaged by ALLPIRG/1 (Conclusion 1/13) should be incorporated into a more general exercise of an air navigation planning database to be developed from the information contained in the regional air navigation plans (including implementation dates) and linked to users' and manufacturers' selected databases; b) this ANP database be used to support ICAO work in the areas of: i) development of new regional ANPs; ii) integration of regional CNS/ATM plans into the new ANPs; iii) CNS/ATM planning and implementation; iv) elimination of air navigation shortcomings and deficiencies; v) planning homogeneous ATM areas; and vi) the development of business cases in the context of the work of PIRGs. c) the ANP database should be linked to: i) internal and external air traffic forecast and timetable databases; ii) the Volume II of the ICAO Global Plan; iii) national plans to the extent possible; and iv) databases of regional organizations.	Creation and maintenance of air navigation planning database	In progress Several ICAO offices/sections are collaborating on this task by pooling the resources of their automation experts. Priority is being given to b) in light of the priority items it contains	Ongoing task a) 4Q 2000 b) 1Q 2000 c) 4Q 2000

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/19 – Year 2000 date change problem That: a) ICAO, IATA and States, while looking into the assistance required, to assess, to the extent possible, the potential impact of the year 2000 problem on international aviation; b) ICAO, States, service providers and users as a matter of urgency, to develop contingency plans to mitigate potential year 2000 problems to aviation systems; c) ICAO collect from States, data relating to the year 2000 problem and disseminate the information emphasizing the role and responsibilities of States, certification authorities and provide assistance as may be necessary; and d) the year 2000 problem be included in the work programmes of planning and implementation regional groups (PIRG) and that work on the subject be commenced urgently in order to provide assistance to States.	a) To assess the potential impact of the Y2K problem b) To develop contingency plans c) Data collection by ICAO d) Year 2000 problem to be included as part of PIRGs' work programmes	a) In progress b) In progress c) In progress d) All PIRGs have included Y2K in their work programmes	a) Critical assessment report to be finalized by August 1999 b) As soon as possible but not later than 12 August 1999 c) States to publish appropriate aeronautical information by 1 July '99; assistance to be provided to selected States by the "tiger team" d) Y2K Task Force has been established in each PIRG

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/20 – Support for the ICAO position at future ITU Conferences a) regional planning groups should address matters concerning the protection of radio frequency spectrum directly in co-ordination with national CAAs and ICAO Headquarters with States and regional telecommunication organizations; b) the ICAO Assembly should emphasize the need for an adequate mechanism to ensure protection of the aeronautical radio frequency spectrum; c) the Secretary General should consider addressing future ITU WRCs; d) the States should be informed at the Worldwide CNS/ATM Systems Implementation Conference (Rio de Janeiro, 11 to 15 May 1998) on the importance of securing adequate radio frequency allocations for CNS/ATM system implementation; e) regional meetings with director generals of civil aviation should review the progress of States' preparations for ITU WRC's on a regular basis; (Continued overleaf)	a) To address matters concerning protection of radio frequencies	a) The ICAO position has been presented at a number of meetings	a) ALLPIRG/3 reaffirmed the urgency of the task
	b) Development of a mechanism to ensure protection of the aeronautical radio frequency spectrum	b) The 32nd Session of the ICAO Assembly adopted Resolution A32-13 supporting the ICAO policy	b) States and international organizations have been invited to implement Resolution A32-13
	c) Addressing future ITU WRCs by SG	c) A statement by the Secretary General of ICAO has been delivered to the ITU Plenipotentiary conference	c) A statement by ICAO's Secretary General to WRC-2000 is also planned
	d) Address the issue at the Rio Conference	d) Rio Conference was informed to secure the support	d) Task completed
	e) Review of States' preparations for ITU WRCs at DGCA regional meetings	e) In progress	e) ALLPIRG/3 reaffirmed the urgency of the task

ALLPIRG/2 CONCLUSION	FOLLOW-UP METHOD	STATUS	TARGET DATE/ REMARKS
Conclusion 2/20 – Support for the ICAO position at future ITU Conferences (continued) f) participation of aeronautical experts in national delegations to ITU conferences need to be increased; and g) co-ordination between ICAO and IMO should be intensified.	f) Participation of aeronautical experts in national delegations to ITU Conferences	f) States are being urged to have aeronautical experts participate in national delegations at ITU conferences	f) ALLPIRG/3 reaffirmed the urgency of the task
	g) Enhance coordination with IMO and other interested international organizations	g) coordination between ICAO and IMO has been intensified	g) ALLPIRG/3 reaffirmed the urgency of the task
Para 2.1.7 of the ALLPIRG/2 Report: Information concerning the environmental benefits associated with implementation of CNS/ATM systems should be included in the Global Plan at the earliest opportunity.	Coordination with the activities of ICAO/CAEP	In progress	CAEP/5
Para. 5.1 of the ALLPIRG/2 report: ICAO to organize a coordination meeting of Chairmen of all the CNS/ATM IC subgroups during the ALLPIRG meetings.	Coordination meeting of all the CNS/ATM IC sub-groups during ALLPIRG meetings	There are mixed opinions on the merits of holding such a coordination meeting	ALLPIRG/3 discussed this subject under Agenda Item 2

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AGENDA ITEM 2: REVIEW OF THE FORMAT OF MEETINGS OF CHAIRMEN OF THE CNS/ATM IC SUB-GROUPS

2.1 It was recalled that ALLPIRG/2 had agreed to devote the day prior to each ALLPIRG meeting to bring together the Chairmen of the PIRGs' CNS/ATM IC Sub-groups for the purpose of discussing CNS/ATM matters requiring detailed coordination. However, subsequent consultations with ALLPIRG members had produced mixed opinions on the merits of such an arrangement and this agenda item was consequently devoted to discussion of a proposal by the South American and Caribbean Planning and Implementation Regional Group (GREPECAS) CNS/ATM IC Sub-group to carry out the CNS/ATM planning, coordination and implementation at the interregional level.

2.2 The proposal introduced the question of how interregional traffic flows should be planned, and the idea of identifying and managing common planning areas at the interfaces where major traffic flows crossed from one region to another was put forward. It was understood that the core coordinating team, which ALLPIRG/2 had recommended be created, would provide the resources for this activity, but fears were expressed that such an approach would add an additional layer of bureaucracy to the planning process and should be avoided. Views were also expressed that the traditional approach managed by regional offices of coordinating at the interregional interfaces together with exchange visits by, or contacts between, staff from different offices during the planning stage was more appropriate. On the other hand, given the objectives of seamlessness, inter-operability and global harmonization of CNS/ATM implementation, the importance of carrying out end-to-end planning for major traffic flows was also recognized.

2.3 The significance of the roles of the regional offices, the PIRGs and ALLPIRG and the nature of ICAO's framework for CNS/ATM planning itself were also examined in this context, and it was agreed that the main part of this discussion would be reported on under Agenda Item 5.5, which also dealt with these matters.

2.4 Notwithstanding the above, the meeting was already able to agree on a number of basic points that constituted the key elements of ICAO's framework for CNS/ATM planning, which it formulated in the following conclusion:

Conclusion 3/1 – Framework for CNS/ATM planning

That:

a) the *Global Air Navigation Plan for CNS/ATM Systems* constitutes the basis for CNS/ATM planning;

b) PIRGs and regional offices will be consulted during updates of the *Global Air Navigation Plan for CNS/ATM Systems*, particularly with regard to regional elements;

c) ALLPIRG will reconcile any divergent proposals in respect of b) above in an expeditious manner;

d) Chief, Regional Affairs Office will constitute the point of contact at ICAO Headquarters to support and coordinate interregional and other ALLPIRG-related activities; and

e) regional offices should be provided with the additional resources necessary for them to carry out their full roles in CNS/ATM planning.

2.5 The difficulties which continued to be encountered with regard to some aspects of the *Supplementary Procedures* (Doc 7030) were also highlighted as requiring attention in the context of improving interregional planning. As a result of the discussions that ensued, the meeting developed the following conclusion:

Conclusion 3/2 – Review of the *Supplementary Procedures* (Doc 7030)

That ICAO develop an adequate format and subdivision of Doc 7030 conducive to CNS/ATM systems planning in accordance with the concept of homogeneous ATM areas and major international traffic flows.

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AGENDA ITEM 3: REVIEW OF FOLLOW-UP ACTIONS TO THE WORLD-WIDE CNS/ATM SYSTEMS IMPLEMENTATION CONFERENCE

3.1 The meeting was presented with the Programme of Implementation Actions as a Follow-up to the World-wide CNS/ATM Systems Implementation Conference and action taken by the Council thereon. In particular, it was noted that certain items of the programme involve specific action by planning and implementation groups (PIRGs) and, in that regard, there is a foreseen role for the ALLPIRG/Advisory Group to keep abreast of such activities in order to ensure global compatibility and consistency.

3.2 The meeting was informed of the participation by several subregional bodies or institutions in the planning and implementation of CNS/ATM systems. It was however emphasized that, while such subregional bodies can make valuable contributions to the overall planning and/or implementation process, the actual plans should be finalized at PIRG meetings.

3.3 The meeting also acknowledged that PIRGs should, in general, organize and conduct their work in such a way that matters needing action by ALLPIRG be properly identified and documented in a timely manner. Table 3-1 shows some examples of such matters.

No.	Work Item (for PIRGs)	Action by ALLPIRG
1.	Communicate status of actual regional CNS/ATM systems implementation initiatives and activities	Identify implementation priorities and consolidate received reports into a world-wide implementation status report at each meeting
2.	Noting regional developments and pace of implementation, suggest changes/additions to Volume II of the *Global Air Navigation Plan for CNS/ATM Systems*	Develop consolidated amendment proposals to the Global Plan as necessary
3.	Actively address possible interregional issues such as: a) the need to upgrade certain aeronautical fixed service (AFS) circuits (which may imply the implementation of aeronautical message handling service (AMHS) in certain cases) between adjacent regions; b) the rectification of possible hurdles to the seamless transition between regions served by different service providers; and c) the harmonization of regional airborne collision avoidance system (ACAS) implementation (including regulatory and training aspects) in order to comply with the global mandate adopted by Council (C153/14).	Review the subjects and suggest solutions as appropriate

Table 3-1. PIRG matters requiring action by ALLPIRG

No.	Work Item (for PIRGs)	Action by ALLPIRG
4.	Clearly identify specific regional training requirements	Review requirements and develop proposals to avoid duplication of efforts in preparing and organizing courses, seminars and workshops
5.	Clearly identify technical cooperation requirements	Review requirements and develop proposal to facilitate early and harmonized implementation of CNS/ATM systems in all regions

Table 3-1. PIRG matters requiring action by ALLPIRG (Continued)

3.4 The meeting subsequently agreed upon the following conclusion:

Conclusion 3/3 – Identification of matters needing action by ALLPIRG

That PIRGs:

a) undertake additional work items identified by Council as part of the follow-up to the World-wide CNS/ATM Systems Implementation Conference, such as those shown in Table 3-1;

b) organize and conduct their work in such a way that all such matters needing action by ALLPIRG (including those shown in Table 3-1) be identified, documented and communicated in the most expeditious manner; and

c) take advantage of the ALLPIRG forum to resolve problems they have identified.

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AGENDA ITEM 4: FINANCING ISSUES

4.1 Noting that financial and cooperative issues have become a major factor in the implementation of airport and air navigation facilities, the meeting considered ICAO policy, guidance material and direct assistance provided on such issues. These include advice on organizational aspects, financing, cost recovery and charges collection, as well as cost/benefit analysis and the development of business cases. These subjects will be focussed upon at the Conference on the Economics of Airports and Air Navigation Services to be held in Montreal from 19 to 28 June 2000.

4.2 The meeting noted that the main impediment to adequate cost recovery in many States was the lack or absence of proper cost identification procedures or charging mechanisms.

4.3 Support was expressed for the establishment of multinational cooperative ventures for the provision of air navigation services at the regional level, notably through means of existing economic groupings of States. The identification of situations where the establishment of such ventures would be effective should take place under the auspices of the PIRGs, but the issue of the extent of the commitment required by the States concerned to a venture and its financing would need to be addressed at a higher policy level.

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AGENDA ITEM 5: INTERREGIONAL COORDINATION AND HARMONIZATION MECHANISM

5.1 Uniform methodology for assessing air navigation shortcomings and deficiencies

5.1.1 The meeting recalled that ALLPIRG/2, by its Conclusion 2/15, had endorsed a methodology to be uniformly applied in all ICAO Regions by States, PIRGs, ICAO Regional Offices and user organizations for identification, assessment and reporting of air navigation shortcomings and deficiencies. Following a review by the ICAO Air Navigation Commission and further refinement, on 23 June 1998 the ICAO Council approved the methodology. The meeting noted the approved methodology which is at Appendix A to the report on this agenda item.

5.1.2 The meeting also noted that the approved uniform methodology had been brought to the attention of ICAO States and international organizations, as well as to the attention of all of the ICAO PIRGs. The PIRGs regularly include in the agenda for their meetings an item on the review of identified air navigation shortcomings and deficiencies for safety assessment and reporting to the ICAO Air Navigation Commission and Council.

5.1.3 The meeting noted that the ICAO Regional Offices have always been actively involved in identifying air navigation shortcomings and deficiencies and discussing them with the States concerned for resolution. However, the newly approved uniform methodology better presents the results of this activity.

5.1.4 The meeting expressed satisfaction with the methodology that is now in place but reiterated that the PIRGs should keep it under regular review and, if any modification is needed thereto as a result of experience or developments, an appropriate proposal should be made to the Council for its updating.

5.1.5 The meeting noted individual oral reports by the ICAO Regional Directors in relation to the use of the uniform methodology in the region concerned. In this relation, the meeting noted that in some regions improvement was needed in the full application of the uniform methodology by States and/or user organizations. In view of the foregoing, the meeting agreed on the following conclusions:

Conclusion 3/4 – Regular review of the uniform methodology

That the ICAO PIRGs keep the uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies under regular review and propose modifications thereto if needed in the light of experience gained.

Conclusion 3/5 – Need for complete use of the uniform methodology

That States and international organizations be urged to apply the uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies completely and effectively so that the objectives of the methodology are fully achieved.

5.1.6 The meeting also recognized that any case of air navigation shortcomings and deficiencies that affect the interface areas between ICAO Regions would potentially have a more adverse effect on safety. Therefore, such cases need urgent attention and a common approach by the regional offices concerned. In this regard, the meeting developed the following conclusion:

Conclusion 3/6 – Shortcomings and deficiencies affecting neighbouring region(s)

That air navigation shortcomings and deficiencies which affect neighbouring region(s) should receive urgent attention by the ICAO Regional Office(s) concerned similar to serious cases mentioned in paragraph 6.2 of the uniform methodology.

5.1.7 The meeting also noted that many cases of shortcomings and deficiencies are related to the airports. The meeting was of the opinion that the process of certifying airports would be helpful to identify such shortcomings and deficiencies to improve the safety of flight operations at airports. It was noted that certification of airports is in ICAO's technical work programme.

5.1.8 In reviewing the result of application of the uniform methodology by various PIRGs, the meeting noted the comments of the European Air Navigation Planning Group (EANPG) that, with reference to paragraph 1.3 of the uniform methodology, in addition to the regional air navigation plans, the PIRGs should also conduct regular reviews of the ICAO provisions [Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS), Supplementary Procedures (SUPPs) and Statements of Basic Operational Requirements and Planning Criteria and Methods of Application (RCMs)] to ascertain their validity, regional applicability and degree of implementation as an additional source for identification of shortcomings.

5.2 Harmonization of regional basic ANP and FASID

5.2.1 *Progress made with the development of basic ANP and FASID documents*

5.2.1.1 The meeting recalled ALLPIRG/2 Conclusions 2/16 [Assistance by PIRGs for preparation of basic air navigation plan (ANP) and Facilities and Services Implementation Document (FASID) documents] and 2/17 (Priority by ICAO to maintain basic ANP and FASID documents) and noted the Secretariat's report on the follow-up of those conclusions.

5.2.1.2 The meeting noted that, in the Asia and Pacific (ASIA/PAC) and Middle East (MID) Regions, draft basic ANP and FASID publications had been prepared by the related task forces and would be presented to the next meetings of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG), respectively.

5.2.1.3 In the Africa-Indian Ocean (AFI) Region, the basic AFI ANP and AFI FASID publications would be prepared in June 1999 by the AFI Planning and Implementation Regional Group (APIRG).

5.2.1.4 As for the Caribbean and South American (CAR/SAM) basic ANP and FASID, they are being prepared by a GREPECAS task force for review by the Third CAR/SAM Regional Air Navigation Meeting, to be held in October 1999.

5.2.1.5 With regard to the European (EUR) Region, the meeting noted that a new edition of the conventional EUR ANP had recently been published. This publication will be used to create the EUR basic ANP and FASID documents, for endorsement by the EANPG as soon as possible. Therefore, the EUR basic ANP and FASID will contain only material already approved by the Council and thus will not require consultation with States. The matters of substance affecting the contents of basic ANP and FASID material respectively will be processed in accordance with the Council-approved procedures for the amendment of these documents.

5.2.1.6 The meeting noted that, although, by and large, the planning methodology in different ANPs is similar, the formats of the ANPs have evolved somewhat independently and, therefore, differently for most regions. The task of dividing the existing ANPs now being undertaken is thus clearly an opportunity to align, as far as possible and practicable, the presentation of the planning material for each region and thus satisfy the Council's call for uniformity. In view of this, the ASIA/PAC basic ANP and FASID publications prepared by the APANPIRG Task Force is being used as an initial model in other ICAO Regions. The meeting also noted that, as part of an evolutionary process, the forthcoming CAR/SAM Regional Air Navigation (RAN) Meeting would aim to develop a new structure for the basic ANP and FASID publications to serve as a future model.

5.2.2 *Air navigation planning data bases*

5.2.2.1 The meeting noted that ALLPIRG/2 had endorsed a plan proposed by the Secretariat (that was later approved by the Council) to proceed with the creation and maintenance of an air navigation planning data base that would support ICAO work in the areas of:

a) development and updating of new regional ANPs and FASIDs;

b) integration of regional CNS/ATM plans into the new ANPs/FASIDs;

c) CNS/ATM planning and implementation;

d) air navigation shortcomings and deficiencies;

e) planning homogeneous ATM areas; and

f) the development of business cases in the context of the work of PIRGs.

5.2.2.2 It was informed on progress being made with this work, which was proceeding in conjunction with a larger ICAO initiative related to aeronautical data bases in general that was being undertaken by the Aeronautical Information and Charts (AIS/MAP) Section of the ICAO Air Navigation Bureau (ANB), on which information was also provided. The meeting noted with satisfaction that progress was being made on both these fronts and that finalized products were expected during the year 2000.

5.2.2.3 The meeting also noted that the existence of a data base containing information for all the ANPs would offer further opportunities for improvements in their maintenance and timely updating. It was expected that the data base access that the Organization was planning to make available would constitute an important working tool for regional offices, PIRGs and their sub-groups in the context of their regional planning activities.

5.3 **Expanded role of PIRGs for participation of financial institutions in PIRG meetings**

5.3.1 On the question of the role of and support for PIRGs in addressing economic issues, the meeting discussed various approaches to cost-benefit analysis of planned facilities and services, and the subsequent development of business cases to justify investments, including input from and coordination with financial institutions.

5.3.2 The meeting noted that there were significant differences amongst the various homogeneous air traffic management regions in terms of technical and economic development of their aviation systems. In some regions, the economic imperative was basic because resources were severely limited and investment in aviation therefore not necessarily the highest priority. An additional factor in some cases was low traffic density, which effectively precluded financially self-supporting provision of air navigation services. These disparities could result in significant differences in requirements which should be taken into consideration.

5.3.3 It was felt that in some regions the economic aspects of planning were already adequately catered for, but that in others there was a fundamental need for additional input which had to be backed up with resources and expertise which were not presently available. In particular, assistance would be required from ICAO in the development of cost-benefit analyses and subsequent business plans. The avenues of such assistance and support could include, *inter alia*, the Technical Cooperation programme and the development of a uniform methodology to be used in developing such analyses and plans.

5.3.4 The meeting concluded that, while safety and technical issues will continue to be the drivers of ICAO's air navigation planning process, the aspect of economic assessment should be given due attention, particularly in the evaluation of different implementation options. This is recognized in ICAO's Strategic Action Plan, which calls for "Development of more routine assessment of economic aspects during

development of technical requirements for aircraft, airport and air navigation facility certification and operation", and should be accommodated in a 'master plan' approach to regional air navigation planning. The guidelines for regional air navigation plans already encompass financial aspects, notably as regards multinational facilities and services, and hence the PIRGs already have implicit authority to consider financial matters. However, the terms of reference of the PIRGs, which differ to a lesser or greater extent from region to region, do not explicitly mention the economic considerations, and ALLPIRG felt there would be value in including appropriate text in these terms of reference.

5.3.5 The meeting consequently agreed on the following conclusion:

Conclusion 3/7 – Addition to terms of reference of PIRGs

That the Council agree to the explicit inclusion of economic matters in the terms of reference of PIRGs by the introduction of text along the following lines (to be adapted for each PIRG to fit in with its current terms of reference at appropriate place or places):

"In facilitating implementation of facilities and services identified in the regional air navigation plan and with due regard to the primacy of safety, the [PIRG concerned] should take into account the costs and benefits of implementation options and the need to facilitate financing of preferred options ... . With regard to multinational facilities and cooperative activities the [PIRG concerned] may wish to use an appropriate mechanism to prepare cost/benefit analyses and business cases, and to provide related guidance material in support of "prototype" sets of planned facilities and services ... . At its discretion, the [PIRG concerned] may invite financial institutions, as required on a consultative basis and at a time it considers appropriate in the planning process, to participate in this work."

5.3.6 It was understood by ALLPIRG that the "appropriate mechanism" referred to in the above conclusion would vary from region to region depending on the circumstances and could include, for example, the relevant Traffic Forecasting Group with expanded terms of reference, the CNS/ATM Implementation Coordination Sub-group with participation of economic experts, use of another existing mechanism or the establishment of a new sub-group.

5.4 Status of implementation of WGS-84

5.4.1 The meeting recalled ALLPIRG/2 Conclusions 2/7 (Regular updates to show the regional picture of WGS-84 implementation) and 2/8 (Further assistance to States for WGS-84 implementation) and noted a report presented by the Secretariat on the status of follow-up of those conclusions.

5.4.2 The meeting noted that, as a result of ALLPIRG/2 Conclusion 2/7, the ICAO planning and implementation regional groups continued to review the status of implementation of WGS-84 in their respective regions and reported the outcome to the ICAO Air Navigation Commission and Council. The reports showed that increased attention by States was needed; therefore, States were urged to increase their efforts for implementation of WGS-84.

5.4.3 The meeting also noted that the ICAO ANC had reviewed the status of implementation of WGS-84 as of 1 November 1998. The review showed that States had increased their efforts in the implementation of WGS-84 and some progress had been achieved.

5.4.4 As for the latest situation regarding the implementation of WGS-84, the meeting noted the status in all ICAO Contracting States as of 15 March 1999, as shown in Appendix B to the report on this agenda item. This review showed that further progress had been made in all ICAO Regions. Table 5-1 illustrates the progress of implementation of WGS-84 as of 15 March 1999.

		AT ALLPIRG/2[1]	15 MARCH 1999
1	Percentage of States that have fully implemented WGS-84	23 %	28 %
2	Percentage of States that have partially implemented WGS-84 and work is in progress	7 %	28 %
3	Percentage of States where implementation of WGS-84 is underway	30 %	31 %
4	Percentage of States that have a plan for implementing WGS-84 at a future date	17 %	3 %
5	Percentage of States that have no known plan or have not responded to the survey	23 %	10 %

Table 5-1. Status of implementation of WGS-84 as at 15 March 1999

5.4.5 As can be seen from Table 5-1, noticeable progress has been made by States in full implementation, partial implementation or in proceeding with an implementation plan for WGS-84. Furthermore, a decrease of percentage against part 4 above indicates that many of the States that had plans to implement WGS-84 at a date in the future have already commenced or completed their plans. The decrease of percentage in part 5 of the above table also confirms that awareness of the importance of implementation of WGS-84 has increased.

5.4.6 The meeting also noted that, in response to ALLPIRG/2 Conclusion 2/8 (Further assistance to States for WGS-84 implementation), ICAO conducted special implementation projects (SIPs) in the AFI Region, the CAR/SAM Regions, as well as an AIS/MAP workshop in the Commonwealth of Independent States, where awareness of implementation of WGS-84 was increased.

5.4.7 Furthermore, the ICAO Regional Offices will continue to facilitate the work of those States which wish to provide assistance to other States. In this connection, the Kingdom of the Netherlands and the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) have provided assistance to certain States of the AFI Region. In some cases, the assistance by the Kingdom of the Netherlands has been with support from the United States. It was further added that the United States has extended similar assistance with the implementation of WGS-84 coordinates to a few States in the CAR/SAM Regions.

5.4.8 The meeting noted that assistance to States by ICAO as well as by other States who are in a position to do so was very helpful. The meeting therefore developed the following conclusion:

Conclusion 3/8 – States assist other States for implementation of WGS-84

That ICAO and those States in a position to do so be urged to provide assistance to other States which need assistance in the implementation of WGS-84.

5.4.9 The meeting also noted oral reports by ICAO Regional Directors with regard to the regional picture of WGS-84 implementation. The reports indicated that progress of implementation was generally satisfactory. The reports also indicated that some States were still facing technical difficulties in the implementation of WGS-84, e.g. technical difficulties expressed by some AFI States for proper interpretation

[1]Information was current as of 29 January 1998

of results of surveys (particularly the vertical element) and the difficulty expressed by Sweden in footnote number 16, on page 8 of Appendix B to the report on this agenda item. In this relation, the meeting developed the following conclusion:

Conclusion 3/9 – Advice to States on technical difficulties in implementation of WGS-84

That ICAO Regional Offices obtain information from States which have not fully implemented WGS-84 as to what technical difficulties they are facing and provide advice to those States as a matter of priority.

5.5 **Interregional extension of the pilot project on CNS/ATM implementation**

5.5.1 The meeting had available the latest draft report of a special implementation project initiated by ALLPIRG/2 that consisted of developing a CNS/ATM regional planning methodology, elaborating guidelines on a business case and applying them to one major traffic flow defined in the CAR/SAM Regions. It was hoped that the work done in the CAR/SAM Regions would have wider application and, if it proved successful, could be adopted, in whole or in part, by other PIRGs for application in their regions.

5.5.2 The SIP report spelled out the objective of the planning methodology being developed, which was to "provide a planning tool, applicable to the feasibility study of end-to-end solutions, in relevant traffic flows, within areas defined as homogeneous, and whose improvements benefit, from the operational and economic point of view, the users and as well as the service providers."

5.5.3 It also established the basic planning concepts which included:

a) practical and progressive in its implementation;

b) close coordination between the ICAO regional plan and the International Air Transport Association (IATA) user-driven plan;

c) the operational environment of the region must be recognized;

d) continuity and regional interrelations;

e) benefits must be reached according to the investment; and

f) pre-operational test, approval process and certification

and set the regional goals to:

a) increase the efficiency and safety;

b) meet the traffic growth requirements and avoiding congestion;

c) maximize the incentives for the implementation;

d) ensure the participation of all partners

e) reach positive cash flows in a reasonable time;

f) develop initiatives to modernize the systems, together with the introduction of the new technology;

g) keep the users thoroughly informed of the cost structures; and

h) define a common policy of income generation.

5.5.4 The SIP report also described the development of the regional planning methodology and covered the following areas:

a) information requirements;

b) evaluation of project need and opportunity;

c) market analysis;

d) operators' and suppliers' requirements;

e) periods of non-satisfaction of demand;

f) traffic forecasts;

g) technical analysis; and

h) cost/benefit analysis (CBA);

i) investments, costs and benefits;

5.5.5 The planning environment was identified as those requirements associated with the ATM en-route and terminal areas (services provider and users) and the study limitations included not taking into account social benefits, saving of passengers' time and any indirect economic benefits to the industry.

5.5.6 The SIP report also developed guidance on the preparation of business case studies and covered the following elements:

a) demand and supply of services;

b) operators' requirements;

c) providers' requirements; and

d) development of options project

and it set the objectives of the study as follows:

Objective No. 1 (for the year 2001)

"To apply 10 minutes or 80 NM of longitudinal separation, along the Santiago-Lima-Miami-Lima-Santiago and intermediate points of traffic merging"

Objective No. 2 (for the year 2008)

"To apply 5 minutes or 40 NM of longitudinal separation, along the Santiago-Lima-Miami-Lima-Santiago and intermediate points of traffic merging"

Objective No. 3 (for the year 2014)

"To apply radar separation and/or 1000 feet of minimum vertical separation above FL 290 along the Santiago-Lima-Miami-Lima-Santiago and intermediate points of traffic merging in accordance with RVSM project of ICAO"

5.5.7 The report included a cost/benefit analysis on the basis of these objectives and used the methodology recommended by ICAO in its Circular 257 to demonstrate the economical advantage of the project case constituted by the CNS/ATM implementation option retained.

5.5.8 It was agreed that ALLPIRG could draw a number of conclusions from the results of the SIP and that there was perhaps a need for PIRGs, in their planning efforts, to:

a) confirm the concept that, in order that the plans and programmes be viable, they should be prepared based on the management view of technological alternative and economical feasibility;

b) involve experts in the areas of finance and economics, who might execute assessments of specific projects and be capable of understanding the global CNS/ATM and flight safety concepts;

c) establish and organize flows of information required to support business studies;

d) ensure strong participation of the industry, which should provide basic information of operational costs in order to define social and private profitability; and

e) encourage States to create their own CNS/ATM planning mechanism, including the economic factors, to enable their national plans to also reflect the structure of financable projects by the economic community.

5.5.9 Finally, the results of the SIP confirmed the need for PIRGs to lay more emphasis on a business-like planning approach advocated by ALLPIRG/2 Conclusions 2/9 and 2/10 with a consequent change to PIRGs' terms of reference. The meeting noted that such changes had been developed by the meeting under Agenda Item 5.3.

5.5.10 ALLPIRG was also informed that GREPECAS had, in November 1998, received an interim report on the SIP and had noted with satisfaction the emergence of a regional planning methodology and business-case development guidance that had been implemented for one of the major traffic flows identified by that group. The planning methodology identifies the ATM evolution according to the users' need, the determination of the best CNS elements according to the ATM requirements and a timetable for their implementation in a homogeneous area, and translates them into an action plan for the implementation (and decommissioning) of specific CNS facilities and services.

5.5.11 The meeting was further advised that it had been decided to extend the application and scope of the methodology to validate the ATM evolution and the CNS implementation options, including the CNS/ATM Action Plan for the CAR/SAM Regions, and to develop the business case accordingly by using resources available through the Regional Technical Co-operation Project RLA/98/003, among other arrangements. It noted that GREPECAS had defined 8 homogeneous areas and 18 major traffic flows and, as some flows crossed and some areas overlapped, the methodology would need to ensure that this would be taken into account in the overall regional planning scheme.

5.5.12 This CAR/SAM initiative comprised the following elements:

a) training of a dedicated Project Team in the CNS, ATM and Air Transport Economics (ATE) aspects of the methodology;

b) identification of State groupings and user involvement for each traffic flow area;

c) offering the CAR/SAM States training in the CNS, ATM and ATE fields;

d) development of a time table of actions to be carried out by States teams to apply the planning methodology and complete the business cases;

e) application of the planning methodology to main traffic flows;

f) assistance to States and users in completing tasks in the time table of actions, including the collection of data for each traffic flow area and the planning for terminal areas;

g) development of guidance for exploration of financing options;

h) coordination and provision of assistance to the regional harmonization process;

i) consolidation and improvement of all proposals relating to financing; and

j) development of proposals to formalize the above arrangements for future joint application by GREPECAS and Technical Cooperation mechanisms.

5.5.13 Having noted the planned extension of the SIP methodology to the rest of the CAR/SAM Regions, ALLPIRG was invited to consider whether the GREPECAS approach for the application of the SIP methodology to other regions and PIRGs was appropriate. In that regard, it was presented with a proposal from the Secretariat, which suggested that the potential tools provided in the regional planning methodology and guidance on business-case development from the SIP work could be employed in a new planning approach which would put increased emphasis on subregional and interregional elements.

5.5.14 That proposal had been developed in order to respond to the recommendations emerging from the World-wide CNS/ATM Systems Implementation Conference (1998) which called for greater emphasis on subregional CNS/ATM activities and in response to the fact that, as PIRGs based their planning on major traffic flows and homogeneous areas, more interregional issues were arising. This would be particularly important if it was thought that the seamlessness and inter-operability of CNS/ATM systems implementation required an end-to-end evaluation of major traffic flows. In this regard, it was noted that most of the major traffic flows established by GREPECAS actually extended beyond the boundaries of the CAR/SAM Regions for which it had responsibility.

5.5.15 The idea that bringing together groupings of those States involved in each major interregional traffic flow, and therefore from different regions, might be approached on a systematic basis was put forward as one way of achieving the standardized approach recommended by ALLPIRG/2. However, the meeting felt that other less formal options for improving interregional coordination existed and that these should be implemented first. On the other hand, the meeting did agree that guidance material should be developed by the Secretariat on subregional and interregional methodologies to fill the gap that existed between existing ICAO material applicable to regional and national planning levels. It noted, in that regard, the valuable contribution from the SIP work which could now be reviewed and evaluated by each region.

5.5.16 In reviewing options for improved interregional harmonization, there was agreement that more lateral coordination between PIRGs at the level of their Secretaries would be most useful, as well as continued vertical contact through the ICAO Regional Affairs Office. The need to facilitate greater coordination between States and service providers and, indeed, between service providers was also cited. Noting that the CAR/SAM Regions had been able to progress with the help of an established Technical Co-operation Project in those regions, it would be of value if the Technical Co-operation Bureau could help with feasibility reports for the establishment of multi-national cooperative ventures, including implementation study reports for the approval of States concerned. Such ventures could be identified by

PIRGs and ICAO, who could also monitor their implementation. SIPs were also identified as useful tools to enhance interregional coordination,, the scope of which the meeting felt could be extended to issues such as *Supplementary Procedures* (Doc 7030) and reduced vertical separation minima (RVSM), which were considered to be beyond the definition of CNS/ATM.

5.5.17 In conclusion, the meeting agreed in general on the need to ensure that maximum flexibility would be available to the PIRGs and the regional offices which supported them so that interregional coordination and harmonization could be enhanced. In that context, the additional guidance material that would be developed by the Secretariat with regard to subregional and interregional planning methodologies would be welcomed by PIRGs and regional offices, it being understood that they would have the freedom to apply that guidance in the light of their regional specificities. The Headquarters function of regional coordination and monitoring would be adjusted to reflect this increased emphasis on sub- and interregional activities.

5.5.18 In light of the above, the meeting formulated the following conclusion to reflect its increased commitment to inter-regional harmonization:

Conclusion 3/10 – Increasing emphasis on interregional and subregional planning for CNS/ATM

That, with a view to increasing emphasis on interregional and subregional planning for CNS/ATM, ICAO:

a) develop methodologies for subregional and interregional planning of CNS/ATM systems as guidance material for PIRGs;

b) in completing a) above, account be taken of the work carried out in the CAR/SAM Regions as a result of the special CNS/ATM implementation project, as well as of existing regional activities with regard to the implementation of CNS/ATM systems; and

c) encourage and strengthen lateral interregional coordination at the level of Secretaries of PIRGs.

5.6 Interregional input for the CAR/SAM/3 RAN Meeting

5.6.1 The meeting was informed that the Council had agreed to convene a full-scale regional air navigation meeting for the CAR/SAM Regions in October 1999. This RAN meeting (CAR/SAM/3) would be the first to develop an air navigation plan in the new format of basic ANP and FASID publications, as well as integrating the CAR/SAM regional CNS/ATM plan into them. It was noted that attendance at the RAN meeting would comprise a number of user States from outside the CAR/SAM Regions and that their contributions would constitute valuable input on interregional issues.

5.6.2 ALLPIRG further noted that two of the main additional thrusts of CAR/SAM/3 would be related to CNS/ATM implementation and to the elimination of shortcomings and deficiencies in the air navigation field. It was also advised that, although the main task of CAR/SAM/3 would be the updating of the CAR/SAM ANP, it was expected that the RAN meeting would be invited to deal with matters emerging from ALLPIRG work relating to the role and scope of ICAO's planning and implementation regional groups, including changes to GREPECAS' terms of reference. It was also noted that CAR/SAM/3 would be invited to comment on the value of conventional RAN meetings themselves in the context of efforts being explored by the ANC and Council to streamline the regional planning process.

5.7 Y2K date change preparations

5.7.1 The ICAO Secretariat and the International Air Transport Association provided the meeting with a presentation on the status of the ICAO and IATA Year 2000 (Y2K) programmes, as well as on

progress made jointly by the two organizations. The presentation reviewed progress made to date while focussing on the main projects that were being addressed, which included a joint ICAO/IATA action programme, activities carried out in follow-up to Assembly Resolution A32-10, the development of a Y2K readiness assessment report and work on contingency planning. The meeting noted that the programmes had raised awareness of the Y2K problem, collected data and provided information to States, and were now focussing on contingency planning and sharing of information.

5.7.2 The meeting was informed of the progress made on contingency planning at the regional level through working papers and presentations by the ICAO Regional Directors and ASECNA. The meeting noted that substantial actions were being taken by the ICAO Regional Offices and the PIRGs in respect of Y2K preparations and contingency planning. The meeting also took note of the information and proposals provided by IATA. The view was expressed that the level of activity for contingency planning should be elevated equally across all regions and that regional Y2K measures should be accorded high priority supported by appropriate resources. In finalizing its deliberations on this item, the meeting agreed on the following conclusions:

Conclusion 3/11 – Support of Y2K efforts

That ICAO Regional Offices and PIRGs:

a) support global contingency planning efforts and, noting the very short time in hand, make concerted efforts to take full advantage of the common experience in developing contingency plans by sharing information;

b) work to ensure that States issue appropriate aeronautical information by 1 July 1999;

c) support the ICAO/IATA Action Programme;

d) urge States to publish contingency planning measures not later than 12 August 1999; and

e) use the in-flight broadcast procedure (IFBP) and the traffic information broadcast by aircraft (TIBA) for temporary activation as part of the contingency planning process in areas of low traffic density.

Conclusion 3/12 – Y2K follow-up activities

That the Secretary General:

a) issue a State letter advising States not to use the 9 September 1999 and 30 December 1999 AIRAC dates;

b) develop and circulate an appropriate standard format for States to use for the publication by 1 July 1999 of appropriate aeronautical information on their Y2K compliance in accordance with Assembly Resolution A32-10; and

c) further investigate the capability of the AFTN to support operations during the Y2K transition period and other critical dates.

5.8 **ICAO position for WRC-2000**

5.8.1 The meeting discussed the need for strong support of the ICAO position at the forthcoming International Telecommunication Union (ITU) World Radiocommunication Conference (2000), (WRC-2000), on the basis of papers presented by the Secretariat, the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the United States.

5.8.2 The meeting was informed that WRC-2000, planned to be held in Istanbul, Turkey, from 8 May to 2 June 2000, will discuss a number of proposals which could have a serious impact on the way aeronautical requirements for radiofrequency (RF) spectrum will be met, due to the growing level of competition from other users.

5.8.3 In light of the growing role of regional telecommunications organizations in the preparation to ITU conferences, the meeting recognized the essential role of regional and interregional aviation activities in supporting the aviation requirements for RF spectrum. In particular, the key role of regional planning groups, in coordination with civil aviation authorities, in presenting the ICAO position in the regional fora where preparation for WRC-2000 is conducted and in promoting its incorporation into the proposals submitted by States to WRC-2000 was reaffirmed.

5.8.4 The meeting was informed of the significant efforts in support of the ICAO position undertaken by EUROCONTROL, IATA and regional planning groups. It was concluded that, while progress was being made by aviation in the preparation of WRC-2000, sustained commitment at the highest level should be sought, in addition to thorough technical preparation, in order to ensure that the safety-related concerns and the economic needs of civil aviation be given adequate recognition at WRC-2000.

5.8.5 The meeting was provided information on the rationale for the selection of a new civil frequency for aeronautical safety-of-life applications of the global positioning system (GPS). It was noted that the Global Navigation Satellite Systems Panel (GNSSP) would review the related technical information at their third meeting, to be held in Montreal from 12 to 23 April 1999.

5.8.6 On the basis of the information presented in the papers and in the course of the discussion, the meeting agreed to the following conclusion:

Conclusion 3/13 – Support for the ICAO position at WRC-2000

That:

a) the utmost importance of securing in a coordinated manner the protection of aeronautical radiofrequency spectrum should be recognized, particularly with regard to the International Telecommunication Union (ITU) World Radiocommunication Conference (2000) (WRC-2000);

b) the need of securing adequate radio frequency spectrum allocations to guarantee the safety of air navigation should be brought to the attention of States at the highest level;

c) the progress in the implementation of ALLPIRG/2 Conclusion 2/20, a), b), c), d) and g) should be noted;

d) the continuing urgency of ALLPIRG/2 Conclusion 2/20, a) e), f) and g) should be reaffirmed; and

e) the information material provided to the meeting with regard to the ICAO position for the ITU WRC-2000 and ICAO Assembly Resolution A32-13 should be used to promote consideration of the proposed ICAO position for incorporation into national proposals to WRC-2000.

5.9 **Environmental benefits of CNS/ATM systems**

5.9.1 It was noted that implementation of CNS/ATM systems could bring substantial environmental benefits to the global community due to a reduction in fuel burn. The meeting was informed that some ATM strategies already included the environmental issues as an objective of the CNS/ATM

implementation plans. The meeting agreed that a similar element could be included in the *Global Air Navigation Plan for CNS/ATM Systems.*

5.9.2 The meeting welcomed the ongoing efforts of the Committee on Aviation Environmental Protection (CAEP) towards the development of a methodology for the quantification of potential benefits produced by the implementation of CNS/ATM systems. The meeting also recognized the importance of adopting a common methodology which would enable the inclusion of the specificities of each region in the respective regional plans whilst establishing a uniform basis for the environmental assessment.

5.9.3 It was agreed that the Council would consider giving this task the necessary priority in the work of CAEP to enable the development of a preliminary methodology to be used in the business cases until the results of a global assessment methodology of the CNS/ATM environmental benefits is delivered in its final form for inclusion in the *Global Air Navigation Plan for CNS/ATM Systems.*

5.9.4 The meeting agreed that information concerning the environmental benefits associated with the implementation of CNS/ATM systems should be included in the global plan at the earliest opportunity while noting that steps have already been taken by the Secretariat.

Conclusion 3/14 – Cooperation with ICAO/CAEP work

That ICAO/CAEP expedite its work on the development of a preliminary methodology for the assessment of the environmental benefits associated with the implementation of CNS/ATM systems to be applied by PIRGs in the earliest opportunity in the analysis of the business cases, while waiting for the final methodology to be incorporated as part of a new chapter in Volume I of the *Global Air Navigation Plan for CNS/ATM Systems.*

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APPENDIX A

UNIFORM METHODOLOGY FOR THE IDENTIFICATION, ASSESSMENT AND REPORTING OF AIR NAVIGATION SHORTCOMINGS AND DEFICIENCIES

(Approved by the Council on 23 June 1998)

1. Introduction

1.1 Based on the information resulting from the assessment carried out by ICAO on the input received from various regions regarding shortcomings and deficiencies in the air navigation field, it became evident that improvements were necessary in the following areas:

a) collection of information;

b) safety assessment of reported problems;

c) identification of suitable corrective actions (technical/operational/financial/ organizational), both short-term and long-term; and

d) method of reporting in the reports of ICAO planning and implementation regional groups (PIRGs).

1.2 This methodology is therefore prepared with the assistance of ICAO PIRGs and is approved by the ICAO Council for the efficient identification, assessment and clear reporting of air navigation shortcomings and deficiencies. It may be further updated by the Air Navigation Commission in the light of the experience gained in its utilization.

1.3 For the purpose of this methodology, a situation where a facility is not installed or a service is not provided in accordance with a regional air navigation plan is considered to be a shortcoming. A situation where an existing facility or service is partially unserviceable, incomplete or not operated in accordance with appropriate ICAO specifications and procedures is considered to be a deficiency. The net effect of either a shortcoming or a deficiency is a negative impact on safety, regularity and/or efficiency of international civil aviation.

2. Collection of information

Regional office sources

2.1 As a routine function, the regional offices are expected to maintain a list of specific shortcomings and deficiencies, if any, in their regions. To ensure that this list is as clear and as complete as possible, it is understood that the regional offices take the following steps:

a) compare the status of implementation of the air navigation facilities and services with the regional air navigation plan documents and identify facilities, services and procedures not implemented;

b) review mission reports with a view to detecting shortcomings and deficiencies that affect safety, regularity and efficiency of international civil aviation;

c) make a systematic analysis of the differences with ICAO Standards and Recommended Practices filed by States to determine the reason for their existence and their impact, if any, on safety;

d) review aircraft accident and incident reports with a view to detect possible systems or procedures deficiencies;

e) review inputs, provided to the regional office by the users of air navigation services on the basis of Assembly Resolution A31-5, Appendix M;

f) assess and prioritize the result of a) to e) according to paragraph 4;

g) report the outcome to the State(s) concerned for resolution; and

h) report the result of g) above to the related PIRG for further examination, advice and report to the ICAO Council, as appropriate through PIRG reports.

States sources

2.2 To collect information from all sources, States should, in addition to complying with the Assembly Resolution A31-10, establish reporting systems in accordance with the requirements in Annex 13, paragraph 7.3. These reporting systems should be non-punitive in order to capture the maximum number of deficiencies.

Users sources

2.3 Appropriate international organizations, including IATA and IFALPA are valuable sources of information on shortcomings and deficiencies, especially those that are safety related. In their capacity as users of air navigation facilities they should identify facilities, services and procedures that are not implemented or are unserviceable for prolonged periods or are not fully operational. In this context it should be noted that Assembly Resolution A31-5, Appendix M and several decisions of the Council obligate users of air navigation facilities and services to report any serious problems encountered due to the lack of implementation of air navigation facilities or services required by regional plans. It is emphasized that this procedure, together with the terms of reference of the PIRGs should form a solid basis for the identification, reporting and assisting in the resolution of non-implementation matters.

3. Reporting of information on shortcomings and deficiencies

3.1 In order to enable the ICAO PIRGs to make detailed assessments of shortcomings and deficiencies, States and appropriate international organizations including IATA and IFALPA, are expected to provide the information they have to the ICAO regional office for action as appropriate, including action at PIRG meetings.

3.2 The information should at least include: description of the shortcoming and deficiency, risk assessment, possible solution, time-lines, responsible party, agreed action to be taken and action already taken.

3.3 The agenda of each PIRG meeting should include an item on air navigation shortcomings and deficiencies, including information reported by States, IATA and IFALPA in addition to those identified by the regional office according to paragraph 2.1 above. Review of the shortcomings and deficiencies should be a top priority for each meeting. The PIRGs, in reviewing lists of shortcomings and deficiencies, should make an assessment of the safety impact for subsequent review by the ICAO Air Navigation Commission.

3.4 In line with the above, and keeping in mind the need to eventually make use of this information in the planning and implementation process, it is necessary that once a shortcoming or deficiency has been identified and validated, the following fields of information should be provided in the reports on shortcomings and deficiencies in the air navigation systems. These fields are as follows and are set out in the reporting form attached hereto.

a) Identification of the requirements

As per ICAO procedures, Regional Air Navigation Plans detail *inter alia* air navigation requirements including facilities, services and procedures required to support international civil aviation operations in a given region. Therefore, shortcomings or deficiencies would relate to a requirement identified in the regional air navigation plan documents. As a first item in the shortcoming/deficiency list, the requirements along with the name of the meeting and the related recommendation number should be included. In addition, the name of the State or States involved and/or the name of the facilities such as name of airport, FIR, ACC, TWR, etc. should be included.

b) Identification of the shortcoming or deficiency

This item identifies the shortcoming or deficiency and would be composed of the following elements:

i) a brief description of the shortcoming or deficiency;

ii) date shortcoming or deficiency was first reported;

iii) Status of implementation; ie, S = shortcoming

D = deficiency

iv) appropriate important references (Meetings, Reports, Missions, etc)

c) Identification of the corrective actions

In the identification of the corrective actions, this item would be composed of:

i) a brief description of the corrective actions to be undertaken;

ii) identification of the executing body;

iii) expected completion date of the corrective action*; and

iv) when appropriate or available, an indication of the cost involved.

4. **Assessment and prioritization**

4.1 A general guideline would be to have three levels of priority organized on the basis of safety, regularity and efficiency assessment as follows:

"U" priority = **Urgent** requirements having a **direct** impact on **safety** and requiring **immediate** corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

*It should be noted that a longer implementation period could be assigned in those cases in which the expansion or development of a facility was aimed at serving less frequent operations or entailed excessive expenditures.

"A" priority = **Top priority** requirements **necessary** for air navigation **safety**.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

"B" priority = **Intermediate** requirements **necessary** for air navigation **regularity and efficiency**.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

5. Model reporting table for use in the reports of PIRGs

5.1 Taking the foregoing into account, the model table at the Appendix is for use by PIRGs for the identification, assessment, prioritization etc. of shortcomings and deficiencies. It might be preferred that a different table would be produced for each of the different topics i.e. AGA, ATM, SAR, CNS, AIS/MAP, MET. However, all tables should be uniform.

6. Action by the regional offices

6.1 Before each PIRG meeting, the regional office concerned will provide advance documentation concerning the latest status of shortcomings and deficiencies.

6.2 It is noted that the regional offices should document serious cases of shortcomings and deficiencies to the Air Navigation Commission (through ICAO Headquarters) as a matter of priority, rather than waiting to report the matter to the next PIRG meeting and that the Air Navigation Commission will report to the Council.

REPORTING FORM ON AIR NAVIGATION SHORTCOMINGS AND DEFICIENCIES IN THE .... FIELD IN THE .... REGION

Identification		Shortcomings and deficiencies				Corrective action			
Requirements	States/facilities	Description	Date first reported	Implementation status (S, D)*	Remarks	Description	Executing body	Date of complete	Priority for action**
Requirement of Part .., paragraph (table) .. of the air navigation plan	Terra X Terra Y	Speech circuits not implemented Villa X - Villa Y	12/02/9X	S	Co-ordination meeting between Terra X and Terra Y on 16/07/9X to finalize arrangements to implementation circuit via satellite	Implementation of direct speech circuit via satellite	Terra X	August 199X	A

*S = shortcoming D = deficiency

** Priority for action to remedy the shortcoming is based on the following safety assessments:

"U" priority = **Urgent** requirements having a **direct** impact on **safety** and requiring **immediate** corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

"A" priority = **Top priority** requirements **necessary** for air navigation **safety**.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

"B" priority = **Intermediate** requirements **necessary** for air navigation **regularity and efficiency**.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

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APPENDIX B

STATUS OF IMPLEMENTATION OF WGS-84 AS OF 15 MARCH 1999

STATUS OF IMPLEMENTATION OF WGS-84 AS OF 15 MARCH 1999					
STATE	**IMPLEMENTED in FULL**	**IMPLEMENTED in PART**	**UNDER WAY (completion expected in 1999)**	**PLANNED DATE TO START**	**NO KNOWN PLAN (or no reply)**
1	2	3	4	5	6
Afghanistan	No information available due to inability to contact authorities in Kabul				
Albania					
Algeria					
Angola			(1)		
Antigua and Barbuda					
Argentina					
Armenia					(2)
Australia					
Austria					
Azerbaijan					
Bahamas					
Bahrain					
Bangladesh			(1)		
Barbados					
Belarus			(3)		
Belgium	(4)				
Belize					
Benin					
Bhutan			(5)		
Bolivia					
Bosnia and Herzegovina					
Botswana			(1)		
Brazil					

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Brunei Darussalam					
Bulgaria					
Burkina Faso					
Burundi					
Cambodia					
Cameroon					
Canada					
Cape Verde					
Central African					
Chad					
Chile					
China					(6)
Colombia					
Comoros					
Congo (Brazzaville)					
Cook Islands					
Costa Rica					
Cote d'Ivoire					
Croatia					
Cuba					
Cyprus					
Czech Republic					
Democratic People's Republic of Korea				to be advised	
Democratic Republic of the Congo					
Denmark					
Djibouti					
Dominican Republic					
Ecuador					

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Egypt					
El Salvador					
Equatorial Guinea					
Eritrea					
Estonia					
Ethiopia				April 1999	
Fiji					
Finland					
France					
Gabon					
Gambia					
Georgia					
Germany					
Ghana					
Greece					
Grenada					
Guatemala					
Guinea					
Guinea - Bissau					(7)
Guyana					
Haiti					
Honduras					
Hungary					
Iceland					
India					
Indonesia					
Iran, Islamic Republic					
Iraq					
Ireland	(4)				

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Israel					
Italy					
Jamaica					
Japan					
Jordan					
Kazakhstan					(12)
Kenya			(1)		
Kiribati					
Kuwait					
Kyrgyzstan					
Lao People's Democratic Republic					
Latvia					
Lebanon					
Lesotho			(1)		
Liberia					
Libyan Arab					
Lithuania					
Luxembourg					
Madagascar				July 1999	
Malawi			(1)		
Malaysia					
Maldives					
Mali					
Malta					
Marshall Islands					
Mauritania					
Mauritius			(1)		
Mexico			(8)		

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Micronesia, Federated States of					
Monaco					
Mongolia					
Morocco					
Mozambique			(1)		
Myanmar					
Namibia					
Nauru					
Nepal					
Netherlands, Kingdom of the	(13)				
New Zealand					
Nicaragua					
Niger					
Nigeria			(5)		
Norway					
Oman					
Pakistan				30/6/2000	
Palau					
Panama					
Papua New Guinea					
Paraguay					
Peru					
Philippines					
Poland					
Portugal	(9)				
Qatar					
Republic of Korea					

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Republic of Moldova					
Romania			(14)		
Russian Federation					
Rwanda			(1)		
Saint Lucia					
Saint Vincent and the Grenadines					
Samoa					
San Marino					
Sao Tome and Principe			(10)		
Saudi Arabia					
Senegal					
Seychelles					
Sierra Leone					
Singapore					
Slovakia					
Slovenia			(15)		
Solomon Islands					
Somalia				1999(11)	
South Africa					
Spain					
Sri Lanka					
Sudan					No reply
Suriname					
Swaziland				1999(11)	
Sweden	(16)				
Switzerland	(17)				
Syrian Arab Republic					
Tajikistan					

STATE	IMPLEMENTED in FULL	IMPLEMENTED in PART	UNDER WAY (completion expected in 1999)	PLANNED DATE TO START	NO KNOWN PLAN (or no reply)
1	2	3	4	5	6
Thailand					
The former Yugoslav Republic of Macedonia					
Togo					
Tonga					
Trinidad and Tobago					
Tunisia					
Turkey					
Turkmenistan					
Uganda			(1)		
Ukraine					
United Arab Emirates					
United Kingdom			(18)		
United Republic of Tanzania			(1)		
United States					
Uruguay					
Uzbekistan					
Vanuatu					
Venezuela					
Viet Nam					
Western Samoa					
Yemen					
Zambia			(1)		
Zimbabwe			(1)		

1) Survey completed, results to be published early in 1999.
2) Consultation with EUROCONTROL is underway for assistance.
3) Completion date is to be determined.
4) Only charts to be updated to WGS-84 and this is scheduled for completion during 1999.
5) Survey completed, data publication to be decided.
6) In Hong Kong, China, WGS-84 fully implemented.
7) Survey was to start in June 1998 but prevailing situation in the State stopped the process.
8) Survey will be carried out in 31 main aerodromes and results will be published by December 1999. Thirty-one more aerodromes will be surveyed during the year 2000.
9) In Macau, also fully implemented.
10) Survey completed under ASECNA project, date of publication of results unknown.
11) To be surveyed by the Netherlands.
12) At present, we are unable to implement WGS-84 because we work in close co-ordination with the Russian Federation and most of our documents, including charts, are published by them. Therefore, the date of implementation of WGS-84 within our territory depends on the Russian one and is not defined yet.
13) WGS-84 fully implemented since 1996 except for vertical component.
14) A significant amount of work has been done and the result published in the AIP. Completion of the work in progress, to some degree, depends on completion of field work in Bulgaria, Moldova and Ukraine.
15) Vertical elements at 3 aerodromes still not completed.
16) It has been found difficult to publish the aircraft stands with an accuracy of hundredths of seconds, as one stand may host several different aircraft types. It would be useful if ICAO make available recommendations about which position shall be surveyed.
17) Switzerland has achieved a full two dimensional (2D) WGS-84 implementation in June 1997. No vertical elements have been published yet. This will be published when 3D-GNSS or 3D-RNAV instrument approach procedures will be implemented.
18) Facilities still to be published in accordance with WGS-84:
10% of significant points on ATS routes (await publication of adjacent States' navigation aids)
20% of aerodrome navigation aids, runway thresholds, etc. (await completion of aerodrome surveys)

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AGENDA ITEM 6: TECHNICAL COOPERATION ISSUES

6.1 The Director, Technical Co-operation Bureau (D/TCB) introduced ALLPIRG/3–WP/12 and gave a summary of its chapter highlighting the role the Technical Co-operation Bureau (TCB) has played in:

a) establishing the technical assistance requirements of developing States in the field of CNS/ATM, particularly in the area of needs assessment and national planning; and

b) coordination of TCB activities in the implementation of CNS/ATM with the regional offices, the Regional Affairs Office, and other Bureaux in the Organization.

6.2 D/TCB also provided details on the projects that TCB had implemented or will be implementing in developing States with emphasis on the regional project prepared for Africa and Latin America as a sample of an effective method that ALLPIRG can utilize. In addition, he stressed the difficulty in obtaining funding for many of the CNS/ATM projects despite strong efforts to obtain funding from regional and global funding institutions.

6.3 The meeting, in considering the action paragraph, noted the information presented in the paper and supported the role of ICAO's Technical Co-operation Programme as a major factor in the implementation of CNS/ATM systems worldwide.

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AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 In consideration of the subject on the use of GNSS as sole means of navigation, the meeting was informed that:

a) the third meeting of GNSS Panel, scheduled to held in Montreal from 12 to 23 April 1999, will examine the issue of use of GNSS as a sole means of navigation taking into account the views of the ANC and the Council;

b) the ANC will review the work of the panel and present its report to the Council; and

c) the PIRGs will be informed of the final outcome of the analysis and, if necessary, the *Global Air Navigation Plan for CNS/ATM Systems* will be amended accordingly to reflect the position.

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APPENDIX

LIST OF PARTICIPANTS

Chairman – Dr. A. Kotaite

Secretary – Mr. V.D. Zubkov

President of the Air Navigation Commission – Mr. V.M. Aguado

ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG)

Chairman:	Mr. H.S. Khola
Secretary:	Mr. L.B. Shah (ICAORD, Bangkok)
Chairman of CNS/ATM sub-group:	Vacant

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)

Chairman:	Mr. A. Bodian
Secretary:	Mr. A. Cheiffou (ICAORD, Dakar)
Chairman of CNS/ATM sub-group:	Mr. G. Elefteriou
ICAORD, Nairobi:	Mr. L. Mollel (A/ICAORD, Nairobi)

EUROPEAN AIR NAVIGATION PLANNING GROUP (EANPG)

Chairman:	Mr. J.A.P. Koren
Secretary:	Mr. C. Eigl (ICAORD, Paris)
Chairman of CNS/ATM sub-group:	No sub-group

CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)

Chairman:	Mr. J.P. Sánchez Dañino
Secretary:	Mr. P.I. Hegedus (ICAORD, Lima)
Chairman of CNS/ATM sub-group:	Mr. D. Gardilcic

MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

Chairman:	
Secretary:	Mr. A. Zerhouni (ICAORD, Cairo)
Chairman of CNS/ATM sub-group:	Mr. M. Alawi

NORTH ATLANTIC SYSTEMS PLANNING GROUP (NAT SPG)

Chairman:	Mr. A. Palsson
Secretary:	Mr. C. Eigl (ICAORD Paris)
Chairman of CNS/ATM sub-group:	No sub-group

NORTH AMERICAN GROUP (CANADA/MEXICO/USA)

Co-Chairmen:	Mr. K. Moody Ms. C. Fagan
Secretary:	Mr. R. Ybarra (ICAORD, Mexico) – represented by Mr. J. Diaz De La Serna (ICAO DEPRD, Mexico)

AIRPORTS COUNCIL INTERNATIONAL (ACI)

Director	Mr. R. Heitmeyer

AERONAUTICAL RADIO, INC. (ARINC)

Vice President, Industry Activities	Mr. E.R. Adelson

AGENCE POUR LA SÉCURITÉ DE LA NAVIGATION AÉRIENNE EN AFRIQUE ET À MADAGASCAR (ASECNA)

Directeur de l'Exploitation	Mr. M. Youssouf
Délégué de l'ASECNA à Montréal	Mr. M. Ndiaye

CORPORACIÓN CENTROAMERICANA DE SERVICIOS DE NAVEGACIÓN AÉREA (COCESNA)

–

EUROPEAN ORGANISATION FOR THE SAFETY OF AIR NAVIGATION (EUROCONTROL)

Head, ICAO Co-ordination Section	Mr. E. Cerasi
Head of Division, CRCO	Mr. E.K. Soehnle
Head, Legal Service	Mr. R. van Dam

RUSSIAN FEDERATION AS PROVIDERS OF THE GLOBAL ORBITING NAVIGATION SATELLITE SYSTEM (GLONASS)

–

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

Director, Infrastructure Support	Mr. J. White
Director, ICAO Relations	Mr. M.T. Comber
Assistant Director – ATM	Mr. L.J. Desmarais
Relationship Director – Operations	Mr. M. Eran-Tasker
Manager, User Charges	Mr. E. Hoeven
Project Manager ATM	Mr. R. Thompson
Assistant Director FANS Implementation	Mr. P.J. Van Der Westhuizen

INTERNATIONAL BUSINESS AVIATION COUNCIL (IBAC)

Director General	Mr. D. Spruston
Corporate Secretary	Mr. B. Stine
Director ICAO Liaison	Mr. P.R. Ingleton

INTERNATIONAL CO-ORDINATING COUNCIL OF AEROSPACE INDUSTRIES ASSOCIATIONS (ICCAIA)

Director	Mr. R. Axford

INTERNATIONAL FEDERATION OF AIR LINE PILOTS' ASSOCIATIONS (IFALPA)

Representative to ICAO	Capt. E. Smart
Chairman, ATS Committee	Capt. P. Foreman

INTERNATIONAL FEDERATION OF AIR TRAFFIC CONTROLLERS' ASSOCIATIONS (IFATCA)

President and Chief Executive Officer	Mr. S. Lampkin

INTERNATIONAL FEDERATION OF AIR TRAFFIC SAFETY ELECTRONICS ASSOCIATIONS (IFATSEA)

Representative to ICAO	Mr. Y. Ouellette

INTERNATIONAL MOBILE SATELLITE ORGANIZATION (INMARSAT)

–

NAV CANADA

CNS/ATM Planning Coordinator	Mr. L. Everett

SOCIÉTÉ INTERNATIONALE DE TÉLÉCOMMUNICATIONS AÉRONAUTIQUES (SITA)

Assistant Vice-President	Mr. D. Demers
Business Development Manager	Mrs. A. Kneeland

JAPAN AS PROVIDERS OF THE MULTI-FUNCTION TRANSPORT SATELLITE (MTSAT)

Senior Officer, JCAB	Mr. K. Nakatsubo
Special Assistant to the Director	Mr. K. Ito

UNITED STATES AS PROVIDERS OF THE GLOBAL POSITIONING SYSTEM (GPS)

Director, International Aviation, Federal Aviation Administration (FAA)	Ms. J. Bauerlein
CNS Representative Asia/Pacific	Mr. D. Beres
International Programme Analyst	Ms. M. Greaver
Manager, ATS International Staff	Mr. T. Halpin
Director - Office of Spectrum Policy	Mr. G. Markey
International Operations Officer	Mr. D. Monaco

OBSERVERS

Representative of Pakistan on the Council of ICAO	Mr. S. Ahmad
Head of Department, FAA of Russia	Mr. V.I. Atlarov
Representative of Uruguay on the Council of ICAO	Mr. C.B. Borucki
Representative of Algeria on the Council of ICAO	Mr. T. Chérif
Technical Expert, Saudi Arabia	Mr. F. Gari
Member, Air Navigation Commission	Mr. M. Lampi
Infrastructure Director, WTTC	Mr. D. Olsen
IAOPA Representative to ICAO	Mr. W. Peppler
Observer of Chile on the Council of ICAO	Mr. D. Retamal
Executive Secretary, RF Commission for ICAO	Mr. Y.F. Romanenko
Member, Air Navigation Commission	Mr. H.L. Sanchez
Representative of Trinidad & Tobago to ICAO	Mr. F. Seignoret
Representative of Indonesia on the Council of ICAO	Mr. E. Silooy
Representative of Cameroun on the Council of ICAO	Mr. T. Tekou

– END –