



International Civil Aviation Organization

CAR/SAM Regional Planning and Implementation Group (GREPECAS)

Sixth Meeting of the Air Traffic Management / Communications, Navigation and Surveillance Subgroup (ATM/CNS/SG/6) - ATM Committee

Boca Chica, Dominican Republic, 30 June-4 July 2008

ATM/COMM/6 - WP/11

09/06/08

-
- Agenda Item 4: Issues Related to the Organization of Future Work of GREPECAS ATM Matters**
- 4.1 Review the Terms of Reference and Work Programme of the ATM Committee and its Task Forces**

TERMS OF REFERENCE AND WORK PROGRAMME OF THE ATM COMMITTEE

(Presented by the Secretariat)

SUMMARY

This Working Paper presents aspects related to the terms of reference and work programme of the ATM Committee and its task forces, and the work plan of the future ATM Subgroup, for consideration of the meeting.

References:

- Report of the GREPECAS/14 Meeting (San José, Costa Rica from 16 to 20 April 2007).
- GREPECAS Procedural Handbook

1. Introduction

1.1 In accordance with the vision of the new *Global Air Navigation Plan* (Doc 9750) and the ALLPIRG/5 Report, GREPECAS/14 formulated Conclusion 14/51 - *Re-organization of the work programmes to support the ATM performance objectives for the CAR and SAM Regions*. ICAO Air Navigation Commission (ANC) Working Group on Regional Plans (WG/RPL) complimented GREPECAS on its initiative for developing ATM Performance objectives. Dateline to finish reorganization of the ATM Committee work programme is end of 2009. To this end, **Appendix A** to this paper includes ATM performance objectives approved by GREPECAS/14.

1.2 The ACG/7 Meeting recognized that the adoption of performance-based approach into the ATM Committee work programme ensures that its activities will fully support the regional planning processes, the guidelines of ICAO Council and ALLPIRG/5 Conclusions. **Appendix B** to this working paper includes the terms of reference and work programme of the ATM Committee approved by the ACG/7 Meeting, with the vision of an ATM Subgroup within the GREPECAS mechanism.

2. Analysis

2.1 Considering the tasks assigned by GREPECAS to the ATM Committee, ATM performance objectives have been integrated in its terms of reference, which will allow a better harmonization in the work programmes of the CAR/SAM Regions. The planning horizon of the ATM performance objectives is focused on the strategies and tasks for two periods, one for less than 5 years (short-term) and another beyond 5 years but less than 10 years (medium-term). The progress and achievements of all related tasks included in the performance objectives will be measured against timelines so as to ensure timely reports on the ATM regional work for GREPECAS, the ANC and ICAO Council.

2.2 The reorganization of the ATM work programme is consistent with the *Global Air Navigation Plan* (Doc 9750) and the ICAO vision as established in the *Global Air Traffic Management Operational Concept* (Doc 9854). Associated Global Planning Initiatives (GPIs) were identified for each task of the ATM performance objectives, for which it will be easy to quantify the cost/benefit relationship and therefore ensure the success of their implementation.

2.3 At the time of including these ATM performance objectives in regional planning, the ACG/7 Meeting introduced the relevant changes in the work programme of the ATM Committee, which will allow to carry out its work programme as ATM Subgroup, amend the terms of reference and work programme of the current Task Forces (**Appendix C** refers), as well as to activate new groups in order to implement the proposed work plan.

2.4 GREPECAS/14, when reviewing the work programme and terms of reference of its contributory bodies, particularly those related to the ATM/CNS Subgroup, took note of the development of a draft planning document for a gradual implementation of the ATM system in conjunction with the communications, navigation and surveillance infrastructure that should take into account ATM requirements. It is envisaged that these new requirements will allow a more dynamic coordination of future implementation activities for a transparent ATM system (WP/12 and WP/14 refer).

2.5 In order to carry out these strategies, the Meeting should review the tasks related with a vision as GREPECAS ATM Subgroup; consider the possibility of improving the work methodology and activate the required task forces to perform these tasks; consider extending the plenary sessions and foster further coordination of the implementation work within GREPECAS mechanism.

2.6 It should be recalled that GREPECAS has deemed pertinent that planning ATFM and PBN tasks be developed in a harmonious manner between the CAR and SAM Regions, recognising at the same time that the implementation shall be executed according to the operational needs of each Region.

2.7 In the light of the above, the Meeting should review Appendix B to this Working Paper, with a view to developing a future ATM Subgroup work programme, as well as providing comments and if applicable, introducing the changes deemed pertinent.

3. **Suggested action**

3.1 Keeping in mind the aforementioned, the Meeting is invited to:

- a) review Appendix B to this Working Paper, with a view to review the terms of reference and work programme of the ATM Subgroup and those corresponding to its Task Forces,
- b) establish priorities and finalization dates to the assigned tasks; and
- c) if applicable, establish the necessary Task Forces to develop the assigned tasks considered of high priority.

| IMPLEMENT RNP APPROACHES | | | |
|---------------------------------|---|-----------------------|---------------|
| Benefits | | | |
| Efficiency | <ul style="list-style-type: none"> • Improvements in capacity and efficiency at aerodromes. | | |
| Safety | <ul style="list-style-type: none"> • Improvements in safety at aerodromes. | | |
| Strategy (2008-2015) | | | |
| TASK | DESCRIPTION | START- END | STATUS |
| AOM | <ul style="list-style-type: none"> • development of a regional strategy and work programme for implementation of RNP approaches at aerodromes where aircraft weighing 5700 kg or more are operated, on the basis of the transition plan as follows: Stage 1 – Evaluate existing procedures, determine compatibility of use with RNAV overlay routes Stage 2 – Carry out cost benefit analysis and safety assessments of RNAV procedures Stage 3 – Use existing radar vectoring patterns as the basis for RNAV departure and arrival tracks Stage 4 – Evaluating and simulation of procedures Stage 5 – Design stand-alone RNAV procedures Stage 6 – Training phase Stage 7 – Publish new procedures and introduce into new service, meet AIRAC dates Stage 8 – Operational review Stage 9 – Removal of conventional procedures • monitor implementation progress | | |
| References | GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures. | | |

| ENHANCE CIVIL/MILITARY COORDINATION AND CO-OPERATION | |
|---|---|
| Benefits | |
| Efficiency | <ul style="list-style-type: none"> • increase airspace capacity; |
| Continuity | <ul style="list-style-type: none"> • allow a more efficient ATS route structure • ensure safe and efficient action in the event of unlawful interference; • make available military restricted airspace more hours of the day so that aircraft can fly on their preferred trajectories; and • improve search and rescue services. |

| Strategy (2008-2012) | | | |
|-------------------------|---|---------------|--------|
| TASK | DESCRIPTION | START- END | STATUS |
| AOM | <ul style="list-style-type: none"> • develop guidance material on civil/military coordination and co-operation to be used by States/Territories to develop national policies, procedures and rules; • establish civil/military coordination bodies; • arrange for permanent liaison and close cooperation between civil ATS units and appropriate air defense units; • conduct a regional review of special use airspace; • develop a regional strategy and work programme for implementation of flexible use of airspace in a phased approach beginning with more dynamic sharing of restricted airspace while working towards full integration of civil and military aviation activities by 2012; and • monitor implementation progress | | |
| References | GPI/1: flexible use of airspace. | | |

| ALIGN UPPER AIRSPACE CLASSIFICATION | | | |
|-------------------------------------|---|---------------|--------|
| Benefits | | | |
| Efficiency | <ul style="list-style-type: none"> • better utilization of data link communication; • optimize use of flight plan data processing systems; • enhance airspace management coordination, message exchange capabilities and utilization of flexible and dynamic airspace management techniques; | | |
| Continuity | <ul style="list-style-type: none"> • harmonization of interregional coordination processes; • improvement of airspace interoperability and seamlessness; and • ensure the provision of positive air traffic control services to all aircraft operations. | | |
| Strategy (Target: 2008) | | | |
| TASK | DESCRIPTION | START- END | STATUS |
| AOM | <ul style="list-style-type: none"> • Develop a regional implementation strategy and work programme for the implementation of ICAO Annex 11 airspace Class A above FL 195. • identify key stakeholders, ATCOs, pilots, and relevant international organisations for coordination and cooperation on changes for new airspace organization, using a CDM process; • develop new national airspace organization in accordance with ICAO provisions, as needed; | | |

| | | | |
|-------------------|---|--|--|
| | <ul style="list-style-type: none"> • Coordinate changes for regional and national documents; <ul style="list-style-type: none"> • Doc 8733, CAR/SAM ANP; • AIP; and, • ATS letters of agreement • Carry out improvements in ground systems to support new airspace organization configurations, as necessary; • Publish national regulatory material for implementation of new rules and procedures to reflect airspace organizational changes; • Train ATCOs and pilots in new procedures, including all civil and military airspace users, as required; • monitor implementation progress. | | |
| References | GPI/4: align upper airspace classification. | | |

| IMPROVE DEMAND AND CAPACITY BALANCING | | | |
|--|---|-----------------------|---------------|
| Benefits | | | |
| Environment | <ul style="list-style-type: none"> • reduction in weather- and traffic-induced holding, leading to reduced fuel consumption and emissions; | | |
| Efficiency | <ul style="list-style-type: none"> • improved and smoother traffic flows; • improved predictability; • improved management of excess demand of service in ATC sectors and aerodromes; • improved operational efficiency; • enhanced airport capacity; • enhanced airspace capacity; and | | |
| Safety | <ul style="list-style-type: none"> • improved safety management. | | |
| Strategy Near term (2008) | | | |
| TASK | DESCRIPTION | START- END | STATUS |
| ATFM (DCB) | <ul style="list-style-type: none"> • identify key stakeholders (ATC service providers and users, military authorities, airport authorities, aircraft operators and relevant international organisations) for purposes of coordination and cooperation, using a CDM process; • identify and analyse traffic flow problems and develop methods for improving efficiencies on gradual basis, as needed, through enhancements in current: <ul style="list-style-type: none"> ○ airspace organization and management (AOM) and airway structure (unidirectional routes), ○ communication, navigation and surveillance systems, ○ aerodrome capacity, ○ ATS capacity, and ○ ATS letters of agreement; | | |

| | | | |
|---------------------------|---|--|--|
| | <ul style="list-style-type: none"> • define common elements of situational awareness between FMUs; <ul style="list-style-type: none"> ○ common traffic displays, ○ common weather displays (Internet), ○ communications (teleconferences, web), and ○ daily teleconference/messages methodology advisories; • develop methods to establish demand/capacity forecasting; • develop a regional strategy and work programme for harmonized implementation of ATFM service; and, | | |
| Medium term (2010) | | | |
| | <ul style="list-style-type: none"> • develop a regional strategy for the implementation of flexible use of airspace (FUA); <ul style="list-style-type: none"> ○ assess use of airspace management processes; ○ improve current national airspace management to adjust dynamic changes in traffic flows in tactical stage; ○ introduce improvements in ground ATS systems and associated procedures for the extension of FUA with dynamic airspace management processes; ○ implement dynamic ATC sectorization in order to provide the best balance between demand and capacity to respond in real-time to changing situations in traffic flows, and to accommodate in short-term the preferred routes of users; • define common electronic information and minimum databases required for decision support and alerting systems for interoperable situational awareness between Centralized ATFM units; • develop regional procedures for efficient and optimum use of aerodrome and runway capacity; • develop a regional ATFM procedural manual to manage demand/capacity balancing; • develop a regional strategy and framework for the implementation of Centralized ATFM unit; • develop operational agreements between Centralized ATFM units for interregional demand/capacity balancing; and, • monitor implementation progress. | | |
| References | <p>GPI/1: flexible use of airspace; GPI/6: air traffic flow management; GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems.</p> | | |

| IMPROVE ATM SITUATIONAL AWARENESS | | | |
|--|--|-----------------------|---------------|
| Benefits | | | |
| Efficiency | <ul style="list-style-type: none"> • enhanced traffic surveillance; • enhanced collaboration between flight crew and the ATM system; • improved collaborative decision-making through sharing electronic aeronautical data information; • reduction of workload for both pilots and controllers; • improved operational efficiency; • enhanced airspace capacity; | | |
| Safety | <ul style="list-style-type: none"> • improved implementation on a cost-effective basis; • improved available electronic terrain and obstacle data in the cockpit; • reduction of the number of controlled flight into terrain related accidents; and • improved safety management. | | |
| Strategy Near term (2010) | | | |
| TASK | DESCRIPTION | START- END | STATUS |
| ATS (ATM SDM) | <ul style="list-style-type: none"> • identify parties concerned • identify the automation level required according to the ATM service provided in airspace and international aerodromes, assessing <ul style="list-style-type: none"> ○ operational architecture design, ○ characteristics and attributes for interoperability, ○ data bases and software, and ○ technical requirements; • improve ATS interfacility communication • implement flight plan data processing system and electronic transmission tools • implement radar data sharing programs where benefits can be obtained • develop situational awareness training programmes for pilots and controllers • implement ATM surveillance systems for situational traffic information and associated procedures • implement ATS automated message exchanges, as required <ul style="list-style-type: none"> ○ FPL, CPL, CNL, DLA, etc. • implement automated radar handovers, where able; • implement ground and air electronic warnings, as needed <ul style="list-style-type: none"> ○ Conflict prediction ○ Terrain proximity ○ MSAW ○ DAIW ○ Surveillance system for surface movement | | |

| | | | |
|--------------------|---|--|--|
| | <ul style="list-style-type: none"> • implement data link surveillance technologies and applications: ADS, CPDLC, AIDC, as required | | |
| Medium term (2015) | | | |
| | <ul style="list-style-type: none"> • implement additional/advanced automation support tools to increase sharing of aeronautical information <ul style="list-style-type: none"> ○ ETMS or similar ○ MET information ○ AIS/NOTAM dissemination ○ Surveillance tools to identify airspace sector constraints ○ A-SMGC in specific aerodromes, as required • implement teleconferences with ATM stakeholders • monitor implementation progress | | |
| References | GPI/1: flexible use of airspace; GPI/6: air traffic flow management; and GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems; GPI/17: implementation of data link applications; GPI/18: aeronautical Information; GPI/19: meteorological systems. | | |

APPENDIX B

TERMS OF REFERENCE AND WORK PROGRAMME OF THE ATM COMMITTEE

1. Terms of reference

- a) To assist and guide CAR and SAM States/Territories/International Organisations in the implementation of ATS safety management programmes.
- b) To identify, assess and address specific corrective actions to solve deficiencies in the ATM and SAR fields.
- c) To study, analyse and propose measures that allow the improvement in the areas of Airspace Organisation and Management (AOM), Air Traffic Services (ATS), Air Traffic Flow Management (ATFM), and Search and Rescue (SAR) in the CAR/SAM Regions, with a view to comply with [ICAO strategic objectives](#), based on [Global Plan Initiatives \(GPI\)](#).
- d) To promote and follow-up the implementation of the ATM and SAR requirements and keep updated the CAR/SAM Air Navigation Plan in accordance with the Global ATM operational concept (Doc 9854) and the Global Air Navigation Plan (Doc 9750);
- e) To analyse guidance material and carry out permanent coordination with various GREPECAS Contributory Bodies in order to ensure implementation of collaborative tasks contributing to improve the CAR/SAM ANP.

2. Work programme

| Number | Task description | Priority | Date | |
|--|---|----------|-------------|------|
| | | | Start | End |
| ATM-1 – Facilitate guidance material for the implementation of ATS Safety Management Programmes | | | | |
| ATM-1.1 | Analyse and evaluate 300 ft or more large-height deviations (LHD) | A | Permanent | N/A |
| ATM-2 – Facilitate improvements for the provision of Air Traffic Services | | | | |
| ATM-2.1 | Identify activities for the implementation of new meteorological services related to both training and the implementation of the ATM system. Note: Joint MET/ATM Task Force (AERMETSG Decision 6/24) | B | 2005 | 2009 |
| ATM-3 – Facilitate implementation of Performance-based navigation (PBN) - GPI 5, 7, 8, 10, 11, 12, 20, 21 | | | | |
| ATM-3.1 | Prepare a performance objective for RNAV and RNP implementation, taking into account the ICAO performance-based navigation (PBN). | A | Short term | |
| | | | 2006 | 2010 |
| | | | Medium term | |
| | | | 2011 | 2015 |
| ATM-3.2 | Develop a PBN road map for route, TMA and approach | A | 2005 | 2007 |

| Number | Task description | Priority | Date | |
|--|---|----------|-------|------|
| | | | Start | End |
| ATM-3.3 | Optimize the ATS route structure in both terminal and en-route airspace | A | 2006 | 2015 |
| ATM-3.4 | Implement RNP approaches at aerodromes where aircraft weighting 5700 kg or more are operated | A | 2008 | 2015 |
| ATM-3.5 | Harmonize PBN implementation among CAR and SAM Regions. | A | 2005 | 2015 |
| ATM-4 – Facilitate implementation of Flexible use of airspace - GPI 1 | | | | |
| ATM-4.1 | Prepare a performance objective for the implementation of the flexible use of airspace (FUA), based on the Global Air Navigation Plan guidelines. | B | 2007 | 2015 |
| ATM-4.2 | Enhance civil/military coordination and co-operation | B | 2008 | 2012 |
| ATM-4.3 | Carry out regional analysis of the especial use of airspace. | | | |
| ATM-4.4 | Assess use of airspace management processes. | B | 2008 | 2015 |
| ATM-4.5 | Improve current national airspace management to adjust dynamic changes in tactical stage to traffic flows. | B | 2008 | 2015 |
| ATM-4.6 | Improve ground support systems and associated procedures for the extension of FUA with dynamic airspace management processes. | B | 2008 | 2015 |
| ATM-4.7 | implement dynamic ATC sectorization in order to provide demand and capacity balancing measures to respond in real-time to changing situations in traffic flows. | B | 2008 | 2015 |
| ATM-5 – Facilitate implementation of Air traffic flow management (ATFM) System - GPI 1, 6, 7, 9, 13, 14, 16 | | | | |
| ATM-5.1 | Prepare a performance objective for the implementation of CAR and SAM harmonized inter-regional air traffic flow management (ATFM), based on the Global Air Navigation Plan guidelines. | A | 2006 | 2007 |
| ATM-5.2 | Develop ATFM operational concept | A | 2005 | 2006 |
| ATM-5.3 | Improve ATS tactical demand and capacity balancing measures | A | 2005 | 2015 |
| ATM-5.4 | Improve on a gradual basis aerodrome capacity, ATS capacity, training for pilots and Controllers, ATS letters of agreement | A | 2005 | 2015 |
| ATM-5.5 | Develop a regional ATFM procedural manual to manage demand and capacity balancing | A | 2008 | 2012 |
| ATM-5.6 | Establish demand and capacity forecasting methods | A | 2008 | 2012 |
| ATM-5.7 | Develop regional procedures for efficient and optimum use of runway capacity | A | 2008 | 2012 |
| ATM-5.8 | Define common elements of situational awareness between flight management units | A | 2008 | 2015 |
| ATM-5.9 | Develop a regional strategy and framework for the implementation of Centralized ATFM units | B | 2005 | 2015 |

| Number | Task description | Priority | Date | |
|---|---|-------------------------|-------------|--------|
| | | | Start | End |
| ATM-5.10 | Define common electronic information and databases required and alerting systems for interoperable situational awareness between Centralized ATFM units | B | 2010 | 2015 |
| ATM-5.11 | Develop operational agreements between Centralized ATFM units for interregional demand/capacity balancing | B | 2010 | 2015 |
| ATM-6 – Facilitate improvements for the ATM Situational Awareness - GPI 1, 6, 7, 9, 13, 14, 16, 17, 18, 19 | | | | |
| ATM-6.1 | Develop a performance objective for the implementation/interfacing of ATM automated systems, based on Global Air Navigation Plan guidelines | A Together with CNSC | 2006 | 2015 |
| ATM-6.2 | identify the automation level required according to the ATM service provided in airspace and international aerodromes | A | 2006 | 2010 |
| ATM-6.3 | improve ATS interfacility communication | A | 2006 | 2010 |
| ATM-6.4 | Improve flight plan data processing system and electronic transmission tools | A | 2006 | 2010 |
| ATM-6.5 | implement radar data sharing programs where benefits can be obtained | A | 2007 | 2012 |
| ATM-6.6 | implement ATS automated message exchanges, in accordance with CAR/SAM AIDC | A | 2007 | 2012 |
| ATM-6.7 | implement ground and air electronic warnings | B | 2007 | 2012 |
| ATM-6.8 | implement automated radar handovers | B | 2007 | 2012 |
| ATM-6.9 | implement data link surveillance technologies and applications (ADS, CPDLC, AIDC) | B | 2007 | 2012 |
| ATM-6.10 | Implement teleconferences between ATM stakeholders | B | 2007 | 2015 |
| ATM-6.11 | Implement additional/advanced automation support tools to increase sharing of aeronautical information | B | 2008 | 2015 |
| ATM-7 – Facilitate improvements to the Search and rescue (SAR) system | | | | |
| ATM-7.1 | Develop a quality assurance programme for search and rescue services (SAR), according to the IAM/SAR manual, for the CAR/SAM Regions. | B | August 2003 | ATMC/7 |

3. **A** High priority tasks, on which work should be speeded up.
 B Medium priority tasks, on which work should commence as soon as possible, but without detriment to priority **A** tasks.
 C Tasks of lesser priority, on which work should commence as time and resources allow, but without detriment to Priority **A** and **B** tasks.

4. **Composition**

Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba**, Dominican Republic, Ecuador, France, Guatemala, Haiti, Jamaica, Mexico, Panama, Paraguay, Peru, Spain, Trinidad and Tobago, United States, Uruguay*, Venezuela, ARINC, COCESNA, IATA, IFALPA, IFATCA and SITA.

5. *Chairman: Roberto Arca (Uruguay)
 **Vice-Chairman: Fidel Ara (Cuba)

APPENDIX C**TERMS OF REFERENCE AND WORK PROGRAMME OF THE ATM COMMITTEE TASK FORCES****TERMS OF REFERENCE AND WORK PROGRAMME OF THE PERFORMANCE-BASED NAVIGATION TASK FORCE (PBN/TF)****1. Terms of reference**

Carry out specific studies and develop guidance material for RNAV/RNP implementation in the en-route, terminal, and approach flight phases, taking into account the performance-based navigation (PBN) concept, according to the ICAO Strategic Objectives and Global Plan Initiatives (GPI) on this matter (GPI 5, 7, 10, 11, 12, 20, 21).

2. Work Programme

- a) Analyse the application of GNSS to support all flight phases.
- b) Establish training requirements.
- c) Verify the status of implementation of WGS-84.
- d) Follow-up of PBN implementation for en-route, TMA, and approach operations to ensure its harmonisation intra- and inter-regionally, as well as among the States involved.
- e) Submit the developed PBN work to the ATM Committee.

3. Composition

Argentina, Brazil*, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, France, Haiti, Panamá, Peru, Trinidad and Tobago, United States, Uruguay, Venezuela, COCESNA, IATA, IFALPA, IFATCA, and SITA.

4. Rapporteur

Julio César Pereira*

**TERMS OF REFERENCE AND WORK PROGRAMME OF THE FLEXIBLE USE OF
AIRSPACE TASK FORCE**

1. Terms of reference

Conduct specific studies and develop guidance material for the implementation of the flexible use of airspace, to support the implementation of the CAR/SAM Regional Air Navigation Plan, in keeping with ICAO Strategic Objectives and Global Plan Initiatives on this matter (GPI 1).

2. Work Programme

- a) Develop a Model Action Plan for the Flexible Use of Airspace
- b) Develop guidelines for the implementation of procedures for the flexible use of airspace.
- c) Develop a model letter of agreement between ATS units and military units or other users.
- d) Present the work carried out to the ATM Committee

3. Composition

TBD

4. Rapporteur

TBD

TERMS OF REFERENCE AND WORK PROGRAMME OF THE ATFM TASK FORCE**1. Terms of reference**

Carry out specific studies in order to determine and elaborate guidance material on an Air Traffic Flow Management (ATFM) system to ensure an optimum air traffic flow in the CAR/SAM Regions.

2. Work Programme

- a) Review the documentation on air traffic flow management and the policies globally established;
- b) Review the ATFM regional plans of other regions;
- c) Review the existing ATFM national plans;
- d) In coordination with the GREPECAS Task Force on Institutional Aspects consider, in the development of all its activities the institutional aspects involved in a multinational environment;
- e) Review the ATFM technical and operational aspects;
- f) Identify the minimum requirements to implement ATFM;
- g) Define the principles in which the CAR/SAM ATFM service will be based;
- h) Evaluate different alternatives and strategies that may satisfy the future air traffic flow management in the CAR/SAM Regions;
- i) Prepare the necessary ATFM documentation for the CAR/SAM Regions;
- j) Harmonize the ATFM implementation plans among the CAR and SAM Regions as well as with other ICAO Regions; and
- k) Present not later than ATM/6 Committee the documentation for their approval.

3. Composition

Víctor Marcelo De Virgilio (Argentina), Bolivia, Brazil, Jesús Sánchez (Chile), Colombia, Edwin Jiménez (Costa Rica), Cuba, Dominican Republic, El Salvador, Haiti, Jamaica, Mexico, Panama, Paraguay, Jaime Contreras (Peru), Trinidad and Tobago, United States, Uruguay, Venezuela, Uriel Urbizo (COCESNA), IATA, Fernando Álvarez (IFALPA) and Alex Figuereo (IFATCA).

4. Rapporteur

Joe Hof

**TERMS OF REFERENCE AND WORK PROGRAMME OF THE ATM AUTOMATION TASK
FORCE (AUTOM/TF)**

1. Terms of reference

Conduct specific studies and develop guidance material for the implementation of automated ATM systems to support the implementation of the CAR/SAM Regional Air Navigation Plan, in keeping with ICAO Strategic Objectives and Global Plan Initiatives (GPI) on this matter (GPI 6, 7, 9, 17, 18 and 19).

2. Work Programme

- a) Review and update the Interface Control Document (ICD) for its use in short and medium term in the CAR/SAM Regions.
- b) Analyse and prepare proposals for updating the regional strategy for the evolutionary implementation of ATM automation in the CAR/SAM Regions according to the new ICAO Global Air Navigation Plan (Doc 9750) and other related initiatives.
- c) Review and make recommendations on proposals from the RLA/98/003 or other Subregional groups pertaining to ATM automation.
- d) Prepare general guidance material containing references on the ATM automation functions and its improvement levels for ATS units.
- e) Develop and document an action plan that facilitate the implementation of new ATM automated systems, as well as the interfacing among existing ATM automated systems.

3. Composition

Arrile Torino (Brazil), José Arturo García Torres (Colombia), Ramón Navarro (Cuba), José Luis Fernández Rosario (Dominican Republic), Roger Prudent (France), Marc Paulemon (Haiti), Sergio Valencia (México), Panama, Juan de Mata (Spain), C. Martin Cacioppo (United States), José Ramón Oyuela (COCESNA) and IFATCA.

Note: Composed by ATM and CNS experts.

4. Rapporteur

Sergio Valencia (México).

- END -