INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FIFTH MEETING OF CIVIL AVIATION DIRECTORS OF THE SOUTH AMERICAN REGION

(Cuzco, Peru, 05 -07 June 1996)

Prepared by the Secretariat

June 1996

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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i-1 PLACE AND DURATION OF THE MEETING

By invitation of the Peruvian Government, through the Dirección General de Transporte Aéreo and with the sponsoring of the Corporación Peruana de Aeropuertos y Aviación Comercial (CORPAC S.A.), the Fifth Meeting of Civil Aviation Authorities of the South American Region was convened by the ICAO South American Regional Office and held in the city of Cuzco, Peru, at the Monasterio Hotel. It commenced on 5 June and ended on 7 June 1996.

i.2 OPENING CEREMONY AND OTHER MATTERS

The Opening Ceremony of the Meeting began with an address speech of Mr. Ali Ridha El Hicheri, Secretary General a.i. and Technical Cooperation Director of the International Civil Aviation Organization, who welcomed all participants and referred to the agenda items.

Mr. William Jara Vidal, Peruvian Vice-Minister of Transport, addressed the participants expressing the satisfaction of his Government of hosting the Fifth Meeting of Civil Aviation Directors of the South American Region and declared the Meeting opened. Moreover, Mr. Ricardo La Puente Robles, Peruvian General Director of Transport and Mr. David Griffith, Vice-President of CORPAC's Directorate, welcomed the participants.

Mr. Paulo Imre Hegedus, ICAO South American Regional Representative expressed his most sincere gratitude in name of the Organization to the Peruvian Government for hosting the Meeting, highlighting the efforts of CORPAC in the organization. He addressed the Group on the work expected and, wished that the results of the same to be successful.

i.3 ORGANIZATION, OFFICERS AND SECRETARIAT

The Meeting designated Mr. Ricardo La Puente Robles, Peruvian General Director of Transport as President, and Ten. Brig. do Ar Joao Sampaio de Lacerda Jr., Civil Aviation General Director of Brazil, as Vice-President.

The Secretariat counted with the participation of Mr. Ali Ridha El Hicheri, Secretary General a.i. and ICAO Technical Cooperation Director. Mr. Paulo Imre Hegedus, ICAO South American Regional Director acted as Secretary of the Meeting with the participation of the following ICAO South American Regional Office Officers:

Mr. José Miguel Ceppi, Deputy Director
Mr. Jorge Castro Montes, Technical Cooperation Officer
Mr. Jorge Fernández Demarco, Air Traffic Management Officer

i.4 WORKING LANGUAGES

The working languages of the Meeting were English and Spanish.

i.5 **AGENDA**

The following Agenda was adopted:

Asunto 1. **Planning and implementation of the CNS/ATM systems in the SAM Region**

Asunto 2. **Review of the accomplishment status of ICAO SARPs in the flight safety activities**

Asunto 3. **Airport Economics**

Asunto 4. **Other matters**

i.6 **ATTENDANCE**

The Meeting was attended by 36 reprsentatives of 10 States of the SAM Region, 5 representatives o the United States, as invited State and, 5 representatives of IATA as observers.

i.7 **LIST OF CONCLUSIONS**

The Meeting adopted the following Conclusions:

ARGENTINA

Brig. Julio A. Domínguez
Sub-Director de Aviación Civil
Comando de Regiones Aéreas
Buenos Aires

Vice Comodoro Guillermo José Testoni
Jefe del Departamento OACI
Comando de Regiones Aéreas
Buenos Aires

BRAZIL

Ten. Brig. do Ar
Joao Felippe Sampaio de Lacerda Jr.
Director General de Aviación Civil
Rio de Janeiro

Maj. Brig. do Ar Renato Claudio Costa Pereira
Presidente de la CERNAI
Rio de Janeiro

Maj. Brig. do Ar
Normando Araújo de Medeiros
Director de Electrónica y Protección al Vuelo
Rio de Janeiro

Cel. Int. Floriano Machado Fernandes da Silva
Asesor de la Dirección de Aviación Civil
Rio de Janeiro

CHILE

Gral. de Brigada Aérea
Gonzalo Miranda Aguirre
Director General de Aeronáutica Civil
Santiago

CHILE (Cont.)

Sr. José Manuel Sánchez Cvitanic
Sub-Director de Proyectos y Desarrollo
Organizacional
Dirección General de Aeronáutica Civil
Santiago

COLOMBIA

Cnel. Jorge Enrique Parga
Secretario Técnico Aeronáutico
Unidad Administrativa Especial de Aeronáutica Civil
Bogotá

Sr. Germán Duarte
Seguridad Aérea
Unidad Administrativa Especial de Aeronáutica Civil
Bogotá

ECUADOR

Brigadier General Carlos Puga Russo
Director General de Aviación Civil
Quito

Dr. Carlos Sáenz Merizalde
Asesor de Política Aeronáutica,
DGAC
Quito

FRANCE

Sr. Alain Tacquin
Sub-Director de la
Dirección Regional de Aviación Civil
de las Antillas y Guyana

Sr. Raymond Dupont
Dirección Regional de Aviación Civil
de las Antillas y Guyana

PANAMA

Lic. Eustacio Fábrega
Director General de Aeronáutica Civil
Panamá

Sr. Germinal Sarasqueta
Coordinador Nacional de los Proyectos
PNUD/OACI PAN/94/008, RLA/92/031, RLA/95/003
Panamá

PARAGUAY

Crel. DEM Roberto Vera Ortega
Director de Aeronáutica
Dirección Nacional de Aeronáutica Civil
Asunción

Lic. Luis Ramón Acosta
Director del Instituto Nacional de
Aeronáutica Civil
Luque

PERU

Ing. William Jara Vidal
Vice-Ministro de Transportes
Ministerio de Transportes, Comunicaciones,
Vivienda y Construcción
Lima

Sr. Ricardo La Puente Robles
Director General de Transporte Aéreo
Lima

Crel. FAP Victor Manrique Alcázar
Sub-Director de Transporte Aéreo
Lima

PERU (Cont.)

Crl. FAP Guillermo Ciriani
Director de Circulación Aérea,
DGTA
Lima

Mayor FAP Néstor Rodríguez Velit
Dirección General de Transporte Aéreo
Lima

Crl. FAP (R) Jorge Laguna Rosado
Asesor/Inspector de Aeronavegabilidad
DGTA
Lima

Cmdte. FAP (R) Héctor Elera Gómez
Asesor en Comunicaciones y Aviónica, DGTA
Lima

Sr. Ricardo Agüero Herrera
Asesor en Navegación Aérea, DGTA
Lima

Sr. David Griffith
Vice Presidente del Directorio de la
Corporación Peruana de Aeropuertos
y Aviación Comercial S.A. (CORPAC)
Lima, Callao

Sr. Juan Zanelli
Director de CORPAC S. A.
Lima, Callao

Sr. William Cornejo
Gerente General de CORPAC S. A.
Lima, Callao

PERU (Cont.)

Srta. Rossana Enrico
Asistente del Comité de
Privatización de CORPAC S. A.
Lima, Callao

Sr. Guido Niño de Guzmán
Gerente de Desarrollo Corporativo
CORPAC S. A.
Lima, Callao

Sr. Julio César Canaval
Gerente de Aeronavegación
CORPAC S. A.
Lima, Callao

Ing. Alan Portugal Hidalgo
Asesor/Coordinador Nacional del
Proyecto PER/91/018
CORPAC S. A.
Lima, Callao

Sr. Miguel Ramírez Castro
Asesor de la Gerencia de Operaciones
Aeroportuarias de Provincias
CORPAC S. A.
Lima, Callao

UNITED STATES

Sr. Barry Valentine
Assistant Administrator Policy,
Planning and Int. Aviation
Federal Aviation Administration
Washington D.C.

ESTADOS UNIDOS (Cont.)

Sra. Joan Bauerlein
Director, Office of International Aviation
FAA
Washington, D.C.

Sr. Victor H. Tamariz
Senior FAA Representative
FAA
Miami

Sr. Santiago Garcia
Senior FAA Representative
Rio de Janeiro

Sr. Drazen Gardilcic
Director, International Area Office for
Latin America and the Caribbean
FAA
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VENEZUELA

Sra. Helena Fernández
Directora de Transporte Aéreo
Dirección General Sectorial
de Transporte Aéreo
Caracas

Embajador Marcos Requena
División de Transportes y Comunicaciones
Ministerio de Relaciones Exteriores
Caracas

ASOCIACION DE TRANSPORTE AEREO INTERNACIONAL (IATA)

Sr. Al Castan
Regional Technical Director
Latin America/Caribbean
Miami

Sr. Peter Hernández
Manager Flight Operations Latin America
Continental Airlines
Texas

Sr. Manuel Hugonnet
American Airlines
Miami

Srta. Susana Mantilla
Asesora de AITAL

Sr. Michael Ramírez Janin
Regional Manager Air Traffic & Flight Systems
United Airlines
Miami*

Item 1: Planning and implementation of the CNS/ATM systems in the SAM Region

1.1 The Meeting of Civil Aviation Authorities started its deliberations by taking into consideration the fact that the CAR/SAM Regional Planning and Implementation Group (GREPECAS), established by the ICAO Council in 1990, at present has 5 contributory bodies or subgroups in the following areas: ATS, AIS, CNS/ATM, COM and MET.

1.2 It was also recalled that GREPECAS/5 approved the CAR/SAM Regional Implementation Plan for New CNS/ATM Systems and recommended its use for initiating regional coordination activities for the implementation, encouraging States to examine the Regional Plan and make observations for the purpose of improving the planning and implementation process. It was also reported that the CNS/ATM Subgroup had been terminated and its work declared to have been concluded, and that the CAR/SAM CNS/ATM Implementation Coordination Subgroup (CNS/ATM/IC/SG) had been created.

1.3 The Meeting was likewise informed that the CAR/SAM Regional Plan for the Implementation of the New CNS/ATM Systems was a high level instrument that provides for a progressive transition to the different elements of the new air navigation systems and that it should be completed by the year 2010.

1.4 It was also reported that most of the States in this Region have presented their high-level plans for CNS/ATM transition to GREPECAS; also, that the regional implementation timetable shown in the Plan had been prepared in light of the plans of the individual States and that it would most likely be amended as the CNS/ATM/IC Subgroup receives complementary information from the States themselves.

1.5 The Meeting took note that, starting that moment, the Region should enter a second stage to define, according to the characteristics of the various air traffic scenarios, the evolution of communications, navigation and surveillance systems, from the current environment to that envisaged in the new CNS/ATM systems.

1.6 It was recalled that Communications, Navigation and Surveillance (CNS) systems are established to support Air Traffic Management (ATM); for that reason, they must duly respond to ATM requirements. As a result, in this second stage, ATM requirements should be defined for each airspace portion (FIR, for example) and the evolution for each one of these airspaces (air traffic scenarios) established in detail, defining the most suitable technology for use, siting place and implementation date for each service. Coordination with the users and adjacent airspaces will be fundamental. In view of the aforementioned, and as a means of establishing better regional coordination, the Meeting of Civil Aviation Authorities adopted the following Conclusion:

CONCLUSION 5/1 INFORMATION THAT SHOULD BE SENT TO THE STATES IN THE SAM REGION BY THE ICAO REGIONAL OFFICE

That the ICAO Regional Office prepare executive summaries of the meetings of GREPECAS and its contributory bodies, in which topics related to the CNS/ATM transition are analyzed, and send them in due time to the Civil Aviation Directors of States in the SAM Region.

National CNS/ATM Planning and Implementation Committee

1.7 The Meeting acknowledged that many civil aviation administrations had set up their internal CNS/ATM planning mechanisms, according to Conclusion 2/27 of GREPECAS, and that these inform the ICAO Regional Office continuously of the progress of their activities. It also recognized that these national CNS/ATM planning mechanisms should start implementing the activities cited in the preceding paragraphs.

1.8 It was likewise acknowledged that some States of the SAM Region still needed to set up the cited CNS/ATM Planning and Implementation Committee; consequently, the Meeting agreed to adopt the following Conclusion:

CONCLUSION 5/2 ESTABLISHMENT OF NATIONAL CNS/ATM PLANNING AND IMPLEMENTATION COMMITTEE

That those civil aviation administrations that have not yet established an internal CNS/ATM Planning and Implementation Committee, do so shortly, reporting to the ICAO SAM Regional Office on its start-up.

1.9 The Civil Aviation Authorities underscored the need for a coordinated effort between the GREPECAS CNS/ATM/IC Subgroup and the internal Committees of each State, and the necessity of having the latter report periodically on their activities to that Subgroup, accordingly adopting the following Conclusion:

CONCLUSION 5/3 COORDINATION OF THE WORK OF THE GREPECAS CNS/ATMS/IC SUBGROUP WITH THAT OF THE NATIONAL CNS/ATM PLANNING AND IMPLEMENTATION COMMITTEES

That the Civil Aviation Authorities orient the National CNS/ATM Planning and Implementation Committees so that:

a) their work programme will be closely attuned to the information needs of the GREPECAS CNS/ATM/IC Subgroup; and

b) they will report periodically on the results of their CNS/ATM activities.

GREPECAS CNS/ATM Implementation Coordination Subgroup

1.10 The Meeting took note that the CNS/ATM/IC Subgroup should be the GREPECAS mechanism for internally coordinating the performance of the tasks connected with CNS/ATM implementation among the different Subgroups; also, that one of the most important products that the CNS/ATM/IC Subgroup should deliver at the conclusion of the tasks assigned to it by GREPECAS should be a detailed CNS/ATM implementation programme that would meet the operational requirements, based on the scenarios to be identified, for improving the ATM.

1.11 It likewise took note that another important CNS/ATM/SC/IC task would be to recommend the institutional arrangements needed for the implementation of any of the elements of the CNS/ATM.

Operational Technical Aspects of CNS/ATM Systems

GNSS

1.12 The Meeting was reminded that, at present, the global navigation satellite system (GLONASS) of the Russian Federation and the United States global positioning system (GPS) each have their full constellation of 24 satellites. It was also reported that, as planned by the FANS Committee, the GLONASS and GPS systems would work together within the GNSS global navigation satellite system, thereby making it possible to increase the reliability and quality of air navigation systems.

1.13 It was recalled that, in order to meet operational performance requirements (precision, integrity, availability and continuity) in all flight stages, both the GPS and the GLONASS need to have various degrees of augmentation in three general categories: airborne, local area and wide area, which are described below:

a) The receiver autonomous integrity monitoring (RAIM) is an airborne augmentation which, supplemented if necessary by other data such as those of the inertial system, provides a powerful augmentation of the GPS/GLONASS system. The RAIM, of itself, provides data on the integrity of the system starting when five satellites are in sight. Based on this information, the pilot can determine the available performance level and modify his/her operations as required.

b) Using local area augmentation through differential techniques, correction signals are sent to the aircraft located within a radius of approximately 20 miles from a monitoring station. These signals provide greater local accuracy of the position, together with data on satellite integrity. An ground-to-aircraft data link is required. With local area augmentation, it would be possible to provide support to operations up to CAT III precision approaches.

c) The concept of wide or regional area augmentation is an extension of that of local area augmentation, and is used for radio-broadcasting the correction signals to geostationary satellites that transmit these signals within an extensive geographic area. With this type of augmentation, signals are obtained for supporting operations up to CAT I precision approaches.

1.14 The United States Representative gave the Meeting information on the current U.S. policy with regard to the Global Positioning System (GPS). **Appendix A** to this agenda item contains that policy.

1.15 In answer to an inquiry by one of the Authorities present at the Meeting, as to whether U.S. policy on the GPS would need Congressional approval as endorsement to prevent it from being changed by a possible new administration, the U.S. Representative stated that before the policy was published, it had been studied for a long period of time, and all of the sectors involved, including members of the Congressional Transportation Committee, had been consulted. He added, furthermore, that the use of the GPS by the civilian community is a fact and therefore it is not possible to turn back the clock, thereby ensuring the continuation of the established policy.

1.16 The U.S. Representative answered another question about the transfer of technology on the wide area augmentation system (WAAS), by pointing out that Mr. Hinson, the FAA Administrator, had stated that there will be a complete transfer of technology and that, at present, joint projects are being carried out with other States, like Canada, and other projects with Central American countries are being explored.

1.17 The U.S. Representative went on to indicate that the FAA is giving more priority to the WAAS than to the local area augmentation system (LAAS) and that the technical specifications of the LAAS have not been completely finished. He also pointed out that several companies are developing LAAS equipment, known as SCAT 1, and that these should be submitted to the FAA to obtain their corresponding Type Certificate; this certificate, however, does not mean that the equipment complies with FAA specifications, inasmuch as the latter have not yet been defined. Despite this, he added, they are safe equipment and their early use may be warranted by national operational requirements and/or trials.

1.18 It was also reported that three States in the SAM Region, Brazil, Chile and Uruguay, had established, through their respective internal regulation schemes, operational criteria for the use of the Global Positioning System (GPS) in the airspaces under their jurisdiction, as a supplementary means to air navigation.

1.19 The Representative of Argentina reported that, on 28 May, his country had approved the use of the GPS in the Argentine airspace as a supplementary navigation system. The Representative of Peru, likewise, informed the Meeting that the GPS will begin to be used in Peruvian airspace on 15 July 1996 as a supplementary aid.

IATA Regional CNS/ATM Plan

1.20 The IATA Representative at the Meeting reported that they had already completed the development of the CAR/SAM Regional Plan for the implementation of the CNS/ATM systems from the viewpoint of the users of air navigation services and that it would be presented at the First Meeting of the CNS/ATM/IC Subgroup. He also emphasized the need for administrations that establish the use of the GPS system as a supplementary navigation aid, to publish the corresponding aeronautical circulars.

World Geodetic System (WGS-84)

1.21 The Meeting was reminded that, in 1989, ICAO adopted the 1984 World Geodetic System as the standard future navigation system, and that the date set for the implementation of this new cartographic system is 1 January 1998.

1.22 The Meeting took note that, in order to promote the effective implementation of the WGS-84, the GREPECAS AIS Subgroup was coordinating specific actions with the Pan American Institute of Geography and History (PAIGH). The most important of these actions was the development of guidance material for reference use by States. Furthermore, it was reported that, for the same purpose, actions were being taken to improve the current level of coordination between civil aviation authorities and national cartographic institutes. On this point, and as a means of strengthening the coordination between the two national organizations, the Meeting formulated the following Conclusion:

CONCLUSION 5/4 COORDINATION BETWEEN CIVIL AVIATION AUTHORITIES AND GEOGRAPHIC INSTITUTE AUTHORITIES

That civil aviation administrations:

a) in close coordination with the geographic institutes responsible for national cartography, establish plans for effectively implementing the WGS-84; and

b) send in due time the implementation schedules resulting from the plans cited in the previous paragraph to the ICAO Regional Office.

ILS/MLS

1.23 Pursuant to the position taken by GREPECAS for presentation at the COM/OPS Divisional Meeting, and to the results of that Meeting, the ILS/MLS strategy to be submitted to the next GREPECAS Meeting for adoption by the CAR/SAM Regions, was presented to the Civil Aviation Authorities.

Regional Air Navigation Plan (ANP)

1.24 The Meeting was informed that, in keeping with the new Air Navigation Plan concept adopted by ICAO, the Council was scheduling a Special Air Navigation Meeting, to be held in the CAR/SAM Regions during the second half of 1998. The purpose of that meeting would be to draw up and approve the Regional Air Navigation Plan in the new format. This new ICAO Air Navigation Plan format specifies in detail the facilities, services and procedures required for international air navigation within a specific zone. This new ANP concept incorporates the ICAO global CNS/ATM system. The other document that is part of the plan is the "Facilities and Services Implementation Document" (FASID), which contains detailed information on the facilities and services of the States and the date foreseen for their implementation.

Institutional aspects of CNS/ATM implementation

1.25 The Meeting of Civil Aviation Authorities was informed in detail about the activities connected with institutional aspects carried out by ICAO from RAAC/4 to the present Meeting. In that report, the following items were emphasized:

a) The 31st ICAO Assembly had resolved (Resolution A31-5) to request the Council to bring together a group of legal and technical experts, as recommended by the Legal Committee at its 29th Session and in keeping with the powers proposed by the latter.

b) After analyzing the different options for setting up a Mechanism for Implementing the ICAO CNS/ATM Systems, in accordance with the recommendations of CASITAF, the ICAO Council decided to create a new permanent committee, the CNS/ATM Implementation Committee, and approved its terms of reference as set out in **Appendix B** to this section of the report.

c) The offer extended by the Government of the United States in a communication from the FAA Administrator dated 14 October 1994, of the standard positioning service (SPS), and the acceptance of that offer by the Chairman of the ICAO Council.

d) The letter of 13 February 1996 from the Minister of Transportation of the Russian Federation, containing a proposal to supply international civil aviation with a positioning channel of normal accuracy, through the GLONASS.

1.26 The Meeting examined Recommendation 4 of CASITAF on the harmful proliferation of ground earth stations (GESs) in the Aeronautical Mobile Satellite Service (AMSS), which was based on the fact that the unnecessary proliferation of GESs, in addition to making the use of the radio-frequency spectrum less effective, leads to a more complex and costly AMSS, thereby impairing global implementation of CNS/ATM systems. It was reported, as well, that CASITAF also agreed to include the issue of harmful proliferation of GESs in the work programmes of all the regional planning and implementation groups. Accordingly, the Civil Aviation Authorities agreed to adopt the following Conclusion:

CONCLUSION 5/5 HARMFUL PROLIFERATION OF GESs

That, through GREPECAS, the ICAO SAM Regional Office promote:

a) a coordinated region-wide effort to ensure that the AMSS includes the optimum number of GESs; and

b) the means to furnish services, placing emphasis on shared facilities.

Task Force on Institutional Aspects

1.27 The Meeting was informed that GREPECAS had set up a Task Force on Institutional Aspects relating to the implementation of CNS/ATM systems in the CAR/SAM Regions, that would report directly to the CNS/ATM/IC Subgroup. This Task Force, taking into consideration the ICAO Policy Statement on the implementation and operation of CNS/ATM systems, the guidelines included in the CAR/SAM CNS/ATM Regional Implementation Plan, as well as the experience of other Regions, States and international organizations, should provide assistance or suggest ways and means of providing assistance to CAR/SAM States that require it, on subjects such as:

a) the assessment of implementation and institutional arrangement options, taking into account the technical, operational, financial, organizational, cooperation and other institutional aspects relevant to CNS/ATM implementation, and

b) the performance of a cost-benefit analysis.

1.28 To carry out the above, the Task Force on Institutional Aspects should develop guidelines and proposals for applying institutional aspects related to CNS/ATM implementation in the CAR/SAM Regions. Elements requiring institutional arrangements should also be identified and proposals developed for their implementation.

Cost-Benefit Analysis

1.29 The Meeting was informed that the guide for the cost-benefit analysis of CNS/ATM systems published with ICAO Circular Letter 257-AT/106, describes a method the States can use to determine how they would be affected by the implementation of the ICAO CNS/ATM concept. The guide also explains procedures for:

a) identifying types of airspace suitable for the national airspace of each State.

b) assessing the demand for each area of airspace in the year 2010, according to the volume of aircraft classified by types, aircraft movement and flight times;

c) determining the configuration of the equipment for each airspace area that exists at present and that will exist in the year 2010, in accordance with the current approach and the CNS/ATM concept; also, for identifying the systems that will be superfluous after the implementation of CNS/ATM systems;

d) quantifying the costs of each airspace area by the year 2010, based on the proposed methodology;

e) quantifying the cost benefits/savings for each airspace area up to the year 2010, in keeping with ICAO methodology;

f) summarizing the results and presenting the cost-benefit ratios; and

g) carrying out sensitivity analyses of critical values.

1.30 The Meeting agreed that, despite the fact that the Terms of Reference of the aforementioned Task Force on Institutional Aspects include the task of advising States on economic matters, it would seem advisable for those administrations that have the necessary means to do so, to embark on the cost-benefit analysis, using the cited Guide. Accordingly, the Meeting adopted the following Conclusion:

CONCLUSION 5/6 COST-BENEFIT ANALYSIS

That the States of the SAM Region that have the necessary means to do so embark on cost-benefit studies using the Guide contained in ICAO Circular Letter 257 and submit the results at the coming CNS/ATM/IC/SG meetings, so that their experience may help to clarify the economic and technical aspects of CNS/ATM systems.

Institutional Aspects related to the Aeronautical Telecommunications Network

1.31 The Meeting considered that, to develop the ATN, it was necessary to globally coordinate matters connected with its organization, service quality, management, and problem resolution, among other things, and that the implementation aspects would gradually clear up as States defined an implementation policy based on its development, in order to establish an institutional architecture for the implementation and operation of said network. In that regard, the following scenarios, already mentioned in the FANS (PHASE II)/4 Meeting report, were brought up:

a) a State would take charge of implementing and operating an ATN network, to handle both national and international demands. Basically, this is the simplest scenario, with a minimum of shared provisioning and a maximum degree of State autonomy.

b) a State is appointed by a Group of States to provide ATN communication services within the group in question or between that group of States and the rest of the ATN internet.

c) a State hires one of the aeronautical communication service providers to supply several types of sub-network services, while maintaining its obligations at the national, regional and international levels within the ATN internet.

d) a communication service provider supplies the States with a complete set of services, including the provision of complete sub-networks and ATN internet services, allowing for a wider choice by the operator and reduced direct State participation.

Fifth South Atlantic Meeting (SAT/5)

1.32 The Representative of Brazil informed the Meeting that a meeting called by the AFI Region was held in Paris last April to address matters connected with air navigation in the South Atlantic; at that meeting, important actions were adopted that involved the airspace under Brazilian jurisdiction. He regretted that those actions had been adopted, considering that representatives of his State, Argentina and several African States that have responsibilities over the cited airspace were not present. He added that he had requested in due time that the meeting in question be postponed and offered to have Brazil host it.

Regional Project for CNS/ATM Planning and Implementation

1.33 The Meeting recalled that the 10th Air Navigation Conference, in endorsing the CNS/ATM systems concept, had acknowledged that the implementation of CNS elements to improve the ATM was a regional matter, and that its planning should be carried out by the regional planning and implementation groups, such as GREPECAS. The Conference also recognized that, due to the global nature of CNS/ATM systems, there was a need for an increasingly active participation of the ICAO Technical Cooperation Programme.

1.34 Therefore, based on Recommendation 8/5 of the 10th Air Navigation Conference, the Meeting took up the desirability of establishing a regional technical cooperation framework to help States identify and solve the problems facing them in the development of their national CNS/ATN plans and of guides and in the implementation of those plans in harmony with regional CNS/ATM transition plans, based on the methodology approved by GREPECAS.

1.35 In this connection, consideration was given to the possibility of setting up a regional technical cooperation project in the form of a trust fund that would have the following objectives:

a) To advise States on the national planning of the transition to the new CNS/ATM systems, in keeping with the implementation timetable agreed upon for the Region.

b) To advise States in defining the most suitable implementation options for their individual situation, including the definition of specifications for the required systems.

c) To provide information and advice to States in analyzing the cost-benefit ratio of implementing the different options of the new systems.

d) To give States assistance in implementing the 1984 World Geodetic System (WGS-84) and in establishing an integrated automated aeronautical information system for the Region.

e) As a result of the above-cited objectives, to advise States in drawing up a plan for the transition to the new CNS/ATM system, including personnel requirements for operating and maintaining the new CNS/ATM systems and the most convenient training mechanisms.

1.36 The activities to achieve the objectives of the new regional project would be carried out by technical teams of specialists in preparing the reference material and advising States that so required on the planning and implementation of the new systems; also, on the development, conduction and recommendation of training mechanisms for training the necessary human resources, including the participation of industry lecturers and attendance by the relevant personnel of civil aviation administrations and of users of CNS/ATM systems at important events.

1.37 The Meeting gave broad support to the proposal for establishing an ICAO regional technical cooperation project to assist the States plan and implement the new systems; accordingly, the following Conclusion was adopted:

CONCLUSION 5/7 REGIONAL TECHNICAL COOPERATION PROJECT FOR THE PLANNING AND IMPLEMENTATION OF CNS/ATM SYSTEMS

That ICAO submit for consideration by the civil aviation administrations of the Region a regional technical cooperation project document for providing advice and assistance to States in the planning and implementation of CNS/ATM systems.

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Terms of Reference of the CNS/ATM Implementation Committee

a) to review the progress made in the implementation of the global CNS/ATM plan and of the CNS/ATM implementation plans of States, international organizations, airlines and industry, and present proposals to the Council for facilitating the implementation of CNS/ATM systems at a worldwide level;

b) to analyze regional problems and requirements, including budgetary, economic and assistance aspects, and to advise the Council on ways to guarantee inter-regional harmonization and coordination;

c) to evaluate the trends and developments connected with the implementation of CNS/ATM systems and to offer the Council recommendations on possible:

   i) amendments to the global CNS/ATM plan reflecting these matters;

   ii) impacts of these matters on other related work of the organization;

d) to submit, through the Council President, and as required, the relevant aspects of its work to any of the Permanent Committees of the Council or to the Air Navigation Commission, for comments or advice.

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Item 2: Review of the accomplishment status of ICAO SARPs in the flight safety activities

2.1 On reviewing the accomplishment status of ICAO standards and recommended practices in Air Safety activities, the Meeting initially recalled that the International Civil Aviation Convention establishes certain principles and arrangements to allow for safe and orderly development of international civil aviation and establishment of international services on a basis of equal opportunities and their sound and economic operation.

2.2 It was also recalled that the Chicago Convention provides a suitable frame of reference for identifying and defining State responsibilities in regard to civil aviation management and the organization and methods to be implemented for fulfilling their mandate.

2.3 The contracting States implicitly assume their responsibilities by accepting the international standards and recommended practices (SARPs) related to air navigation safety, as well as the provisions of Convention Article 38--that a State deeming it unfeasible to fulfill all aspects of any of the international standards and procedures shall immediately notify ICAO of any differences between its own methods and those established by the international standard.

2.4 The Meeting also considered it important to emphasize that the State of the operator and the very operator share the responsibility for international flight safety.

2.5 Therefore, it is up to the State to develop and implement standards, procedures and regulations for the safety and inspection of civil flight operations, and to enforce operational and airworthiness regulations applicable to operators and aircraft, on the one hand, and, on the other, operators are responsible for the safety of their services and for observing the laws and regulations of the State to which they belong, overfly or are headed for.

2.6 The Meeting, on examining the problems some States in the SAM Region are facing in fulfilling their obligation regarding operational safety surveillance, considered that these tend to be the following:

a) National basic legislation, standards and/or regulations, as well as specific procedures, guides and/or manuals, are out-of-date or lacking;

b) Body of laws, standards, regulations and other inherent provisions has not been published and/or has not properly disseminated among users;

c) The operational and administrative institutional structure is inadequate and/or inoperative or insufficient;

d) Government inspectors have insufficient authority due to the limited backing from the authorities concerned;

e) Human resources lacking in number and qualifications and/or have little experience to perform the corresponding tasks satisfactorily;

f) Insufficient administrative support, equipment and supplies to back up the efforts of the professionals;

g) There are no plans for training and updating the knowledge of available human resources;

h) Financial resources are insufficient to maintain the administrative system and the appropriate and duly qualified professional staff needed.

2.7 The Meeting also considered that the causes of operational safety oversight deficiencies or problems faced by civil aviation administrations tend to be the following:

a) The low level of priority assigned by States to this activity and, as a result, the scarce financial resources and material means for supporting it;

b) The complex and/or lengthy procedures for updating standards, regulations and other pertinent provisions;

c) The lack of a suitable system for certifying and supervising air transport operators;

d) Frequent changes in the aeronautical authority and the consequent lag in compliance with the international obligations and responsibilities involved;

e) The instability of available human resources who, in turn, can be unmotivated, not technically prepared, poorly paid and/or insufficient in number to meet the demand for their services.

2.8 The analysis of the aforementioned problems and their causes resulted in a fruitful exchange of viewpoints among Authorities, who agreed on proposing a concrete action, particularly in regard to item a) of the indicated causes. In this respect, they will also request ICAO and LACAC to intercede with the highest State authorities so that the relevant hierarchy is granted to the institutional activities of civil aviation in their countries. In line with this, the Meeting adopted the following Conclusion:

CONCLUSION 5/8 INSTITUTIONAL REORGANIZATION

Inasmuch as the responsibility of each State for operational safety oversight is one of the precepts of the Chicago Convention, the Meeting of Civil Aviation Authorities of the SAM Region urges Civil Aviation Administrations of the Region that so require, to request the support of high-level State authorities for undertaking the institutional reorganization that will enable them to give the necessary priority to operational safety oversight and/or to resolve the lack of financial resources they confront in that area.

2.9 The Meeting was then informed of the activities of ICAO assistance mechanisms that are available in the SAM Region, as well as of the strategy of the Organization for bringing together and coordinating the efforts of these mechanisms aimed at assisting States with operational surveillance. It also learned about the forthcoming incorporation of the Operations Technical Officer in the SAM Regional Office in the next few days. In light of the foregoing, the Meeting deemed it advisable to follow the sequence given below for the use of the different assistance mechanisms available:

a) At the request of the State, evaluation of its present status by the ICAO operational safety oversight programme, at no cost whatsoever to the requesting State;

b) Report by the Programme to the State, with its recommendations, including the definition of the technical assistance needed;

c) Adoption of the Programme recommendations by the State and/or application for the required technical assistance to overcome its deficiencies in applying ICAO standards and recommended practices and other related procedures;

d) At the request of the State, formulation by ICAO and execution of a national technical cooperation project to provide it with advisory assistance in the updating of its regulatory and administrative system, training of its personnel and provision of the necessary elements to maintain the efficiency of its updated system;

e) Adoption of the recommendations formulated by the national technical cooperation project;

f) Participation of the relevant State personnel in the seminars, workshops and/or courses of the ICAO operational safety oversight programme and the RLA/95/003 Regional Project.

2.10 The Meeting recognized the efforts of ICAO to provide assistance to States, and considered that the different technical cooperation mechanisms established by the Organization for assisting States in this area constitute a highly positive contribution for helping civil aviation administrations in the SAM Region to overcome their shortcomings and difficulties in this field. In keeping with the above, the Meeting adopted the following conclusion:

CONCLUSION 5/9 UTILIZATION OF OPERATIONAL SAFETY OVERSIGHT MECHANISMS

The Fifth Meeting of Civil Aviation Authorities of the SAM Region recognizes that the different technical cooperation mechanisms established by ICAO to assist States with operational safety oversight activities are an effective tool for helping civil aviation administrations in this area; therefore, it urges States to adhere to them at their convenience.

Multinational or regional operational safety oversight body

2.11 The Meeting then reviewed the possibility of setting up a regional operational safety oversight mechanism to advise States that have problems in training or maintaining a full technical staff, on the performance of all of their operational safety oversight functions.

2.12 Accordingly, it first analyzed the scope of the RLA/95/003 Regional Programme, which includes plans to establish uniform standards and procedures for maintaining an airworthiness and an operational safety that are acceptable to all of the participating countries for application throughout the region, as well as a regional center for consultation on airworthiness standards and procedures.

2.13 To achieve harmonization and accomplish its objective, the RLA 95/003 Regional Programme provides for the establishment of a multinational group of experts in airworthiness and operations from the States designated as focal points--Argentina, Brazil and Chile--, the United States and other interested States, assisted by ICAO.

2.14 The Project also includes, among other activities, assistance to States in applying the uniform standards and procedures approved by the specialists of this multinational group of experts for adoption at the regional level.

2.15 The cited activities of the RLA/95/003 Regional Project could be considered a first step toward the creation of a multinational regional operational safety oversight mechanism.

2.16 The Civil Aviation Authorities agreed that the new airworthiness and air operations inspection body should be agile, dynamic and have supranational authority, in order to be able to help the States fulfill their responsibility for the application of ICAO standards and recommended practices; it should also operate under direct ICAO coordination through its Regional Office. An organization created for this purpose would also ensure the continued maintenance of accomplishments of the different mechanisms operating in the Region, guaranteeing that the uniform standards and procedures approved are continuously updated and that assistance is provided in their application.

2.17 After an active exchange of opinions, with the participation of all delegations, the proposal was unanimously approved, in keeping with the line of action indicated above. The following Conclusion was adopted:

CONCLUSION 5/10 MULTINATIONAL OPERATIONAL SAFETY OVERSIGHT BODY

Aware of the need to ensure the continued maintenance of achievements of the RLA/95/003 Regional Project regarding the adoption of a standardized regulatory system for operational safety oversight in the Region and other related aspects of common interest to the States, the Meeting of Civil Aviation Authorities of the SAM Region requests that ICAO study the feasibility of creating a multinational body to meet the common needs of States regarding the fulfillment of their responsibility for operational safety oversight and, in case of a positive result, that it adopt the relevant actions for its creation.

2.18 The Colombian Representative asked the Meeting to consider the need of his State to train a large number of people in the different specialized areas of operational oversight. Consequently, he requested study of the possibility of offering locally each of the courses planned under the RLA 95/003 Regional Project, thereby allowing more people to be trained at a lower cost over a shorter period of time.

2.19 The Representative of Peru then textually stated the following:
"Peru wishes to express to the Fifth Meeting of Civil Aviation Authorities of the South American Region its concern regarding the generalized use of the concept of experts, with no indication of the level of experience and knowledge regarding licensing, airworthiness and operations, and, in order to obtain the effective support of States, submits for consideration the possibility of having ICAO study the establishment of a professional level for experts and assigning them a category in keeping with their curricula, so as to know their professional level and apply for the assistance required by States in solving their individual problems. It also wishes to express its concern over how ICAO proposes to address the solution of item 7.3.1, sub-paragraphs c) and d) of Working Paper No. 5."

2.20 The Secretariat took note of the concern indicated by Peru and stated that it would report, by correspondence, on the procedures used by the Technical Cooperation area of ICAO for hiring experts.

2.21 The **Appendix** to this part of the Report contains Working Paper 5 for reference of the participants.

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ATTACHMENT 2

ATTACHMENT 3

ATTACHMENT 4

ATTACHMENT 5

ATTACHMENT 6

ATTACHMENT 7

Item 3: Airport economics

3.1 The analysis of this Agenda Item began with a panoramic assessment of the economic situation of the SAM Region; emphasis was placed on its economic recovery, low rates of inflation and market liberalization through sub-regional free market agreements, like the Andean Pact and Mercosur, and relevant bilateral agreements.

3.2 The analysis was pursued by pointing out that economic globalization, the dismantling of tariff and customs barriers and the strong trend toward a global opening of trade have altered the role played by States in regard to services and, as part of these, air transport. In one way or another, some more rapidly than others, all of the States in the Region would appear to be moving toward economic opening and flexibility and, of course, air services cannot be left outside this movement.

Organizational structures in civil aviation

3.3 As for the organizational structures in civil aviation, the Meeting agreed that there was no single model to represent the organization or structure taken on by a civil aviation body; in fact, in recent years there has been a rapid growth in the number of independent authorities established to operate airports and even, in some cases, air navigation services. The establishment of such autonomous authorities, which in general are not private enterprises, has favoured aspects connected with commercial airport management, with emphasis on concepts such as decentralization, entrepreneurial orientation of executive tasks and user-focused management.

3.4 It was then pointed out that privatization, decentralization and capitalization processes, or any other way of seeking autonomous airport management, called for detailed planning and study so that the steps to be taken meet the expectations of the Government, but, basically, the expectations of those involved in the activity: users, carriers and the aeronautical authority. To achieve this, it was necessary to have an aeronautical legislation sufficiently flexible to allow for the direct management of economic resources--this means full authority to set, collect and administer income in the form of charges, tariffs, rates, etc.

Financing of airport infrastructure

3.5 The sustained growth of passenger traffic, the greater liberalization of air transport and the increased level of economic activity in most of the States in the Region are having an impact on existing airport capacities and facilities, making it urgently important, in many cases, to enlarge or build modern terminals that will meet this increased demand.

3.6 The Meeting agreed that present economic policies tended to incentivate airport infrastructure financing without turning to government general revenues, in which priority was given to covering social needs--education, health and housing. It also agreed that several States of the Region were choosing to create the necessary conditions for getting the private sector to bring in the necessary funds for capitalizing airport activity, without having the State relinquish ownership of these public goods.

3.7 The Meeting also agreed that global experience had shown that there were different ways of introducing private participation in the development and operation of airport infrastructure, without neglecting any kind of infrastructure. Whatever the case and the private participation model adopted, it considered that care should be taken to make sure that the contract is awarded as a result of a process with a large amount of competition, thus ensuring the optimization of bids and of the business, from the outlook of both the civil aviation administration and the users.

3.8 The Representative of the United States pointed out that the new methods of financing airport development and the creation of new institutional structures to operate the airport system should inevitably be accompanied by a review of the basic relations among the parties that perform the following three functions: development of airport standards; enforcement of those standards; and airport operation. He also emphasized that, in order to ensure that airport safety standards and certification procedures are kept consistent with ICAO SARPs, governments should provide the legislation and regulations for supervising the airport system. Furthermore, he stated that, in accordance with the decentralization, the government can focus on regulations and certifications, while the private sector can concentrate its resources on airport development, management and operation.

3.9 The Chilean Director General of Civil Aeronautics presented interesting information to the Meeting on the process followed by his country in bringing the private sector into airport activities and described the policy established by that State with regard to private investment in the air transport sector. The information presented is contained in the **Appendix** to this Item.

Aeronautical service rates and costs

3.10 Regarding this subject, the Meeting agreed that the real costs of the services provided by civil aviation should be made known, considering that they should be the basis on which to establish aeronautical rates and charges, as provided for in the statement of the ICAO Council to the States on charges for the use of airports and en-route air navigation facilities (Doc. 9082). It was also pointed out that this information is considered essential for any study of medium- or long-term concession contract involving private investment.

Management of civil aviation administration performance

3.11 The Meeting considered that a basic element of the quality of management of any institution was its ability to measure its results; for the civil aviation sector, this was an unavoidable task involving some specific complexities, but one that offers interesting experiences from other hemispheres, especially regarding large volume airport activities.

3.12 It was also stated that one of the most useful tools for developing a result-oriented management was the measurement and evaluation of performance through a series of key indicators that, once established, offer the possibility of a more committed determination of targets in terms of the quality and quantity of the services delivered to users and of the effectiveness and efficiency with which they are provided.

3.13 The Meeting was reminded that in the manual on airport economics, several guidelines can be found on the subject, with criteria being given for establishing indicators in function of variables such as: passengers, freight, aircraft movement and human resources.

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THE PRIVATIZATION POLICY OF AIRPORT SERVICES IN CHILE

Presented by Chile

In recent years, Chile has experienced sustained economic growth, heavily underpinned by its external opening. The growth of air transportation has been a magnified reflection of this general growth, as bolstered by an open skies policy.

With the rise in the people's income level, there was a shift in preferences away from other means of transport toward the flight mode, due basically to its comparative advantage in terms of travel time.

The demand for international passenger air transport in Chile has risen 111% over the past five years--or at an average annual growth rate of 16%. Over the same period, the demand for domestic flights increased by 133%, *i.e.*, at an average annual growth rate of 18%.

Air freight climbed 23% internationally and 15% domestically during the past year.

On the other hand, Chile is undergoing a dynamic process of modernization, in which citizens, and particularly users of aeronautical services, grow daily in knowledge and professionalization. This makes them more demanding in terms of what they receive for what they pay. There are expectations of an improvement in the quality of life within a process of deregulation, privatization and liberalization, that has intensified the importance people give to their own efforts, to the detriment of the State and their trust in it.

The State has ceased to be a benefactor on which individuals depend for their success or failure; it is turning into a service provider, with a more horizontal than vertical relationship, in which the user demands standards of quality, efficiency and effectiveness, like those expected from private services.

This situation, which we believe will become more pronounced in the future, is that facing national civil aviation, which is institutionally structured as follows:

- The Board of Civil Aeronautics, JAC
- The General Bureau of Civil Aeronautics, DGAC
- The National Airports Bureau, DAP

The JAC, which is subordinate to the Ministry of Transportation and Telecommunications, is responsible for the direction and regulation of air transport.

The DGAC, a service responsible to the Commander-in-Chief of the Air Force, directs and manages public aerodromes and the services for assistance to, and protection of, air navigation, and regulates and supervises national aeronautical activity.

It is incumbent upon the DAP, which operates under the authority of the Ministry of Public Works, to build, repair and improve the airport infrastructure, such as runways, buildings, accesses, etc.

The sector policy supports the existing institutional structure and the functions of each of the institutions and defines the following basic principles:

1. **Separation of aeronautical services from commercial airport services**

   The separation of airport services from other techniques connected with aeronautical assistance and protection, traffic control, air navigation safety, supervision and control. Following this criterion, the management of commercial airport services will be given in concession to the private sector; technical aeronautical functions should remain in the hands of the General Bureau of Civil Aeronautics, together with responsibility for the airport area, as stipulated by law. Airports are encouraged to become active commercial centers in their respective regions.

2. **The sector policy should have the necessary degree of consistency with the policies for other modes of transport**

   Airport transport, especially the setting of rates, should be dealt with based on criteria and economic considerations similar to those applied to the other modes of transport: road, railroad, water, in order to allow for healthy competition, as well as greater integration among the various modes.

3. **Clear and precise definition of the role of the public sector in this area**

   The goods, means and resources allocated to the rendering and control of services provided to users of the civil aviation system will continue to be the responsibility of the public sector, *via* a specialized body such as the General Bureau of Civil Aeronautics. This assures the attainment of the levels of safety and reliability demanded by modern air navigation systems. This should be supplemented by the participation of the private sector in the provision and management of commercial concessions and infrastructure.

4. **Incorporation of economic rationalization criteria into management, rate setting and investment projects**

The self-financing of the national airport network and of the civil air navigation system should be sought, based on the resources contributed by all users of air transport, at rates that are equitable, non-discriminatory and representative of the real costs. State investment will be concentrated preferably in remote areas of our national territory, where this contribution plays an apparent social function.

The self-financing should be consistent with the necessary competitiveness of our airport operation, both in rates and level of service.

5. **Emphasis on the social profitability of projects**

A basic element of the policy is the maximizing of the social profitability of the resources the State has available for investment. The State is allocating the resources available for investment primarily to those sectors in which there are projects with a high social profitability--such as health, education, the struggle against poverty and some types of basic infrastructure--that are urgently needed and cannot be replaced by private investment.

6. **Seeks the collaboration and decided participation of the private sector in terms of both investment and management**

Investments in airport buildings intended mostly for private activities should be made by airport operators through concessions to the private sector. This policy will make it possible to release government resources for use in areas with higher social priority, as has been the policy of the Government.

The instruments foreseen for the incorporation of the private sector are the concession system, provided for in the law creating the General Bureau of Civil Aeronautics, and the Law of Public Work Concessions of the Ministry of Public Works.

7. **Forceful development of regional air transport**

Regional commercial air transport in the Chile of today is a basic tool for the modernization of the country. The national airport network must also cover transportation needs between points with less traffic density, but where the need for rapid and efficient transport is also present. The benefit is immediate and spurs all aspects of the regional economy.

8. **Lastly, the policy incorporates the future navigation concept**

The incorporation of future navigation concepts into the Air Navigation System of Chile, in order to achieve a degree of technological development that will make it possible to gain air access to the national territory from all latitudes without any operational limitation, contributing to the objectives of integration with the Asia-Pacific Region and optimization of air transport competitiveness.

This set of principles, constituting the policy for the airport sector valid for all airports, is embodied in a concrete and detailed Plan of Action that will enable inadequate facilities to be replaced and the demands generated by the firm growth of air transport to be met.

The investment, resulting primarily from concessions to the private sector, will be aimed at both passenger terminal improvement and airport service management, and freight infrastructure. The DGAC will finance the upkeep and modernization of air navigation systems.

Implementation of the Airport Policy

Passenger terminals will be built, maintained and operated by private parties.

The system to be used is the concession of public works, based on a bidding process that simultaneously addresses infrastructure development, operation of commercial airport services, and basic and maintenance services for those facilities.

The concessionaire proposes the facility design, in accordance with a draft project defined by the authority, that provides for the minimum spaces needed to operate the terminal during the concession period.

The bid for the terminal is awarded to the lowest tariff per embarked passenger and consists, in part, of the existing embarkation charge that the DGAC will pay the concessionaire once the terminal has been built and outfitted, for the duration of the concession. The portion of the embarkation charge not paid to the concessinaire will go to the DGAC.

The concessionaire will pay an annual fee for the operation of the commercial airport services, to be readjusted in accordance with the development of the airport sector. This payment will correspond to the income currently received by the DGAC for services under concession.

The commercial services may be rendered directly or through third parties. Monopolistic services cannot be provided directly by the concessionaire, but must be sub-licensed. To do that, the concessionaire must hold bids, auctions or other type of public offering that guarantees the transparency of the Bidders may propose other services not specified in the bidding conditions, during the bidding process and prior to the opening of the bids.

The bidders may propose other services not specified in the bases of the bid during the bidding process, prior to the opening of the offers.

The embarkation bridges will be built and financed by the concessionaire, but the DGAC will supervise their allocation and operate them.

A maximum charge will be established for passenger check-in counters and airline support offices and the allocation mechanism will be a part of the bidding conditions. In the particular case of the counters, an area allowing for the operation of all existing and future airlines will be established; the concessionaire may propose the construction of counters for exclusive airline use, provided that there are at least two areas, and these should be put up for public bid.

As for the freight terminal, it would be operated by a concessionaire under a multi-operator scheme. The bid would be awarded to the lowest payment per freight unit transferred to the concessionaire.

In keeping with the above, the role of the DGAC in the airports will be eminently technical; it will be responsible for air navigation services, the provision of services in all airport areas, excluding passenger and freight terminals and their accesses, and the management, through third parties, of services to aircraft in the apron, including embarkation bridges. It will also supervise and control the management of licensed airport areas by private parties.

Item 4: Other matters

4.1 **ATS Incidents in the CAR/SAM Regions**

4.1.1 The Meeting took note of the information provided by the IATA representative about the frequency of ATS incidents and near collisions reported in the Region. In that connection, he brought up the concern of the airlines, which need to identify the factors that contribute to a reduction of safety margins and the development of concrete corrective actions at regional level.

4.1.2 The IATA representative also reported on the results of the survey of ATS incident reports in the Region, emphasizing his desire to continue working closely with ICAO and Civil Aviation Administrations within a positive and constructive framework, for the purpose of establishing procedures in regard to ATS incidents.

4.1.3 In light of the findings of the survey cited in the previous paragraph, IATA proposed immediate actions to be taken by civil aviation authorities in the Region.

4.1.4 The Region took note of the information provided by the Secretariat regarding the measures adopted by both the CAR/SAM Regional Planning and Implementation Group (GREPECAS) and the SAM Regional Office in regard to some of the measures proposed by IATA, considering that the actions that had been taken by ICAO satisfactorily covered the suggestions made.

4.1.5 The Meeting recognized the need for States to duly investigate all ATS incidents reported and to communicate the findings of said investigations to the users and the South American Regional Office.

4.1.6 Finally, reference was made to the fact that the aeronautical system had the idea that discipline was the surest method of keeping errors from being made in the performance of duties. By applying an error/punishment policy, it was expected that users, controllers, dispatchers, etc., would respect the standards and make no mistakes, under penalty of suffering the consequences.

4.1.7 This policy shows certain deficiencies, such as:

a) not acknowledging that mistakes are a normal part of human behaviour;

b) placing all of the responsibility for the safety of air operations on the operational sector (pilots, controllers, etc.), thereby diluting the responsibility of managerial levels;

c) generating among users an attitude of keeping quiet for fear of repression.

4.1.8 The Meeting took note of the system established by a State, whereby safety incidents and deficiencies were reported on a voluntary and confidential basis, under conditions of guaranteed impunity, unless done with a guilty intent. This has made it possible to identify procedures, equipment, operations, etc., with a high potential for generating human errors and, consequently, causing incidents/accidents.

4.1.9 Inasmuch as the incidents do not involve damage or injury, there is less concern over guilt, legal liability or job security. Therefore, there is more information available, allowing for an in-depth analysis of the incidents that offer greater learning and feedback possibilities.

4.1.10 After taking note of the opinions of several representatives, who approved the GREPECAS mechanism for examining this matter, the Meeting agreed to adopt the following Conclusions:

CONCLUSION 5/11 REPORTING OF ATS INCIDENTS IN THE SAM REGION

IATA and SAM States are urged to inform the South American Regional Office in a timely manner about any ATS incidents in the Region, in order to allow the Regional Office to do their follow-up.

CONCLUSION 5/12 INVESTIGATION OF ATS INCIDENTS

States are urged to duly investigate any ATS incident reported, in order to find appropriate solutions and to inform users and the Regional Office about the findings of the investigations.

4.2 FAA Proposal to the Inter-American Development Bank

4.2.1 The Meeting took note of the information presented by the United States on its approach to the Inter-American Development Bank with a view to considering its participation in the funding of development projects and the improvement of the physical and institutional infrastructure of aviation, and urged the States of the Region to present their requirements to the Bank through its representative offices in the different countries.

4.2.2 In expressing its appreciation for that presentation, the ICAO Technical Cooperation Director described the efforts of the Organization to seek assistance from the international development banking system for investment projects in civil aviation; he emphasized that the World Bank is making a favourable shift toward supporting projects in the air transport sub-sector, which in the past had been rejected on ground that it was a self-sustainable activity. He reported, as well, that ICAO was planning to meet with the IADB to discuss funding possibilities for civil aviation projects.

4.3 Aviation Conference of the Americas

4.3.1 The Meeting took note of the information given by the representative of the United States with regard to the Aviation Conference of the Americas, to be held in Miami, Florida, on 23 to 27 September 1996. He reported that official invitations were being extended to the Ministries of Transport and Civil Aviation Directors of the States in the Region through diplomatic channels. He stated that the Conference would be an excellent forum where authorities could exchange viewpoints with key experts in the aeronautical financial field and service providers.

4.4 The FAA technical assistance programme for airports

4.4.1 The delegation of the United States presented a working paper on the possibilities of FAA assistance for airport improvements, especially in the areas of rescue, fire-fighting and emergency planning. In that connection, it expressed the desire to work jointly with ICAO in order not to interfere with its own programme.

4.4.2 The Secretariat thanked the delegation for its information, informing the Meeting about the arrangements being coordinated by the ICAO Regional Office with PAHO/WHO and ACI/LAC for the execution of a regional project for providing assistance on airport emergency planning. A survey had been made of the interest of States in the Region in participating in the project; the results had been positive and there were plans to hold seminars for airport managers and for personnel responsible for drafting and implementing emergency plans.

4.5 ICAO Technical Cooperation in the Latin American and Caribbean Region

4.5.1 The Secretariat reported on the present status of the ICAO technical cooperation programme in the Region, underscoring the information on the modalities of ICAO assistance to States, which is covered in the working paper presented on the subject.

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