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International Civil Aviation Organization
South American Regional Office

FIRST WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP (SAM IG/1)
REGIONAL PROJECT RLA/06/901

Lima, Peru, 21 to 25 April 2008

Agenda Item 4: Operational implementation of new ATM automated systems and integration of the existing systems

REQUIREMENTS FOR THE DEVELOPMENT OF GUIDELINES FOR IMPLEMENTATION OF NEW ATM AUTOMATED SYSTEMS AND INTEGRATION OF THOSE EXISTING IN SAM REGION, THROUGH THE HIRING OF EXPERTS

(Presented by Secretariat)

Summary

The purpose of this working paper is to present a proposal to hire the number of experts necessary for the development of material for new ATM automated systems implementation, including guidelines for SAM States and International Organizations application.

References:

- RLA/06/901 Project
- AP/ATM Meeting Report, Project RLA/98/003

1 Background

1.1 The experience acquired in AP/ATM meetings in RVSM and RNAV routes implementation, as well as in the development of PBN Road Map and other guidelines, were a considerable success in the CAR/SAM Regions, leading air navigation to a new safe and efficient scenario.

1.2 However, the development of necessary material for the aforementioned implementations, was obtained through the contribution of some participants of AP/ATM meetings. The complexity of RLA/06/901 project tasks will not allow that this work model continue, considering that experts involved in meetings do not have exclusive dedication to a particular project and normally are in charge of other activities in their respective administrations.

1.3 Initial studies for the integration of existing automated systems in the CAR/SAM Regions were developed under the auspices of Project RLA/98/003 and shall be the basis for the development of Project RLA/06/901 in the SAM Region ATM automation field.

1.4 Operational implementation of ATM automated systems and integration of those existing shall demand the development of detailed guidance material for SAM States and International Organizations, considering , mainly, three aspects:

a) Experience analysis of other regions

b) Obtain and complete information, considering present situation of States and International Organizations participating.

c) Analyse scenarios in the current and planned ATS operational environment, with a view to determine operational requirements for short and mid-term integration of existing automated systems and other operational requirements attending future ATM expectations, as well as the determination of systems requirements in non-automated ATS units.

2. Tasks for RLA/06/901 Project

1.5 Under Objective N° 3, item 1.2, Project RLA/06/901 establishes the tasks that will have to be performed for an operational implementation of new ATM automated system and integration of those existing. For a better reference, tasks that should be carried out in 2008, are included in **Appendix A** to this working paper.

1.6 Considering that the development of appropriate deliverables should be discussed in the Second Meeting of the Implementation Group (SAM/IG/2), Project RLA/06/901 should hire the necessary experts in order to perform tasks of items 3.1 and 3.2.

2 Suggested action

2.1 The meeting is invited to:

a) Review and agree the activities that will be assigned to experts involved in items 3.1 and 3.2 contained in Appendix A of this working paper, recommending the appropriate changes considered pertinent; and

b) Once the consultant task is concluded, that results be presented to the SAM/IG/2 Meeting.

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APPENDIX A

Activities of the expert to be carried out within Project RLA/06/901 with regard to implementation new ATM automated systems and integration of those existing

Results	Activities	Party responsible for each activity
3.1 Operational implementation of new automated ATM systems, and integration of the existing ones – (GPIs 6, 7, 9, 16, 17, and 18). ATM, CNS, AIS, MET, RO	3.1.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to: a) Existing facilities and equipment, especially for adjacent airspaces; b) Existing regional planning and documentation; c) Existing interface control documents (ICDs); d) Implementation of new ATM automation tools (minimum safe altitude warning, conflict prediction, conflict alert, conflict resolution advisory, path conformity control, functional integration of ground and aircraft systems); e) Implementation of flight data processing systems (FDPS); f) Implementation of radar data processing (RDPS) and ADS ATS surveillance systems, and exchange of radar/ADS data, including mono-radar, multi-radar, and radar data sharing; g) Implementation of digital communication networks at State and regional level; h) Implementation of ATM applications, such as radar control handoff, automated hands-free system, AIDC, CPDLC, etc.; i) Implementation of AIS data banks; j) Processes to ensure quality and timely distribution of aeronautical information; k) Functional integration of ground and aircraft systems; l) Implementation of MET data banks; m) Availability of meteorological information in support of ATM systems, including ✓ D-ATIS, D-VOLMET and other information (volcanic ash, tropical cyclones, storms, clear air turbulence, icing, wind shear, etc.) using up-linked ADS messages;	ATM, CNS, AIS, MET, RO

	✓ MET information from down-linked ADS messages (upper wind fields, real-time wind profiles, etc.) n) Implementation of collaborative decision-making (CDM) aspects for other ATM requirements, in keeping with the global ATM operational concept. Start-up date: week 105 Estimated duration: 2 weeks	
	3.1.2 Analyse the operational scenarios of current and planned ATS, with a view to determining the operational requirements for the short- and medium-term integration of existing automated systems and other operational requirements to meet future ATM expectations, as well as the identification of system requirements for non-automated ATS units. Start-up date: week 107 Estimated duration: 2 weeks	ATM, CNS, RO