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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 Item3: Assessment of the operational requirements to determine the implementation of communications and surveillance (CS) capacity improvement for en-route and terminal area operations.

**REQUIREMENTS FOR THE DEVELOPMENT OF GUIDELINES FOR IMPLEMENTATION
OF COMMUNICATIONS AND SURVEILLANCE (C-S) CAPACITY IMPROVEMENT OF EN-
ROUTE AND TERMINAL OPERATIONS THROUGH HIRING OF EXPERTS**

(Presented by Secretariat)

Summary

The purpose of this working paper is to present a proposal to hire the necessary number of experts for the development of required material for implementation of communications and surveillance (C-S) capacity improvement of en-route and terminal operations, 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 this work model to continue, considering that the experts involved in meetings do not have exclusive dedication to a particular project and are normally in charge of other activities in their respective administrations.

1.3 The implementation of communications and surveillance (C-S) capacity improvement of en-route and terminal operations, will demand the development of guidance detailed material for SAM Region States and International Organizations, considering , mainly, the following aspects:

- a) Experience analysis of other regions
- b) Obtain and complete information, considering present situation of States and International Organizations participating.
- c) Analyze the operational environment scenario of present and planned ATS with the purpose to determine the operational requirements for communications and surveillance systems improvement in a short and medium term, as well as other operational requirements which will absorb ATM future expectatives.
- d) Identify GNSS implementation requirements in a medium and long term for support in all flight phases.

2. CNS Tasks for RLA/06/901 Project

2.1 Under Objective N° 1, item 1.3, Project RLA/06/901 establishes the tasks that will have to be performed for the implementation of communications and surveillance (CNS) capacity improvement. For a better reference, tasks that should be carried out in 2008, are included in **Appendix A** to this working paper.

2.2 Considering that the development of appropriate deliverables should have to be discussed in the Second Meeting of SAM Implementation Group (SAM/IG/2), Project RLA/06/901 should hire the necessary number of experts in order to perform tasks of items 1.3.1, 1.3.2 and 1.3.5.

3 Suggested action

3.1 The meeting is invited to:

- a. Review and agree the activities that will be assigned to experts involved in items 1.3.1, 1.3.2 and 1.3.5 of Appendix A of this working paper, recommending the appropriate changes considered pertinent; and
- b. Once the consultant task is concluded, results are to be presented to the SAM/IG/2 Meeting.

APPENDIX A

Activities of the expert to be carried out under Project RLA/06/901 with regard to the implementation of communications an surveillance (C-S) capacity improvement

Results	Activities	Party responsible for each activity
<p>1.3 Implementation of communication and surveillance (CNS) capacity improvements for en-route and terminal area operations – (GPIs 6, 7, 9, 17, 18, and 22)</p>	<p>1.3.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to:</p> <ul style="list-style-type: none"> a) Existing CNS facilities and equipment; b) Regional planning and documentation on existing CNS; c) Aeronautical message handling systems (AMHS); d) Very high frequency data link (VDL) and high-frequency data link (HFDL); e) ATS interfacility data communication (AIDC); f) Automatic dependent surveillance by contract (ADS/C); g) Automatic dependent surveillance by broadcast (ADS/B); h) Multilateration, etc.; i) Communication protocols used. <p>Start-up date: week 22 Estimated duration: 2 weeks</p>	<p>CNS, ATM, RO</p>
	<p>1.3.2 Analyse the operational scenarios of existing and planned ATS, in order to determine the operational requirements for improving communication and surveillance systems in the short and medium term, as well as other operational requirements to meet future ATM expectations, using, <i>inter alia</i>, the following tools:</p> <ul style="list-style-type: none"> a) Aeronautical message handling system (AMHS), b) Very high frequency digital link (VDL), c) ATS interfacility data communication (AIDC), d) Automatic dependent surveillance by contract (ADS/C), e) Automatic dependent surveillance by broadcast (ADS/B), f) Multilateration, etc. <p>Start-up date: week 24 Estimated duration: 2 weeks</p>	<p>CSN/ATM/RO</p>