



Agenda Item 5: Operational implementation of new ATM automated systems and integration of the existing systems

Activities to be taken under consideration in the action plan of the Project Improve ATM Situational Awareness in the SAM Region

(Paper presented by the Coordinator of the Project Improve ATM Situational Awareness in the SAM Region)

SUMMARY	
This working paper has the aim of presenting the participants with information on the progress made to date with regard to the Project Improve ATM situational Awareness in the SAM Region.	
REFERENCES:	
<ul style="list-style-type: none"> • GREPECAS Project C2: Improve ATM situational Awareness in the SAM Region; • Regional Unified Surveillance Strategy for the CAR/SAM Region; • Air Navigation System Performance-Based Implementation plan for the SAM Region; and • Final report of SAMIG/12 meeting (Lima, October 2013). 	
<i>ICAO strategic objectives:</i>	<i>A – Safety</i> <i>E – Environmental protection</i>

1. Background

1.1 The ATM Automation and Situational Awareness Programme has three Projects under consideration: Automation (Project C1), Improve ATM Situational Awareness (Project C2) and Implement the New ICAO Flight plan Format (Project C3).

1.1 The last Project C2 deliverables were the “Guideline on technical/operational considerations for ADS-B implementation”, presented at SAM/IG/10, and the “Guideline for the presentation of MET products in graphical format” presented at SAM/IG/11, and delivered to the Secretariat (MET) for its review by the corresponding group of experts in meteorology.

2. Analysis

2.1 The **Appendix** presents the description of Project C2 – *Improve ATM situational awareness in the SAM Region*, as well as its situation to date. The activities of this Project take under consideration the drafting of guideline documents to support Sates in the implementation of improvements for ATM situational awareness.

2.2 With regard to the Project activities, the following deliverables have been completed:

- a) Evaluation of the current SAM surveillance systems' coverage;
- b) Guideline on technical/operational considerations for ADS-B implementation; and
- c) Guideline for the presentation of MET products in graphical format.

2.3 Within our planning, the following C2 deliverables will be presented at the next SAM/IG:

- a) Guideline on technical/ operational considerations for MLAT implementation; and
- b) Guideline on technical considerations in support of ATFM implementation.

3. **Action suggested**

3.1 The Meeting is invited to:

- a) Take note of the information provided;
- b) Analyse the progress made in the activities of the Project, shown in the **Appendix** to this working paper; and
- c) Analyse any other aspects related with this subject that the Meeting might deem necessary.

APPENDIX

SAM Region	PROJECT DESCRIPTION (PD)	PD N° C2	
Programme	Project Title	Starting Date	Ending Date
ATM Automation and Situational Awareness <i>(Programme Coordinator: Onofrio Smarrelli)</i>	<p>Improve ATM Situational Awareness in the SAM Region</p> <p><i>Project Coordinator: Paulo Vila (Peru)</i></p> <p><i>Contributing experts: José Rubira, Marcos Vidal and Jorge Otiniano (Peru); Javier Vittor (Argentina), André Jansen (Brazil)</i></p>	October 2011	october 2014
Objective	Develop guidelines supporting the implementation of improvements in the situational awareness of ATS units in the South American Region		
Scope	<p>Guidelines supporting the implementation of various applications, such as common traffic visualization, common meteorological conditions visualization and communications in general</p> <ul style="list-style-type: none"> • Analysis of the current surveillance infrastructure and identification of necessary improvements to support en route and terminal airspaces, airspace classification, PBN and ATFM • Implementation of ADS-B, ADS-c and/or MLAT surveillance systems at selected airspaces • Minimum common electronic information and data bases required in support of decision-making process and alert systems towards an interoperable situational awareness among centralized ATFM units • Implement flight plan data process systems (new FPL format) and data communications tools among ACC's • Implement advanced automation support tools to contribute towards the sharing of aeronautical information 		
Metrics	<p>Drafting of following documents:</p> <ul style="list-style-type: none"> • Regional surveillance strategy for the implementation of systems in support of improvement of situational awareness – revised • Evaluation of the surveillance systems coverage in the SAM Region - completed • Guideline on technical/operational considerations for ADS-B implementation – completed • Guideline on technical/operational considerations for MLAT implementation - completed • Guideline on technical considerations in support of ATFM implementation – completed • Guideline for the presentation of MET products in graphic format - completed 		
Strategy	<ul style="list-style-type: none"> • All tasks will be conducted by experts nominated by States and organizations of the SAM Region members of the Project <i>Improve ATM situational awareness in the SAM Region</i>, under management of the project coordinator. Communications among project members, as well as between the project coordinator and programme coordinator, shall be carried out through teleconferences and the Internet. • Once studies are completed, the results will be submitted to the ICAO programme coordinator as a final consolidated document for its analysis, review, approval and presentation at the GREPECAS PPRC 		

<p>Goals</p>	<ul style="list-style-type: none"> • Regional surveillance strategy for the implementation of systems in support to situational awareness improvement for July 2012 (completed) • Evaluation of SAM surveillance systems coverage for October 2012 (completed) • Guideline on technical/operational considerations for ADS-B implementation for June 2012 (completed) • Guideline for technical/operational considerations for MLAT implementation for May 2014 • Guideline for technical considerations in support of ATFM implementation for October 2013
<p>Justification</p>	<ul style="list-style-type: none"> • Improve situational awareness has been identified as a great support for ATM, contributing in the increase of safety and in flight efficiency • In addition, a close relationship with the other programmes and their respective projects is necessary, with the aim of collecting the operational requirements demanded by the mentioned applications and their respective tentative implementation dates • This project contributes to the implementation of modules B0 ASUR, B0 SURV, B0 NOPS and B0 AMET of the <i>Air Navigation System Performance-Based Implementation Plan for the SAM Region (SAM PBIP)</i>
<p>Related Projects</p>	<ul style="list-style-type: none"> • Air Navigation Systems in Support of PBN • Automation • ATFM • ATN Ground-ground and Air-ground Applications

Project Deliverables	Relationship with Performance Based Regional Plan aligned with ASBU	Responsible	Status of Implementation ¹	Delivery Date	Remarks
<i>Evaluation of surveillance infrastructure and identification of surveillance systems improvements</i>					
Evaluation of current surveillance systems coverage in the SAM Region	PFF SAM CNS 04 B0 ASUR	Paulo Vila (Peru)		October 2012	Presented as Appendix to the Guideline on technical/operational considerations for ADS-B implementation.
<i>Drafting of regional plan for ADS-B and MLAT implementation</i>					
Guideline on technical/operational considerations for ADS-B implementation	PFF SAM CNS 04 B0 SURF B0 ASUR	José Rubira (Peru) Marco Vidal (Peru)		October 2012	The Guideline includes comments from Brazil, Chile and Guyana, presented through SAM/IG/11-WP/06. The Meeting approved the Guide. Peru will later include considerations to determine the values recommended for NIC, SIL and NAC for operational application.
Guideline on technical/operational considerations for MLAT implementation	PFF SAM CNS 04 B0 SURF B0 ASUR	Andre Jansen (Brazil)		October 2014	The Guideline has not been started, as MLAT installation in Brazil is being awaited for.
Guideline on technical considerations in support of ATFM implementation	PFF SAM ATM 05 B0 NOPS	Javier Vittor (Argentina)		October 2014	The guideline will base itself on the CAR/SAM ATFM Manual approved through GREPECAS Conclusion 16/35

¹ **Gray:** Activity has not started
Green: Activity has or will deliver planned milestone as scheduled
Yellow: Activity is behind schedule on milestone, but still within acceptable parameters to deliver milestone on time
Red: Activity has failed to deliver milestone on time, mitigation measures need to be identified and implemented

Project Deliverables	Relationship with Performance Based Regional Plan aligned with ASBU	Responsible	Status of Implementation ¹	Delivery Date	Remarks
Guideline for the presentation of MET products in graphical format	PFF SAM MET 03 B0 AMET	Jorge Otiniano (Peru)		2013	The document was delivered to the Secretariat (MET) for its review by the corresponding meteorology specialists.
Resources necessary	Experts in the carrying out of the deliverables				

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