Agenda Item 2: Progress report on the implementation of activities approved by the Coordination Committee for 2019

(Presented by the Secretariat)

SUMMARY

This working paper presents the results of the activities carried out by RLA/06/901 project, since its Twelfth Coordination meeting to date.

References:

- RLA/06/901 Project Document; and
- Final Report of RLA/06/901 Project Twelfth Meeting of the Coordination Committee (RCC/12) (Lima, Peru, 23-24 August 2018).

1. Programme of activities for 2018

1.1 During the Twelfth meeting of the Coordination Committee (RCC/12), a review was made to the 2018 work plan and to the progress made up to the month of June 2018. As a result of this review, the meeting formulated Conclusion RCC/12-01- *Approval of the 2018 programme of activities—Revised*, which extended the 2018 work plan. Pending is providing information on the final result of the work programme.

1.2 The 2018 programme of activities implemented 95% of its budget. 92% of the planned activities were undertaken. **Appendixes A and B** provide a summary of the activities carried out and the budget spent. In addition, USD 7,184 were utilized in additional training and assistance activities requested by States. Worth mentioning is that a payment of USD 150,400 was made in 2018, which corresponded to the provision of the RAIM services for 2017 and 2018.

2. Project programme of activities for the period between 1 January and 15 May 2019

2.1 Conclusion RCC/12-02 approved the 2019 programme of activities, which is shown in **Appendix C**. As of 15 May 2019, the 2019 programme has implemented 55% of its budget, and has implemented 21% of its scheduled activities.

2.2 Various mechanisms have been used for the implementation of the programme of activities, such as meetings of the SAM Implementation Group (SAMIG), missions of experts from Project participating States for the drafting of any necessary documentation, plus the convening to courses, seminars and workshops on the different topics foreseen.

3. **Summary of activities undertaken**

3.1 With regard to Project **Result 1.1**, ***Implementation of performance-based navigation (PBN)***, the following activities were scheduled:

3.1.1 ***Seminar on the organization of instrument flight procedure design services (IFPD) (Lima, 8-12 April)***

- Carried out with the participation of 15 specialists from 9 States, and 2 from IATA.
- This event analysed the sustainability of the instrument flight procedure design services and its compliance with Annex 11 SARPs and Doc 10068 guidelines.
- The bases to start with the implementation of IFPD services quality assurance systems were established, achieving the understanding of Doc. 9906.
- An analysis was made regarding he Region's PANS OPS specialists needs to receive refresher courses and/or recurrent training courses

3.1.2 ***Fourth workshop on PANS-OPS implementation (Lima, 21-25 October)***

- Scheduled.

3.2 In relation to Project **Result 1.2**, ***Assistance for the implementation of air traffic flow management (ATFM) at airports***, the following activity was conducted:

3.2.1 ***Updating of the guidance document for the regional ATFM service (Lima, 11 March - 5 April)***

- The activity has been re-scheduled to take place through two two-week missions each, to convene two ATFM specialists. To be carried out on 19-29 August, and 2-13 September 2019.

3.3 As to Project **Result 1.6**, ***Action plan for the implementation of improvements to aerodrome design and management,*** the following activities have been planned to take place:

3.3.1 ***Fourth seminar/workshop on A-CDM (Lima, 29-31 October)***

- Scheduled.

3.3.2 ***Second seminar/workshop on airport planning (Lima, 17-20 September)***

- Re-scheduled for the second semester of 2019, together with the seminar on A-CDM, to obtain the participation of a higher number of specialists, given the relationship between both activities.

3.3.3 ***Support in the drafting of guidance documentation within the ACDM and ADPLAN Project (Lima, 4-15 November)***

- Programmed.

3.4 With regard to Project **Result 1.7**, ***Action plan for the implementation of functional improvements to the provision of aeronautical information services,*** *the following activities have been planned:*

3.4.1 ***Twelfth Multilateral Meeting/Workshop of the SAM Region for the transition from AIS to AIM - SAM/AIM/12 (Lima, 3 - 7 June)***

- Convened. Under process.

3.4.2 ***Basic Course on Geographic Information System (GIS) (Lima, September)***

- Programmed. Dates to be defined.

3.5 As to Project **Result 1.8**, ***Action plan for functional improvements to the provision of meteorological services for international air navigation,*** *the following has been scheduled:*

3.5.1 ***Workshop/Meeting on GREPECAS MET Projects for the SAM Region (Lima, 17-20 June)***

- Convened and in process.

3.6 The following activities have been programmed in respect of Project **Result 1.10**, ***Study of the SAM ATS route network optimisation****:*

3.6.1 ***Tenth Workshop/Meeting of the ATS Routes Network Optimisation (ATSRO/10) (Lima, 17-21 June)***

- Convened and in process.

3.6.2 ***Drafting of the SAM ATS Routes Network draft, Version 05 (Lima, 11 February to 1 March)***

- Carried out with the participation of two specialists from Venezuela and Peru. Version 05 of the SAM ATS Routes Network was prepared. It counted with the support of a specialist from COCESNA, to analyse the CAR Region airspace and its interface with the SAM Region.
- Of the 51 route optimisation proposals formulated in Version 05, 32 pertain to the CAR/SAM route interface and 19, to the SAM Region.

3.6.3 ***Drafting of a catalogue for the planning and follow-up to ATS routes implementation and regional flight procedures (Lima, 15 April to 3 May)***

- A specialist from Peru drafted the regional routes catalogue, an ATM planning tool enabling route designator analyses (ICARD data base), and observing any duplication that might arise as product of RNAV-5 implementation actions, and regional and domestic ATS airspace optimisation.
- Coordinations have started with ICAO HQ in order to standardize the designators, in accordance with the block of designators assigned to the Regional Offices.

3.7 **Other activities**

3.7.1 ***Twenty-third Workshop/Meeting of the SAM Implementation Group (SAM/IG/23) (Lima, 20-24 May)***

- Carried out with the participation of 84 participants from 13 SAM States, 1 NAM/CAR State (Observer), 4 international organizations, and 4 industry representatives.
- The SAM Airspace Study and Implementation Group was established, in order to improve the work of the SAM/IG regarding PBN planning and implementation.
- Activities related with RNAV to RNP activities were approved, as per the action plan requested by ICAO.

- Actions to include air traffic flow management (ATFM) elements within ATS contingency responses were approved, in view of the systems and ample knowledge available in the States of the Region. In addition, the meeting studied the proposal to update the CAR/SAM ATFM CONOPS, receiving valuable contributions.
- Improvements to impulse horizontal cooperation activities with RLA/06/901 were proposed.
- Coordination ensuring total AMHS interconnection in the SAM Region in 2019 have been completed.
- Installation, through REDDIG, of the ATS speech circuit between Corumba and Puerto Suarez airports has been completed.

3.7.2 ***Twenty-fourth Meeting of the SAM Implementation Group (SAM/IG/24) (Lima, 11-15 November)***

- Scheduled.

3.7.3 ***Workshop on the Identification and implementation of performance indicators of air navigation systems in SAM Region (Lima, 5 to 9 August)***

- Scheduled.

4. **Project annual evaluation**

4.1 For the project annual evaluation, a set of forms of four parts is used, composed of:

a) Project status and management indicators and results;
b) Project monitoring and control;
c) Survey on management indicators and results; and
d) Delivery dates calendar.

4.2 In the first part **(Appendix D)**, the products obtained with the implementation of the programme of activities approved by the Project Coordination Committee for the period under review, in relation to the immediate objectives, outputs and activities set forth in the project document, are exposed.

4.3 The second part **(Appendix E)** shows the project monitoring and control table whose purpose is to determine the work plan of the new period, activities and expected results for the year for each ICAO strategic objective.

4.4 The third part **(Appendix F)** includes the survey on management indicators and results that has been completed by participating States in the project, with their assessments and qualifications, including:

I. Current assessment of the project;
II. Assessment of the attainment of objectives;
III. Assessment of the project implementation and service delivery by ICAO; and
IV. Lessons learned.

4.5 The last part **(Appendix G)** shows the delivery dates calendar of the first three first parts.

5. **Action suggested**

5.1 The Committee is invited to:

a) Take note of the information proved;
b) Analyse the activities conducted and the results obtained, as per the information presented under sections 2, 3 and Appendixes A, B and E to this working paper;
c) Examine Appendixes D, E, F and G, which contain information on the Project's annual evaluation;
d) Analyse any other aspects on the subject that may be deemed necessary.

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APPENDIX A

RLA/06/901 PROJECT PROGRAMME OF ACTIVITIES FOR 2018

Result 1.1 Implementation of performance-based navigation (PBN)

Tasks	Remarks
Third workshop on PANS-OPS implementation	The workshop was carried out in Lima, from 24 to 28 September. 19 experts from 10 States and 3 IATA specialists participated, and 8 fellowships were granted. The workshop enabled to continue with the harmonisation and coordination of PBN instrumental procedures in the SAM Region, by improving States' capacity on PANS OPS design topics. In addition, regional analysis and planning started regarding RNAV transition nomenclature to PBN, in conformity with ICAO Circular 353.

Result 1.2 Assistance for the implementation of strategic air traffic flow management (ATFM) at airports

Tasks	Remarks
ATFM seminar	The Seminar was held in Lima, from 11 to 15 June, with the participation of 29 experts from 11 States, and 6 from other organizations and the industry. 14 fellowships were granted. The main achievement of the Seminar was the participants' acquirement of a regional vision regarding opportunities to manage capacity breaches, through the use of the CDM methodology. Also, the exchange of experience and good practices during the ATFM implementation process at various States.

Result 1.4 Assistance for the implementation of ATS Message Handling System (AMHS) and their interconnection

Tasks	Remarks
Advanced course on AMHS	Conducted in Santiago, Chile, from 6 to 10 August, the course counted with the participation of 26 experts from 10 States, having granted 9 fellowships. The Course was delivered by Mr. Manuel Garcia, Merideam. In addition to the training provided, five interconnections between COM AMHS centres of the region and one inter-regional interconnection (Brasilia-Madrid) were established. In addition, all States registered as External Operators in the Eurocontrol AMC.

Result 1.5 Assistance for the implementation of surveillance systems, multilateration and ATS in the Region

Tasks	Remarks
Drafting of a study to analyse the convenience and feasibility of adopting the satellite ADS-B service proposed by AIREON	In April, a specialist from Ecuador prepared the indicated study, which was presented at SAM/IG/21 meeting. A second mission was conducted in September, which permitted the completion of the technical-economical study of the ADS-B satellite service through the use of the conventional surveillance system, and ground ADS-B for en-route operations as of 10 000 ft. The final study was presented at SAM/IG/22, which established the Interop Working Group, charged to deal with this matter. During SAM/IG/23, the meeting noted that Brazil had signed a technical-operational agreement to carry out trials with the information derived from the satellite ADS-B system.

Result 1.6 Action plan for the implementation of improvements to aerodrome design and management

Tasks	Remarks
Seminar/workshop on airport planning for the SAM Region	The event was held in Lima, from 10 to 14 September, with the participation of 67 participants from 10 SAM States, 1 NAM State, 1 EUR State and 10 airport operators. The workshop counted with expositors from ICAO HQ Airport Planning Working Group, the ICAO Regional Office, the United Kingdom CAA, international experts from United States and Spain, Boeing, Airbus, IATA, ACI-LAC, Aeropuertos Argentina 2000, Landrum & Brown, ARUP, LeighFisher-JACOBS, DFS German Air Services (CANSO), United States Federal Aviation Administration (FAA), UAEAC Colombia, the Brazilian Civil Aviation Secretariat, and Lima Airport Partners. During the sessions, the workshop produced a roadmap for the preparation of a new SAM Airport Planning Project, to be presented at the next GREPECAS PPRC meeting. Information on the event is found at https://www.icao.int/SAM/Documents/2018-ADPLAN/

Result 1.7 Action plan for the implementation of functional improvements to the provision of aeronautical information services

Tasks	Remarks
Seminar on Procedures for Air Navigation Services for the Management of Aeronautical Information (PANS-AIM)	The Seminar was carried out in Lima, from 14 to 16 November. Therein, the process for the elaboration, objectives, scope and field of application of the PANS/AIM document was disseminated, which will become valid on 2020. 32 participants from 6 SAM States, 3 from another Region and 4 from other organizations attended, and 14 fellowships were granted. As to achievements of the event, contact was made between the AIM/SG and the SAM States with regard to AIM global implementation strategy. States capability for the joint management of aeronautical digital data was obtained, in addition to the preparation and implementation of the aeronautical data catalogues, requirement introduced by ICAO Annex 15, Amendment 40, and PANS/AIM, Appendix 1. States were also presented with the restructuring of the ICAO AIS documents, now aligned with the AIS to AIM roadmap.

Result 1.10 Study for the optimisation of the SAM ATS routes network

Tasks	Remarks
Workshop/meeting ATSRO/9	This event took place in Lima, from 16 to 20 July, counting with the participation of 23 specialists from 11 SAM States, and 1 IATA representative. 11 fellowships were granted. The ATS routes network, Version 04, initiatives were consolidated in this meeting, generating, by 11 October 2018, the implementation of 24 realigned routes, improved through the reduction of flight distances and extension of RNAV-5 route segments.

Result 2.2 Assistance for the implementation of aeronautical meteorology quality management systems (QMS MET) that include procedures required by ISO Standard 9001:2008 in correspondence with Annex 3 provisions, in at least 10 States

Tasks	Remarks
Seminar on Space Weather and ICAO Weather Information Exchange Model (IWXXM)	Held in Panama, from 16 to 20 July, 32 people from 11 SAM States, 17 from NAM/CAR States, and 2 EUR States participated. State capability to face space weather conditions was established. Contact was made between States and the ICAO MET Panel of Experts, to share information on the approval process to access the global advisory centres on space conditions. in addition, contact has been established with space weather teaching centres and laboratories, for the reception of space weather events and to explore the possibility of holding workshops related with their surveillance and forecasts.
Review and updating of the SIGMET Guide	In February, a specialist from the Region developed the CAR/SAM SIGMET Guide, which is currently under revision by the MET focal points and the CAR IAVW. The document is currently still under review by the CAR Region. Since there is no CAR/SAM forum, the reviews exclusively depend on the Exchange of electronic mails.

Result 3.2 Assistance for the implementation of data communications systems among ATS facilities (OLDI and AIDC)

Tasks	Remarks
Fourth meeting on AIDC implementation	The meeting was carried out with the participation of 20 specialists from 9 SAM States, 19 from other States, and 15 from other organisations and the industry. Nine fellowships were granted. This event followed-up on the regional implementation commitment on AIDC interconnection.
Practical course on AIDC	This event did not take place, in view that Venezuela has yet to implement the new SAGITARIO system. It is foreseen that the course will be held in the second semester of 2019.

Other activities

Tasks	Remarks
Workshop/Meeting on ATS for Contingency Plans and Letters Operational Agreement (ATS/CONT/PLAN)	The workshop was carried out in Lima, from 19 to 23 March, with the participation of 26 specialists from 11 SAM Sates. 16 fellowships were granted. During the event, 11 SAM States' ATS letters of agreement were updated, and the SAM Contingency Plan Coordination Committee was established, in conformity with ICAO Annex 11. *Note.- Due to reasons of force majeure, Brazil could not participate in the meeting, which was of significance since its ATS units interact and keep LOA's with 10 neighbouring States.*
SAMIG/21 All ASBU in PBIP. All air navigation implementation priorities outlined in the Declaration of Bogota	Held in Lima, from 21 to 25 May. It counted with 59 participants from 10 SAM States (Argentina, Bolivia, Brazil, Chile, Ecuador, Panama, Paraguay, Peru, Uruguay and Venezuela), one CAR Region Observer (United States), one international organisation (IATA) and four from the industry (AIREON, ATECH, IACIT y SITA). 16 fellowships were granted. Follow-up was given to PBN, ATFM, and airspace optimisation activities, as well as ATM automated systems implementation, in accordance with GREPECAS/18 agreements.

Tasks	Remarks
SAMIG/22 All ASBU in PBIP. All air navigation implementation priorities outlined in the Declaration of Bogota	Carried out in Lima, from 19 to 23 November. It counted with the participation of 63 representatives from 13 SAM States, one NAM State Observer, one international organization (IATA) and seven industry representatives (AEROMACS WIMAX FORUM, AIREON, ATECH, FREQUENTIS, SIEMENS BRASIL, THALES). 26 fellowships granted. PBN, ATFM, and airspace optimization activities were followed-up, as well as ATM automated systems implementation. An analysis was made to the post-implementation of the SAM ATS routes network, Version 04. The tasks to be undertaken by the PBN Group, through the SAM Airspace Implementation Study Group (GESEA), were established. In addition, a group to carry out technical-operational tasks related with systems in support of ATM (named GT-Interop), was also established. Both bodies will speed the implementation work of the SAM/IG, and facilitate the participation and support of States' specialists. As regards, ATFM, the possibility of operationally linking the services in the Region was under study.

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Appendix B - Revised

MONITORING AND CONTROL OF THE PROJECT
2018 WORK PLAN

Project Nº: RLA/06/901
Title of the project: Assistance in the implementation of a ATM regional system according to the ATM operational concept and the corresponding technological support for communications, navigation, and surveillance (CNS)

Objectives and Results of the Project	ICAO Objectives			Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates												Remarks and Inconvenients Encountered
	A	B	C		(1)	(2)	(2)/(1)				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Immediate Objective Nº 1																							
Result1.1	X		X																				
Implementation of performance-based navigation (PBN) – (GPIs 5, 7, 10, 11, 12 and 21)				Third workshop on PANS-OPS implementation				17/09/18	21/09/18	100%													
				- Training	15,000	12,000																	
				- Miscellaneous	500	337																	
				Sub-total	**15,500**	**12,337**	80%																
Resulta 1.2	X		X																				
Assistance for the implementation of strategic air traffic flow management (ATFM) at airports				ATFM Seminar				11/06/18	15/06/18	100%													
				- Training	21,000	21,000																	
				- Miscellaneous	500	430																	
				Sub-total	**21,500**	**21,430**	100%																
Result 1.4	X																						
Assistance for the implementation of ATS Message Handling System (AMHS) and their interconnection				Advanced course on AMHS				30/07/18	03/08/18	100%													
				- Course purchase	12,000	12,000																	
				- Missions	0	2,464																	
				- Training	13,500	17,235																	
				- Simultaneous interpretation	6,300	0																	
				- Miscellaneous	500	0																	
				Sub-total	**32,300**	**31,699**	98%																
Result 1.5	X																						
Assistance for the implementation of surveillance systems, multilateration and ATS in the Region				Drafting of a study to analyse the convenience and feasibility of adopting the satellite ADS-B service proposed by AIREON				22/04/18	28/04/18	100%													
				- Missions	4,998	2,182																	
				Sub-total	**4,998**	**2,182**	44%																
Result 1.6	X																						
Action plan for the implementation of improvements to aerodrome design and management				Seminar/workshop on airport planning for the SAM Region				12/09/18	14/09/18	100%													
				- Missions	9,419	2,787																	
				- Training	10,200	10,500																	
				- Miscellaneous	500	500																	
				- Simultaneous interpretation	0	6,300																	
				Sub-total	**20,119**	**20,087**	100%																
Result 1.7	X																						
Action plan for the implementation of functional improvements to the provision of aeronautical information services				Seminar on Procedures for Air Navigation Services for the Management of Aeronautical Information (PANS-AIM)				14/11/18	16/11/18	100%													
				- Missions	9,419	0																	
				- Simultaneous interpretation	3,780	3,780																	
				- Training	20,400	13,020																	
				- Miscellaneous	500	491																	
				Sub-total	**34,099**	**17,291**	51%																
Result 1.10	X		X																				

MONITORING AND CONTROL OF THE PROJECT
2018 WORK PLAN

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Objectives and Results of the Project	ICAO Objectives			Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates	Remarks and Inconvenients Encountered
Study for the optimisation of the SAM ATS routes network				Workshop/meeting ATSRO/9				16/07/18	20/07/18	100%		
				-Training	13,500	13,500						
				- Miscellaneous	500	356						
				Sub-total	**14,000**	**13,856**	99%					
				Preparation of SAM ATS routes network, Version 05				03/09/18	21/09/18	0%		
				- Missions	12,405	0						
				Sub-total	**12,405**	**0**	0%					
				TOTAL IMMEDIATE OBJECTIVE Nº 1	**154,921**	**118,882**	77%					
Immediate Objective Nº 2												
Resultado 2.2.	X		X									
Assistance for the implementation of aeronautical meteorology quality management systems (QMS MET) that include procedures required by ISO Standard 9001:2008 in correspondence with Annex 3 provisions, in at least 10 States				Seminar on Space Weather and ICAO Weather Information Exchange Model (IWXXM)				16/07/18	20/07/18	100%		
				- Missions	5,520	2,620						
				Sub-total	**5,520**	**2,620**	47%					
				Review and updating of the SIGMET Guide				18/02/18	08/03/18	100%		
				- Missions	5,104	5,822						
				Sub-total	**5,104**	**5,822**	114%					
				TOTAL IMMEDIATE OBJECTIVE Nº 2	**10,624**	**8,442**	79%					
Immediate Objective Nº 3												
Resultado 3.2	X		X									
Assistance for the implementation of data communications systems among ATS facilities (OLDI and AIDC)				Fourth meeting on AIDC implementation				16/04/18	20/04/18	100%		
				-Missions	2,748	0						
				-Training	13,500	13,500						
				- Simultaneous Interpretation	6,300	6,300						
				- Miscellaneous	500	501						
				Sub-total	**23,048**	**20,301**	88%					
				Practical course on AIDC				26/11/18	30/11/18	0%		
				-Missions	1,465	0						
				Sub-total	**1,465**	**0**	0%					
				TOTAL IMMEDIATE OBJECTIVE Nº 3	**24,513**	**20,301**	83%					
					190,058	**147,625**	78%			**83%**		
MEETINGS												
Result	X											
Meetings				SAM/IG/21 meeting/workshop				21/05/18	25/05/18	100%		
				-Training	24,000	24,000						
				- Miscellaneous	750	750						
				- Translation	0	499						
				Sub-total	**24,750**	**25,249**	102%					
				SAM/IG/22 meeting/workshop				19/11/18	23/11/18	100%		
				- Training	45,000	39,000						
				- Miscellaneous	750	928						
				- Simultaneous interpretation	0	6,300						
				Sub-total	**45,750**	**46,228**	101%					
				Workshop/Meeting on ATS for Contingency Plans and Letters Operational Agreement (ATS/CONT/PLAN)				19/03/18	23/03/18	100%		

MONITORING AND CONTROL OF THE PROJECT
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Objectives and Results of the Project	ICAO Objectives	Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates	Remarks and Inconvenients Encountered
		-Training	27,060	23,280						
		- Miscellaneous	411	411						
		-Interpretacion	6,300	6,300						
		Sub-total	**33,771**	**29,991**	89%					
		Follow-up to implementation of air navigation services (request from Colombia)				24/07/18	27/07/18	100%		
		-Missions	0	4,506						
		Sub-total	**0**	**4,506**	100%					
		Course on ASBU methodology (request from Chile)				11/11/18	16/11/18	100%		
		-Missions	0	2,024						
		Sub-total	**0**	**2,024**	100%					
		TOTAL MEETINGS	**104,271**	**107,998**	104%			**100%**		
		TOTAL IMMEDIATE OBJECTIVES	**190,058**	**150,392**	79%			**83%**		
		ADMINISTRATIVE SUPPORT	**44,000**	**33,754**						
		EQUIPMENT AND SUPPLIES	**7,000**	**17,855**						
		RAIM SERVICE								
		ADMINISTRATIVE EXPENSES	**34,532**	**50,921**						
		GRAND TOTAL	**379,861**	**360,920**	95%			**92%**		

MONITORING AND CONTROL OF THE PROJECT
2018 WORK PLAN

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Objectives and Results of the Project	ICAO Objectives	Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates	Remarks and Inconvenients Encountered

APPENDIX C

RLA/06/901 PROJECT 2019 TENTATIVE PROGRAMME OF ACTIVITIES

	ACTIVITY	COST USD
	COSTO TOTAL ESTIMADO DEL PROGRAMA TENTATIVO DE ACTIVIDADES PARA EL AÑO 2019	**USD 466,526**
1.1	**Implementation of performance-based navigation (PBN)**	**USD 31,000**
	Seminar on the organization of instrument flight procedure design services (IFPD)	**USD 15,500**
	Fellowships Lima 5 days	*USD 15,000*
	Coffee breaks	*USD 500*
	Fourth workshop on PANS-OPS implementation	**USD 15,500**
	Fellowships Lima 5 days	*USD 15,000*
	Coffee breaks	*USD 500*
1.2	**Assistance for the implementation of air traffic flow management (ATFM) at airports**	**USD 9,149**
	Updating of the guidance document for the regional ATFM service	**USD 9,149**
	Translation services	*USD 1,000*
	Air Ticket SAM	*USD 1,100*
	TA	*USD 188*
	DSA Lima	*USD 6,720*
	International insurance	*USD 93*
	UNDP	*USD 48*
1.6	**Action plan for the implementation of improvements to aerodrome design and management**	**USD 42,973**
	Fourth seminar/workshop on Airport Collaborative Decision Making (A-CDM)	**USD 14,090**
	Simultaneous interpretation	*USD 3,780*
	TA	*USD 188*
	DSA Lima	*USD 960*
	International insurance	*USD 13*
	UNDP	*USD 48*
	Air Ticket Montreal / USA	*USD 3,500*
	Coffee breaks	*USD 500*
	Fellowships Lima 3 days	*USD 5,100*
	Second seminar/workshop on airport planning	**USD 23,141**
	Simultaneous interpretation	*USD 5,040*
	TA	*USD 188*
	DSA Lima	*USD 1,200*
	International insurance	*USD 17*
	UNDP	*USD 97*
	Air Ticket Montreal / USA	*USD 3,500*
	Coffee breaks	*USD 500*
	Fellowships Lima 4 dias	*USD 12,600*
	Support in the drafting of guidance documentation within the ACDM and ADPLAN Project	**USD 5,743**
	Translation services	*USD 1,000*
	Air Ticket SAM	*USD 1,100*
	TA	*USD 188*
	DSA Lima	*USD 3,360*
	International insurance	*USD 46*
	UNDP	*USD 48*
1.7	**Action plan for the implementation of functional improvements to the provision of aeronautical information services**	**USD 71,889**
	Basic Course on Geographic Information System (GIS)	**USD 44,400**
	Coffee breaks	*USD 500*
	Fellowships Lima 4 dias	*USD 25,200*
	Basic Course on Geographic Information System (GIS)	*USD 18,700*
	SAM/AIM/12	**USD 27,489**
	Fellowships Lima 5 days	*USD 15,000*
	Simultaneous interpretation	*USD 6,300*
	Air Ticket SAM	*USD 2,200*
	TA	*USD 376*
	DSA Lima	*USD 2,880*
	International insurance	*USD 40*
	UNDP	*USD 193*
	Coffee breaks	*USD 500*

APPENDIX C

RLA/06/901 PROJECT 2019 TENTATIVE PROGRAMME OF ACTIVITIES

	ACTIVITY	COST USD
1.8	**Action plan for functional improvements to the provision of meteorological services for international air navigation**	**USD 25,742**
	Workshop/Meeting on GREPECAS MET Projects for the SAM Region	**USD 25,742**
	Simultaneous interpretation	*USD 5,040*
	Air Ticket SAM	*USD 1,100*
	TA	*USD 376*
	DSA Lima	*USD 2,400*
	International insurance	*USD 33*
	UNDP	*USD 193*
	Air Ticket Montreal / USA	*USD 3,500*
	Coffee breaks	*USD 500*
	Fellowships Lima 4 days	*USD 12,600*
1.10	**Study of the SAM ATS route network optimisation**	**USD 33,816**
	Preparation of the draft of the 05 Version of the Route Network of the SAM Region	**USD 11,578**
	Translation	*USD 1,000*
	Air Ticket SAM	*USD 3,300*
	TA	*USD 564*
	DSA Lima	*USD 6,480*
	International insurance	*USD 89*
	UNDP	*USD 145*
	Tenth Workshop/Meeting of the ATS Routes Network Optimisation (ATSRO/10)	**USD 15,500**
	Fellowships Lima 5 days	*USD 15,000*
	Coffee breaks	*USD 500*
	Drafting of a catalogue for the planning and follow-up to ATS routes implementation and regional flight procedures	**USD 6,737**
	Air Ticket SAM	*USD 1,100*
	TA	*USD 188*
	DSA Lima	*USD 5,280*
	International insurance	*USD 73*
	UNDP	*USD 97*
	Other activities	**USD 78,246**
	SAM/IG/23 meeting/workshop	**USD 26,800**
	Fellowships Salvador Bahia 5 days	*USD 25,050*
	Translation	*USD 1,000*
	Coffee breaks	*USD 750*
	SAM/IG/24 meeting/workshop	**USD 45,750**
	Fellowships Lima 5 days	*USD 45,000*
	Coffee breaks	*USD 750*
	Workshop on Identification and implementation of performance indicators of air navigation systems in the SAM Region	**USD 5,696**
	Air Ticket Montreal/EEUU	*USD 3,500*
	TA	*USD 188*
	DSA Lima	*USD 1,440*
	International insurance	*USD 20*
	UNDP	*USD 48*
	Coffee breaks	*USD 500*
	Fixed Costs	**USD 168,612**
	Administrative support	**USD 44,000**
	Secretary	*USD 26,000*
	Financial assistant	*USD 18,000*
	Miscellaneous	**USD 7,000**
	Miscellaneous	*USD 7,000*
	RAIM Service	**USD 75,200**
	RAIM Service	*USD 75,200*
	Overhead	**USD 42,412**
	Overhead	*USD 42,412*

SITUATION OF THE PROJECT AS OF 15 MAY 2019
AND MANAGEMENT AND RESULT INDICATORS

IMMEDIATE OBJECTIVE Nº 1	**Development and implementation of global air navigation plan initiatives that will lead to the transition from an air traffic management system based on ground systems to another one based on aircraft performance.**	
RESULT 1.1	**Implementation of performance-based navigation (PBN)**	
CURRENT STATUS	**Progress percentage 50%**	
PLANNED SCHEDULE	**Start up date: 08 Apr 19 Delivery date: 25 oct 19**	
ACTUAL SCHEDULE	**Start up date: 08 Apr 19 Delivery date: 25 oct 19 Deviation:X Cause:X**	
RESULT 1.1	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
1.1.1.Obtain and complete the information, learning about the current status in the participating States and organisations with respect to: a) Available CNS infrastructure, with the corresponding coverage and plans for future facilities; b) Characteristics of available ATM automated systems and future automation plans; c) Aircraft fleet operating in the CAR/SAM ATS route network and its RNAV and RNP capabilities, including capacity for arrival procedures based on the flight management system (FMS) and future plans of the users; d) Airworthiness and operational approval capabilities; e) Airports that might derive operational benefits from the use of RNAV and/or RNP; f) Status of implementation of WGS 84; g) Existing SIDs and STARs connecting international airports to ATS routes; h) Real-time and accelerated simulation of operations; i) Cost-benefit analysis of facilities; j) Safety assessment models; k) Regulation of GNSS use (secondary, primary means) l) Documentation concerning the training of air traffic controllers; m) Terminal control area design and control.		
1.1.2Analyse the application of GNSS to support all flight stages, including: a)The required ground navigation infrastructure for the operations contemplated in current plans, based on the development of system technology; b)En-route operations without using precision values with RNAV-5 (continental airspaces) and with RNP-4 (oceanic airspaces); c)TMA operations (RNAV 1) and approaches (RNP 0,3 and RNP AR), with ABAS; d)Operational benefits of using GBAS		
1.1.3.Develop a model action plan based on the information processed in 1.1.1 and 1.1.2, to be used in the implementation of PBN for enroute operations, according to the following regional planning: I. Short term (until 2010) RNP 10 oceanic airspace and RNAV 5 continental airspace. II. Medium term (2011 to 2015) RNP 4 oceanic airspace and RNP 2 selected continental airspaces.		
1.1.4 Determine and develop the necessary material for PBN implementation for en-route operations, in coordination with the participating States and organisations, taking into account environmental protection methods and procedures, and including the following aspects: a)PBN operational concept; b)Cost-benefit analysis; c)Aircraft and operator approval requirements and processes; d)Modification of national norms and airspace regulations; e)RNAV and RNP document formats to be included in the CAR/SAM web; f)Required AICs/NOTAMs and AIP supplements; g)Amendment to Doc 7030 as required; h)Amendments to the corresponding letters of agreement; i)Procedures for pilots and ATC;		

j)Procedures to accommodate non-RNAV and non-RNP aircraft where applicable; k)Transition procedures, if necessary; l)ATC training; m) Airspace safety assessment;		
1.1.5 Develop guidelines based on the information processed under 1.1.1 and 1.1.2, to be used by the participating States and organisations in the implementation of PBN in TMA and approach, including the following main tasks: a)Terminal area operations, including standard instrument departures and arrivals (RNAV 1 in radar environments with the proper navigation infrastructure and RNP 1 in non-radar environments without the proper DME coverage infrastructure); and b)Instrument flight rule approaches (RNP 0.3 in as many aerodromes as possible and in all international airports, and RNP AR in airports deriving operational benefits). II. Medium term (2011 to 2015) a)Terminal area operations, including standard instrument departures and standard instrument arrivals (extended application of RNAV1/RNP1 and mandatory use of RNAV1/RNP1—exclusionary airspace—in TMAs with greater air traffic density); and b)Instrument flight rule approaches (extended application of RNP 0.3 in as many aerodromes as possible and in all international airports, RNP AR in airports deriving operational benefits, and start-up of the application of GLS procedures).		
1.1.6Develop guidelines based on the information processed under 1.1.1, 1.1.2, and 1.1.3, to be used by the participating States and organisations in the implementation of PBN in TMA and approach, including the following main tasks: a)Cost-benefit analysis; b)Safety assessment; c)Design of procedures; d)Real-time and accelerated simulation of operations; e)ATC automated systems; f)Training of air traffic controllers; g)Aircraft and operator approval; h)Terminal control area design and management; i)Model regulations for GNSS application (primary, secondary means, operational restrictions, etc.).		
1.1.7 Provide assistance to the participating States and organisations for the implementation of the PBN implementation action plan, including the programming of the necessary coordination and training activities.	3.1.1 Seminar on the organization of instrument flight procedure design services (IFPD) (Lima, 8 12 April); and 3.1.4 Fourth workshop on PANS-OPS implementation (Lima, 21-25 October)	3.1.1. Completed. 7 fellowships; and 3.1.2. To be held.
1.1.8 Adquirir e implementar el servicio de predicción de la disponibilidad RAIM en la Región Sudamericana, incluyendo: a) Determinación de las especificaciones técnicas finales en base a las especificaciones acordadas por los Estados participantes; b) Preparación del llamado a licitación internacional para la implantación del servicio; c) Definición del criterio para la evaluación de las ofertas; d) Convocatoria a la licitación de conformidad con los procedimientos de la OACI aplicables; e) Absolución de consultas de los postores; f) Selección de la mejor oferta; g) Negociación y adjudicación del contrato con el postor seleccionado; h) Ejecución del contrato y su supervisión.		
1.1.9 Coordinar con los Estados la participación de sus representantes en la evaluación de las ofertas y en las pruebas de aceptación del servicio, asumiendo los costos involucrados con fondos que no sean del proyecto.		
1.1.10 Verificar el funcionamiento satisfactorio del servicio en el período de prueba y, de resultar conforme, suscribir las actas de aceptación final.		
1.1.11 Mantener el servicio de predicción de la disponibilidad RAIM las 24 horas al día, 7 días a la semana (24/7) en apoyo de los procedimientos PBN en ruta, área terminal y aproximación.		
1.1.12 Preparar un informe final sobre lo actuado, incluyendo las recomendaciones pertinentes.	Report of SAM/IG/23 meeting (Lima, 6-10 May); and Report of SAM/IG/24 meeting (Lima, 11-15 November)	Completed

RESULT 1.2	Assistance for the implementation of strategic air traffic flow management (ATFM) at airports	
CURRENT STATUS	Progress percentage 25%	
PLANNED SCHEDULE	Start up date: 11 mar 19 Delivery date: 05 abr 18	
ACTUAL SCHEDULE	Start up date: 11/03/19 Delivery date: 05/04/19 Deviation: X Cause: X	
RESULT 1.2	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.2.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to: a)The methods for estimating airport and ATC capacity; b) ATFM procedures for the following phase: • Airport strategic, • Airport tactical, • Airspace strategic, • Airspace tactical.		
1.2.2 Obtain and complete the information, learning about the current status in the participating States and organisations of the electronic databases required for the ATFM evolutionary phases, in relation to the following aspects: a)Flow management data processing and display: • Flight planning and flight plan processing data (FPL, RPL, etc.); • Airspace and airport structure data; • Display of the situation in the air; • Automatic messages to support decision-making (access to SLOTS, reporting of delays, alternate routes, etc.); • Monitoring of the operational status of air navigation infrastructure; • Capacity of the airport acceptance regime (AAR); • ATC capacity; • Air traffic demand; • Airspace structure and ATS route network; • Radio navigation aids, radar, etc.; • Aircraft performance. b)Surveillance system data (SSR, ADS, etc.; c)AIS/MAP (mapping, ATFM advisories, AIRAC updates, etc.); d)Meteorological information (MET); e)Data for historical and statistical analysis of air operations, meteorology, etc.; f)Communication systems in support of collaborative decision-making (CDM) with: • Other centralised ATFM systems; • Other FMUs and/or FMPs and/or ATS units; • Operators and users (airlines, general aviation, State aircraft, etc.); • Airport authorities; • Meteorological authorities; • Aeronautical information services. g)The necessary communication requirements to effectively support centralised air traffic flow management in its linkage with: • Other centralised ATFM systems; • FMUs, FMPs and/or ATS units involved; • Operators and users; • Airport authorities; • Meteorological authorities; • Aeronautical information services; • The transmission of ADS and radar data to the FMU and/or FMPs.		
1.2.3 Develop model action plans based on the information processed under 1.2.1 and 1.2.2, to be used by the participating States and organisations for the implementation of airport strategic ATFM.		
1.2.4 Develop guidelines, based on the information processed in the preceding activities, to be used by the participating States and organisations for the implementation of flow management units (FMUs) or flow management positions (FMPs) and for the incorporation of new procedures applicable to FMUs or FMPs concerning: a)Airport strategic ATFM; b)Airport tactical ATFM;		

c)Airspace strategic ATFM; and d)Airspace tactical ATFM.		
1.2.5 Identify and develop the necessary material for the implementation of the airport strategic ATFM, in coordination with the participating States and organisations, taking into account environmental protection practices and procedures, and including the following aspects: a)Cost-benefit analysis; b)Definition of data collection plans; c)Determination of the required automated systems, including performance parameters and the necessary tests and assessments; d)Updating of the SAM ATFM operational concept, if necessary; e)Drafting of a handbook on common operational procedures for air traffic flow management, including, inter alia, the following aspects: • Procedures applicable to the strategic, pre-tactical, and tactical phases; • Procedures for coordination and teleconferencing with FMUs/FMPs, ATS units, users, airports, and other organisations involved; • Collaborative decision-making procedures; • Methodology to determine airport and ATS capacity; • Procedure to keep ATFM databases permanently updated; • Procedures for pilots and ATC; • Required ATFM messages. f)Models of the required AICs/NOTAMs and AIP supplements; g)ATFM document formats to be included in the SAM web; h)Amendment to Doc 7030, if necessary; i)Amendments to the corresponding letters of agreement; j)ATC simulations; k)Harmonisation of applicable ANP requirements; l)ATFM training; m) Contingency plans.		
1.2.6 Provide assistance to the participating States and organisations for the execution of the ATFM implementation action plan, including the programming of the necessary coordination and training activities.	3.2.1 Updating of guidance material for the regional ATFM service	In progress
1.2.7 Draft a final report of the activities carried out, including relevant recommendations.		
RESULT 1.3	**Implementation of communication and surveillance (CNS) capacity improvements for en-route and terminal area operations**	
CURRENT STATUS	**Progress percentage 0%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X** **Deviation: X Cause: X**	
RESULT 1.3	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
1.3.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to: 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.		
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, inter alia, the following tools: 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.		

1.3.3 Develop a strategy for the implementation of communication, navigation, and surveillance improvements in the SAM Region, taking into account the information obtained in the preceding activities.		
1.3.4 Develop a model action plan, based on the information processed in the preceding activities, to be used by the participating States and organisations in the implementation of improvements to CNS capabilities for en-route and terminal area operations, including the inputs and the programming of the necessary coordination and training activities.		
1.3.5 Follow up on the implementation of CNS facilities and capacity improvements for en-route and terminal area operations in the SAM Region, including the programming of the necessary coordination and training activities.		
1.3.6 Draft a final report on all the activities carried out, including the relevant recommendations.		
RESULT 1.4	**Assistance in the implementation of ATS message handling systems (AMHS) and their interconnection**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 1.4	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.4.1 Obtain and complete information, taking into consideration the current situation in the States and the situation of the ICAO SARPs, with respect to: a) Review of the regional AMHS (CAAs) routing plan; b) IP addressing used in the Region for implemented aeronautical applications; c) Review of the general technical AMHS specifications drafterd throughRLA/03/901 project; d) Review of the regional communications infrastructure to support the AMSH application; e) Operational requirements for AMHS application.		
1.4.2 AMHS interconnection in the SAM Region: a) Drafting of the SAM AMHS routing list; b) Drafting of an IP (Ipv4) addressing plan; c) Drafting and implementation of AMHS communications protocol trials between AMHS and MTAs, and between MTAs and UAs; d) Study on band width requirements necessary, both domestically and regionally, for the AMHS circuits; e) AMHS IP safety analysis; f) Study for the improvement of national and regional networks for the AMHS application; g) Study of new services to be transmitted through the AMHS application (ATS, MET, AIS, etc.).		
1.4.3 Establishment of a regional entity to manage offline AMHS addressing, considering the following activities: a) Analyse the current operation of the off-line management centre for AMHS addressing at Eurocontrol (AMC); b) Analyse the current interaction of the AMC with other ICAO Regions, in particular the SAM Region; c) Study the requirements necessary to implement a regional AMC centre, the requirements necessary for the integration of the AMC into Eurocontrol, and others that may arise.		
1.4.4 Drafting of regional guidance for the implementation of AMHS and their interconnection.		
RESULT 1.5	**Assistance for the implementation in the Region of surveillance systems, multilateration and ADS**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date : X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 1.5	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.5.1 Obtain and complete information on multilateration and ADS, with regard to: a) Study of multilateration and ADS systems (ADS C and ADS B) installed in the SAM Region and other ICAO regions; b) Status of ICAO SARPs on new surveillance systems (multilateration, ADS, etc.)		

1.5.2 In accordance with the unified strategy for the implementation of surveillance systems developed by GREPECAS, prepare a regional guidance document for the implementation of multilateration and the ADS, that contains: a) A study of operational surveillance requirements that could be covered through multilateration and ADS; b) A trial protocol for ADS B; c) Information on the current and planned capacity of the aircraft fleet in the Region that can support the ADS application (ADS C, ADS B); d) Support for the holding of ADS B trials; e) An analysis of the communications requirements to support multilateration and ADS B applications.		
RESULT 1.6	**Implementation of improvements to aerodrome design and management**	
CURRENT STATUS	**Progress percentage 0%**	
PLANNED SCHEDULE	**Start up date: 17 set 19 Delivery date 15 nov 19**	
ACTUAL SCHEDULE	**Start up date: 17 set Delivery date: 15 nov Deviation: X Cause: X**	
RESULT 1.6	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.6.1 Obtain and complete the information, learning about the current status of international aerodromes in the participating States, including: a) Available runways and their characteristics b) Design and utilisation of the movement area; c) Number, location, and utilisation modality of aircraft parking positions; d) Available handling services; e) Aircraft arrival and departure procedures; f) Flight scheduling; g) Number of operations during peak hours.		
1.6.2 Develop a model action plan to be used by the participating States and organisations for the implementation of improvements to the design and management of international aerodromes, with a view to: a)Using aerodrome resources and ground handling services more efficiently; b)Reducing delays; c)Achieving greater predictability in flight programming; d)Increasing capacity by improving aircraft arrival, parking, and departure procedures; e)Improving coordination among all parties, in order to make efficient use of parking areas; f) Optimising collaborative decision-making processes among ATM service providers, vehicle operators and aircraft operators; g)Optimising the use of the movement area by introducing the necessary structural improvements, such as: • Additional taxiways; • Runways that run parallel to the main runways for two-way traffic; • Additional runway exits, including high-speed or fast-exit taxiways; • Improved lighting and signs, etc. h)Sharing key data on flight programming among all stakeholders; i) Optimising surface traffic through improved organisation of ground vehicle movement in the manoeuvring area; j)Reducing runway occupation time, taking into account: • Airspace user performance; • ATS provider performance; • Surface area design; • Aircraft performance capabilities; • Surveillance capabilities; • Aircraft spacing; • Meteorological limitations; • Application of improved procedures to minimise spacing. k)Increasing safety and environmental protection.		

1.6.3 Develop guidelines based on the information processed under 1.6.1 and 1.6.2, to be used by the participating States and organisations for the implementation of international aerodrome design and management improvements that imply increasing capacity and reducing holding times.		
1.6.4 Provide assistance to the participating States and organisations for the implementation of the model action plan, including the programming of the necessary coordination and training activities.	3.5.1Fourth seminar/workshop on A-CDM (Lima, 29-31 October), 3.5.2Second seminar/workshop on airport planning (Lima, 17-20 September); and 3.5.3 Support in the drafting of guidance documentation within the ACDM and ADPLAN Project (Lima, 4-15 November)	To be carried out.
1.6.5 Draft a final report on the activities carried out, including the relevant recommendations.		
RESULT 1.7	**Implementation of functional improvements to the provision of aeronautical information services**	
CURRENT STATUS	**Progress percentage 0%**	
PLANNED SCHEDULE	**Start up date: 03 june 19 Delivery date: set 19**	
ACTUAL SCHEDULE	**Start up date: 03 june 19 Delivery date: set 19 Deviation: X Cause: X**	
RESULT 1.7	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.7.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to aeronautical information services, including: a) Quality management systems; b)ATM, RNAV, and RNP requirements; c)Computer-based navigation system requirements; d)Availability of aeronautical information data banks; e)Availability of an automated AIP; f)Availability of electronic information; g)AIS automation plans; h)Implementation of the WGS-84 geodetic reference system; i) NOTAM contingency plan availability (national/international).		
1.7.2 Develop a model action plan, to be used by the participating States and organisations in the implementation of AIS improvements that will: a)provide quality-assured and real-time aeronautical information on terrain and obstacles; b)ensure the timely distribution of information; c)facilitate coordination among the various members of the ATM community; d)improve efficiency and safety; e)ensure that all members of the ATM community have the same information when making collaborative decisions; f)improve situational awareness of pilots during en-route, terminal area, and aerodrome operations; g)enable the completion of the implementation of the WGS-84 geodetic reference system; h)increase safety.		
1.7.3 Develop guidelines based on the information processed in 1.7.1 and 1.7.2, to be used by the participating States and organisations in the implementation of functional improvements to the provision of aeronautical information services		
1.7.4 Provide assistance to the participating States and organisations for the implementation of the model action plan, including the programming of the necessary coordination and training activities.	3.6.1 Basic Course on GIS (Lima, September); and 3.6.2 SAM/AIM/12 (Lima, 3-7 June)	To be carried out.
1.7.5 Prepare a final report on the activities carried out, including the relevant recommendations.		
RESULT 1.8	**Implementation of functional improvements to the provision of meteorological services for international air navigation**	
CURRENT STATUS	**Progress percentage 0%**	

PLANNED SCHEDULE	**Start up date: 17 june 19 Delivery date: 20 june 19**	
ACTUAL SCHEDULE	**Start up date: 17 june 19 Delivery date: 20 june 19 Deviation: X Cause: X**	
RESULT 1.8	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.8.1 Obtain and complete the information, learning about the current status in the participating States and organisations with respect to the meteorological services for international air navigation, including: a)ATM requirements; b)World area forecast system (WAFS) requirements; c)The international airways volcano watch; d)Tropical cyclone advisory system requirements; e)Use of data link for the transmission of meteorological information; f)Availability of meteorological information data banks; g)Automation of meteorological systems; h)Availability of electronic information; i)Plans for the automation of aeronautical meteorological services.		
1.8.2 Develop a model action plan to be used by the participating States and organisations for the implementation of improvements to the provision of MET services that will: a)Improve the availability of meteorological information in support of a seamless global ATM system; b)Improve the precision, timely distribution, and usefulness of the information produced by world area forecast, international airways volcano watch, and tropical cyclone advisory systems; c)Permit immediate access to real-time global meteorological information; d)Achieve the automation of meteorological systems; e)Assist ATM in the adoption of tactical decisions for aircraft surveillance, air traffic flow management, and flexible and dynamic aircraft routing; f)Increase safety.		
1.8.3 Develop guidelines, based on the information processed in 1.8.1 and 1.8.2, to be used by the participating States and organisations in the implementation of functional improvements to the provision of meteorological services to international air navigation.		
1.8.4 Provide assistance to the participating States and organisations for the implementation of the model action plan, including the programming of the necessary coordination and training activities.	3.5.1Workshop/Meeting on GREPECAS MET Projects for the SAM Region (Lima, 17 20 June)	To be carried out.
1.8.5 Draft a final report on the activities carried out, including the relevant recommendations.		
RESULT 1.9	**Training of at least XX officials from the CAAs in each topic related to the preceding results**	
CURRENT STATUS	**Progress percentage 0%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 1.9	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.9.1 Develop annual plans for the conduction of courses, seminars, workshops, and other activities that might be required concerning: a) Airspace planning; b) Construction of air navigation procedures; c) Airworthiness and operation approval; d) Safety assessment; e) Airspace monitoring; f) Performance-based navigation; g) Planning of air traffic flow management; h) National air navigation planning, incorporating the global ATM operational concept; i) New trends in communication systems; j) New trends in navigation systems; k) New trends in surveillance systems; l) New trends in flight test systems; m) Current and future use of the radio electric spectrum for aeronautical applications;	2019 work plan approved by RCC/12, including the holding of courses, seminars and workshops.	En progreso

n) Integration of automated systems; o) Other topics that may be required.		
1.9.2 Determine input requirements for organising and conducting each training activity.	Input necessary determined for the 2019 plan	In progress
1.9.3 Determine the costs of the inputs required for each activity, and the budget available for its execution.	Costs of input required, determined for the 2019 plan	Completed
1.9.4 Draft a working paper to submit the annual training plans and their logistic and financial requirements to the consideration and approval of the Project Coordination Committee.	Working papers for the 2019 plan, prepared	Completed
1.9.5 Examine and approve the annual training plans and their requirements.	2019 annual training plan approved by RCC/12	In progress
1.9.6 Prepare the information, the teaching material, and the presentations for each approved	Material for each event, prepared	In progress
1.9.7 Advise the participating States and organisations about the details of the training activities and the arrangements for their implementation.	Convening to each event submitted to participating States	In progress
1.9.8 Nominate the candidates for training activities, and introduce them to the respective ICAO Regional Office.	Candiates nominated by States received by the ICAO SAM RO.	In progress
1.9.9 Consider the requests for fellowships, and assign them according to the established budgetary provisions.	Fellowship requests processed, and notices of awards submitted by the ICAO SAM RO.	In progress
1.9.10 Carry out training activities and assess their results.	2019 work plan approved by RCC/12	In progress
1.9.11 Draft a report on the conduction of each activity and its results.	Reports prepared	In progress
RESULT 1.10	**Study of the optimisation of the ATS routes network**	
CURRENT STATUS	**Progress percentage 50%**	
PLANNED SCHEDULE	**Start up date: 15 apr 19 Delivery date: 21 jun 19**	
ACTUAL SCHEDULE	**Start up date: 15 apr 19 Delivery date: 21 jun 19 Deviation: X Cause: X**	
RESULT 1.10	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.10.1 Prepare a diagnosis on the current situation of the ATS route network in the SAM Region.		
1.10.2 Develop a plan for the drafting of a study that includes, among other things: a) List of products; b) Supporting tools for the conduct of the task; c) Compilation of data and methodology.	3.7.2 Drafting of a catalogue for the planning and follow-up to ATS routes implementation and regional flight procedures (Lima, 15 April to 3 May)	Completed; mission was carried out by an expert from Venezuela
1.10.3 Draft a study in conformity with the plan developed.	3.7.1 Tenth Workshop/Meeting of the ATS Routes Network Optimisation (ATSRO/10) (Bogota, 17-21 June)	To be carried out.
RESULT 1.11	**Proposed Regional Implementation Plan for Performance-based Air Navigation for the SAM Region (SAM ANIP)**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: 0 Cause: X**	
RESULT 1.11	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
1.11.1 Review existing documentation in the SAM Region, and globally, on the implementation of performance-based air navigation facilities and services.		
1.11.2 Develop a Performance-based Regional Air Navigation Implementation Plan for the SAM Region in accordance with the Global Air Navigation Plan and the Global ATM Operational Concept, that allows States to develop their national plans in harmony with the resulting regional plan, including: a) regional performance objectives; b) Generl implementation principles; c) the implementation strategy for each of the air navigation areas, such as ATM, CNS, AIM, MET, AGA/AOP and SAR; d) The expected evolution in each of the air navigation areas; e) Performance Framework forms (PFF) to be completed for all air navigation areas; f) The corresponding metrics that allow to measure the implementation achievement of the performance objectives.		

1.11.3 Develop an action plan for the implementation of SAM/ANIP, the drafting of additional regional documentation and guidance material for implementation by SAM States.		
RESULT 1.12	**Adoption of the appropriate multinational arrangements for the establishment and start-up of a regional organisation in charge of the implementation, management, and operation of multinational air navigation facilities.**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 1.12	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
1.12.1 Learn about the incorporation instruments approved by the States for the establishment of a regional organisation charged with the implementation, management, and operation of multinational air navigation facilities.		
1.12.2 Draft and propose an ICAO regional technical cooperation project document, based on the incorporation instruments of the new organisation, that will permit the establishment and initial operation of the latter.		
1.12.3 Draft a working paper supporting the submittal of the project document for its consideration and approval.		
1.12.4 Submit the working paper presenting the proposed project document to the consideration of the civil aviation authorities, requesting their comments.		
1.12.5 Make the necessary adjustments or changes to the project document, based on the comments generated.		
1.12.6 Submit the final project document proposal to the approval of the corresponding bodies of each State.		
1.12.7 Make arrangements for the implementation of the project as soon as it has been approved by the States concerned.		
IMMEDIATE OBJECTIVE Nº 2	**Implementation of AIS and MET quality assurance and safety management systems in SAM States, in keeping with international standards and recommended practices.**	
RESULT 2.1	**Implementation of AIS quality assurance systems in no less than 10 States, in keeping with the corresponding provisions contained in Annexes 6,11,14 and 15.**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.1	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
2.1.1 Obtain and complete the information, learning about the current status with respect to: a) SAM participating States plans for AIS automation implementation; b) Number of participating SAM States/organisations that count with, or are in the process of, implementing quality management systems (QMS) in AIS and in WGS-84; c) Problems encountered that are difficulting the implementation process, and measures necessary to allow it to continue.		
2.1.2 Plan and develop a seminar/workshop for the identification and implementation of specific procedures for AIS/MAP activities within the framework of quality management. The workshop should produce a checklist, with questions related to each procedure of the AIS activity harmonized to ISO 9001-2008, where a value criterion is defined to validate the processes and where the results can be measurable.		
2.1.3 On the results of the seminar/workshop, prepare a model action plan, based on the information obtained and on the available regional guidance material, to be used by the participating States for the implementation of a quality assurance system, including: a) Documented procedures; b) Inspection and testing methods; c) Equipment supervision and operations; d) Internal and external audits; e) Monitoring of corrective measures adopted; and		

f) Use of apropirate statistical analyses, when necessary.		
2.1.4 Assist the participating States and organisations in the implementation of the model action plan, including the programming of the necessary coordination and training activities		
2.1.5 Draft a final report on the activities carried out, including the relevant recommendations.		
RESULT 2.2	**Assistance for the implementation of quality assurance systems in Aeronautical Meteorology (QMS MET) including documented procedures required by ISO 9001:2008 in accordance with the provisions of Annex 3, in not less than 10 States**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.2	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
2.2.1 Obtain and complete information, taking into consideration the current situation in the participating States, with regard to: a) Plans of the participating States of the SAM Region on improvements to MET systems and implementation of automation in MET systems; b) Number of participating States/organisations in the SAM Region that have or are in the process of, implementing Quality Systems Management (QMS) in MET work processes; c) Problems encountered that hinder the implementation process, and necessary measures to allow it to continue.		
2.2.2 Develop the following documentation system: a) Quality and safety policies; b) Quality and safety management manual; c) Documented procedures required by ISO 9001: 2008, within the framework of the operational safety system: - Control of documents; - Control of records; - Internal audits; - Control of non-compliant products; - Risk assessment; - Corrective actions; - Preventive actions; d) Working procedures or instructions for an effective operation in aeronautical meteorology and risk assessment: - Working instructions for the aerodrome weather station; - Working instructions for the aerodrome meteorological office; - Working instructions for the meteorological watch office; - Working instructions for aeronautical climatology; - Working instructions for the World Area Forecast Centre (WAFC) of Washington; - Working instructions for the international data bank OPMET of Brasilia; - Working instructions for the Volcanic Ash Warnings Centre (VAAC) in Buenos Aires; - Working instructions for the Tropical Cyclone Warnings Centre (CAC) of Miami.		
2.2.3 Plan and develop a seminar/workshop for the identification and application of specific procedures for meteorological activities within the framework of quality management. The workshop should produce a checklist, with questions related to each MET activity procedure harmonised to ISO 9001-2008, where a value criterion is defined to validate the processes and where results can be measured.		
2.2.4 On the results from the seminar/workshop, prepare a model action plan, based on the information obtained and on the available regional guidance material, to be used by the participating States for the implementation of a quality assurance system, including: a) Documented procedures; b) Methods of inspection and testing; c) Monitoring of equipment and operations; d) Internal and external audits; e) Monitoring of corrective actions taken; and f) Use of appropriate statistical analysis, where necessary.		
2.2.5 Assist the participating States and organisations in the implementation of the model action plan, including the programming of the necessary coordination and training activities.		

2.2.6 Draft a final report on the activities carried out, including the relevant recommendations.		
RESULT 2.3	**Implementation of a State safety programme in no less than 10 States**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.3	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
2.3.1 Obtain and complete the information, learning about the current status of safety management and the establishment of a safety programme in the participating States.		
2.3.2 Develop a model action plan, based on the information obtained and the guidelines of the Safety Management Manual (Doc 9859), to be used by the States in the implementation of a State safety programme.		
2.3.3 Assist the participating States and organisations in the implementation of the model action plan, including the programming of the necessary coordination and training activities.		
2.3.4 Draft a final report on the activities carried out, including the relevant recommendations		
RESULT 2.4	**Implementation of a safety management system by the corresponding bodies in no less than 10 States**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.4	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
2.4.1 Obtain and complete the information, learning about the current status with respect to the adoption of a safety programme by the corresponding bodies in the participating States.		
2.4.2 Develop a model action plan, based on the information obtained and the guidelines of the safety management manual (Doc 9859), to be used by the participating States and organisations for the implementation of the safety management system that should be put in place by each certified aircraft operator, maintenance organisation, ATS provider, and aerodrome operator, and that will: a) Identify safety hazards; b) Make sure that the necessary corrective action is taken to mitigate risks and hazards; c) Contemplate the permanent supervision and periodic assessment of the level of safety achieved; d) Clearly define safety responsibilities; and e) Include the direct responsibility that top management has regarding safety.		
2.4.3 Develop guidelines to be used by the participating States for the establishment of a national acceptable level of safety, taking into account: a) safety efficiency indicators; b) safety efficiency objectives; and safety requirements.		
2.4.4 Develop guidelines to be used by the States for the adoption of a systemic approach to gradually and consistently address the various elements necessary to build an effective safety management system, comprising the following steps: a) Planning; b) Commitment of top management with respect to safety; c) Organisation; d) Identification of hazards; e) Risk management; f) Investigation capacity; g) Safety analysis capacity; h) Promotion of safety and training; i) Documentation on safety and information management; j) Safety oversight and safety efficiency monitoring.		
2.4.5 Assist the participating States and organisations in the implementation of the model action plan, including the programming of the necessary coordination and training activities.		
2.4.6 Draft a final report on the activities carried out, including the relevant recommendations.		

RESULT 2.5	**Adoption of safety assessment programmes by the corresponding organisations of each State**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.5	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
2.5.1 Obtain and complete the information, learning about the current status with respect to the adoption of safety assessment programmes by the corresponding organisations in the participating States and organisations.		
2.5.2 Develop a model action plan, based on the information obtained and the guidelines of the safety management manual (Doc 9859), to be used by the participating States and organisations for the adoption of a safety assessment programme by the corresponding organisations, that will permit: a) The identification of requirements regarding when safety assessments should be conducted; b) The drafting of safety assessment procedures; c) The development of organisational hazard classification criteria for the hazards identified; d) The development of safety assessment acceptance criteria; and e) The development of documentation and process requirements to maintain and disseminate the safety information derived from the assessments.		
2.5.3 Assist the participating States and organisations in the implementation of the model action plan for safety assessment, including the programming of the necessary coordination and training activities, and taking into account the following steps: a) Drafting (or obtention) of a complete description of the system to be assessed and of the environment where the system will operate; b) Identification of hazards; c) Rating the seriousness of the consequences of a possible hazard; d) Identifying the likelihood of occurrence of a hazard; e) Risk assessment; f) Risk mitigation; g) Drafting of safety assessment documents.		
2.5.4 Draft a final report of the activities carried out, including the relevant recommendations.		
RESULT 2.6	**Training of at least 100 officials in matters related to the preceding results**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 2.6	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
2.6.1 Develop training programmes to disseminate the safety culture among the corresponding organisations, and a modern prevention-based safety approach, taking into account the following factors: a) Legal and regulatory framework, based on ICAO standards and recommended practices; b) Application of scientifically-based risk management methods; c) Commitment by top management to safety management; d) A corporate safety culture that promotes safe practices, encourages safety-related communications, and enables active safety management, giving the results the same attention as that given to financial management; e) Effective application of standard operational procedures, including the use of checklists and information sessions; f) A non-punitive environment (or justice culture) in order to encourage an effective reporting of incidents and hazards; g) Systems to collect, analyse and share safety-related data generated by normal operations; h) Competent investigation of serious accidents and incidents that permits the identification of systemic safety-related deficiencies (instead of finding someone to blame);		

i) Integration of safety training (including human factors) for operational personnel; j) Forms of sharing the experience gained and best safety practices, through an active exchange of safety information (between companies and States); and k) Systemic safety oversight and efficiency monitoring, in order to assess safety efficiency and reducing or eliminating new problems.		
2.6.2 Identify the necessary requirements for organising and conducting each activity, following the sequence of actions defined for Result 1.9.		
IMMEDIATE OBJECTIVE Nº 3	**Develop a strategy for the operational implementation and integration of automated air traffic management systems, with a safe, gradual, evolutionary, and interoperable vision that facilitates the exchange of information and collaborative decision-making with respect to all the components of the ATM system.**	
RESULT 3.1	**Existing ATC automated systems integrated.**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 3.1	**DELIVERABLES/INDICATORS** **YEAR**	**REMARKS**
3.1.1 Update and complete the information collected under regional project RLA/98/003 with regrd to SAM automation, and develop: a) an interface control document (ICD); b) the interconnection of automated systems in the SAM Region.		
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.		
3.1.3 Considering the strategy for the integration and implementation of automated systems in the CAR/SAM Regions, contained in Appendix K to agenda item 3 of the GREPECAS/12 report, draft an action plan for the interconnection of ATC automated systems among adjacent ACCs in the SAM Region.		
3.1.4 Draft technical guidelines for the functional operation of ATM automated systems, including: a) New tools (minimum safe altitude warning, conflict prediction, conflict alert, conflict resolution advisory, path conformity control, functional integration of ground and aircraft systems); b)Input and output data and interfaces applicable to service functions and sub-functions; c)The functional breakdown required by all ATM components, in hierarchical order; d) Determination of the various operational applications, from the lowest to the highest functional level or interface; e) Technical requirements concerning interoperability, databases, equipped aircraft, software tools, etc., that will facilitate the implementation and integration of automated systems.		
3.1.5 Conduct a cost-benefit study for the implementation/integration of ATM automated systems.		
3.1.6 Develop bilateral or multilateral technical/operational agreement models, as appropriate, between States and international organisations responsible for adjacent airspaces and regions, with respect to the conduction of trials and the implementation/operational integration of automated ATM systems.		
3.1.7 Develop a plan of national and regional training activities for the personnel involved that will facilitate the implementation or integration of automated ATM systems.		
3.1.8 Give advice to the participating States and organisations regarding the implementation of the action plan for the automated systems and their integration, including the programming of the necessary coordination and training activities.		
3.1.9 Draft a final report of the activities carried out, including the relevant recommendations.		
RESULT 3.2	**Assistance for the implementation of data communication systems between ATS facilities (OLDI and AIDC)**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	

ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: X Cause: X**	
RESULT 3.2	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
3.2.1 Obtain and complete information, taking into consideration the current situation in the States and the situation of the ICAO SARPs, with respect to: a) Evaluation of the functioning of the existing OLDI and AIDC systems in the States of the Region; b) Necessary ATS operational requirements for OLDI, AIDC applications in the Region (flight notification, flight coordination, control transfer, etc.); c) Review of the existing national and regional communications infrastructure to support OLDI and AIDC applications in the Region.		
3.2.2 Prepare a regional guidance document for OLDI, AIDC implementation, which contains: a) Technical specifications for an OLDI/AIDC system; b) Possible solutions for AIDC systems interconnection in the Region; c) A trial protocol and its implementation for the interconnection of OLDI and AIDC systems in the Region; d) A study of bandwidth requirements for the interconnection of OLDI and AIDC systems at the national and regional levels; e) Mechanisms for AIDC/OLDI systems implementation; f) A study on the use of the IP protocol for the OLDI and AIDC application.		
3.2.3 Draft a final report of the activities carried out, including the relevant recommendations.		
RESULT 3.3	**Assistance for the implementation of the new flight lan format**	
CURRENT STATUS	**Progress percentage X%**	
PLANNED SCHEDULE	**Start up date: X Delivery date: X**	
ACTUAL SCHEDULE	**Start up date: X Delivery date: X Deviation: 4 Cause: X**	
RESULT 3.3	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
3.3.1 Assist States of the Region in the implementation of the new flight plan format in application of ICAO Doc 4444, 15th Edition, Amendment 1.		
3.3.2 Plan and develop the necessary meetings and training events to familiarize the personnel concerned with the implementation of the new flight plan format.		
3.3.3 Draft a final report of the activities carried out, including the relevant recommendations.		
MEETINGS	**DELIVERABLES/INDICATORS YEAR**	**REMARKS**
RLA/06/901 Project - Thirteenth meeting of the Coordination Committee RCC/13)	Annual review of activities and approval of the June 2019-2020 work plan.	In progress

Appendix E

MONITORING AND CONTROL OF THE PROJECT
2019 WORK PLAN

Proyecto Nº: RLA/06/901
Titulo del proyecto: Assistance in the implementation of a ATM regional system according to the ATM operational concept and the corresponding technological support for communications, navigation, and surveillance (CNS)

Objectives and Results of the Project	ICAO Objectives			Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates												Remarks and Inconvenients Encountered
	A	B	C		(1)	(2)	(2)/(1)				ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	
Immediate Objective Nº 1																							
Result1.1	X		X																				
Implementation of performance-based navigation (PBN) – (GPIs 5, 7, 10, 11, 12 yand21)				3.1.1Seminar on the organization of instrument flight procedure design services (IFPD)				08/04/19	12/04/19	100%													
				- Training	15,000	12,215																	
				- Miscellaneous	500	292																	
				Sub-total	**15,500**	**12,507**	81%																
				Fourth workshop on PANS-OPS implementation				21/10/19	25/10/19	0%													
				- Training	15,000	0																	
				- Miscellaneous	500	0																	
				Sub-total	**15,500**	**0**	0%																
Result 1.2	X		X																				
Assistance for the implementation of strategic air traffic flow management (ATFM) at airports				Updating of the guidance document for the regional ATFM service				11/03/19	05/04/19	0%													
				- Missions	8,149	0																	
				- Translation services	1,000	0																	
				Sub-total	**9,149**	**0**	0%																
Result 1.6	X																						
Action plan for the implementation of improvements to aerodrome design and management				Fourth seminar/workshop on A-CDM				25/06/19	27/06/19	0%													
				- Missions	4,710	0																	
				- Simultaneous interpretation	3,780	0																	
				- Miscellaneous	500	0																	
				- Training	10,200	0																	
				Sub-total	**19,190**	**0**	0%																
				Second seminar/workshop on airport planning				17/09/19	20/09/19	0%													
				-Missions	5,001	0																	
				-Training	12,600	0																	
				- Miscellaneous	500	0																	
				- Interpretacion	5,040	0																	
				Sub-total	**23,141**	**0**	0%																
				Support in the drafting of guidance documentation within the ACDM and ADPLAN Project				04/11/19	15/11/19	0%													
				- Missions	4,743	0																	
				- Translation services	1,000	0																	
				Sub-total	**5,743**	**0**	0%																
Result 1.7	X																						
Action plan for the implementation of functional improvements to the provision of aeronautical information services				Basic Course on Geographic Information System (GIS)				08/07/19	11/07/19	0%													
				-Training	25,200	0																	
				- Miscellaneous	500	0																	
				- Cost of course	18,700																		
				Sub-total	**44,400**	**0**	0%																
				SAM/AIM/12				15/07/19	19/07/19	0%													
				- Missions	5,689	0																	

MONITORING AND CONTROL OF THE PROJECT
2019 WORK PLAN

Proyecto Nº: RLA/06/901
Titulo del proyecto: Assistance in the implementation of a ATM regional system according to the ATM operational concept and the corresponding technological support for communications, navigation, and surveillance (CNS)

Objectives and Results of the Project	ICAO Objectives			Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates	Remarks and Inconvenients Encountered
				- Simultaneous interpretation	6,300	0						
				-Training	15,000	0						
				- Miscellaneous	500	0						
				Sub-total	**27,489**	**0**	0%					
Result 1.8	X											
Plan de acción de mejoras funcionales en la provisión de servicios meteorológicos para la navegación aérea internacional elaborado.				Workshop/Meeting on GREPECAS MET Projects for the SAM Region				12/08/19	15/08/19	0%		
				- Missions	7,602	0						
				- Interpretacion	5,040	0						
				- Miscellaneous	500							
				- Training	12,600							
				Sub-total	**25,742**	**0**	0%					
Result 1.10	X		X									
Study for the optimisation of the SAM ATS routes network				Preparation of the draft of the 05 Version of the Route Network of the SAM Region				04/02/19	22/02/19	0%		
				- Missions	10,578	0						
				- Translation	1,000	0						
				Sub-total	**11,578**	**0**	0%					
				Tenth Workshop/Meeting of the ATS Routes Network Optimisation				03/06/19	07/06/19	0%		
				- Training	15,000	0						
				- Miscellaneous	500	0						
				Sub-total	**15,500**	**0**	0%					
				Drafting of a catalogue for the planning and follow-up to ATS routes implementation and regional flight procedures				15/04/19	03/05/19	0%		
				- Missions	6,737	0						
				Sub-total	**6,737**	**0**	0%					
				TOTAL OBJETIVO INMEDIATO Nº 1	**219,669**	**12,507**	6%					
					219,669	**12,507**	6%			**8%**		
MEETINGS												
Result	X											
Meetings				SAM/IG/23 meeting/workshop				06/05/19	10/05/19	100%		
				- Training	25,050	50,616						
				- Translation	1,000	0						
				- Miscellaneous	750	965						
				Sub-total	**26,800**	**51,581**	192%					
				SAM/IG/24 meeting/workshop				11/11/19	15/11/19	0%		
				- Training	45,000	0						
				- Miscellaneous	750	0						
				Sub-total	**45,750**	**0**	0%					
				Workshop on Identification and implementation of performance indicators of air navigation systems in the SAM Region				22/07/19	26/07/19	0%		
				- Missions	5,696	0						
				Sub-total	**5,696**	**0**	0%					
				TOTAL MEETINGS	**78,246**	**51,581**	66%			**33%**		
				TOTAL IMMEDIATE OBJECTIVES	**219,669**	**12,507**	6%			**8%**		

MONITORING AND CONTROL OF THE PROJECT
2019 WORK PLAN

Proyecto Nº: RLA/06/901
Titulo del proyecto: Assistance in the implementation of a ATM regional system according to the ATM operational concept and the corresponding technological support for communications, navigation, and surveillance (CNS)

Objectives and Results of the Project	ICAO Objectives	Description of Activities and Corresponding Inputs	Amount Budgeted in the Year USD	Amount Executed in the Year USD	Budget % Compliance	Scheduled Starting Date	Scheduled Completion Date	Activitiy % Compliance To Date	Implementation Dates	Remarks and Inconvenients Encountered
		ADMINISTRATIVE SUPPORT	**44,000**	**44,000**						
		EQUIPMENT AND SUPPLIES	**7,000**	**7,000**						
		RAIM SERVICE	**75,200**	**75,200**						
		ADMINISTRATIVE EXPENSES	**42,412**	**45,936**						
		GRAND TOTAL	**466,526**	**236,224**	51%			**21%**		