

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP  
(GREPECAS)**

**FOURTH MEETING OF THE AERONAUTICAL METEOROLOGY SUBGROUP  
(AERMETS/4)**

(Mexico City, 22 to 26 May 2000)

**Item 4: Review of the exchange of OPMET information**

(Presented by the Secretariat)

**Summary**

This working paper contains a summary of the results obtained in the OPMET information exchange control performed in twelve (12) States of the SAM Region participating in this control, in accordance with the established at previous COM/MET Implementation Meetings and at the GREPECAS/7 Meeting. Likewise, preliminary results of the COM/MET SIP are included in this paper.

**REFERENCES:**

- GREPECAS/6 Report (Mexico City, October 1996), GREPECAS/7 Report (Lima, October 1997) and GREPECAS/8 Report (Dominican Republic, November 1998)
- CAR/SAM ANP (Vol I Basic ANP y Vol II FASID)
- COM/MET SIP reports of several SAM States
- Results of the Brasilia OPMET international data bank control, corresponding to the period 9 to 16 June 1999.

**5. Introduction**

1.1 AERMETS Subgroup previous meetings and the corresponding GREPECAS meetings have analyzed the results obtained from the OPMET information exchange controls performed by twelve (12) States of the SAM Region since 1996, in compliance with the established on this subject at previous implementation meetings and with Conclusion 7/37 of the GREPECAS/7 Meeting. Based on the results obtained from the referred controls, it was agreed at GREPECAS/8 Meeting that differences continue arising between OPMET information that should be disseminated in accordance with FASID MET 2 and FASID MET 2 A Tables requirements and the corresponding information received at MET Offices.

1.2 In this sense, the Meeting formulated Conclusion 8/25 - COM/MET Special Implementation Project for the CAR/SAM Regions, addressed, in its first phase, to the SAM Region, aimed at promoting and ensuring the regularity of OPMET information in this Region.

2. **Preliminary results of the COM/MET Special Implementation Project for the CAR/SAM Regions, First Phase, from the MET point of view.**

2.1 **SIP COM/MET objective and current status**

2.1.1 Based on GREPECAS Conclusion 8/25, ICAO Council approved the mentioned Project, which started its activities in November 1999. As of this date, the first phase of the Project has been carried out in 10 SAM States through short visits held by a MET and a CNS experts, represented by the CNS and MET Regional Officers of the ICAO SAM Office. The Project is totally financed by the Organization and has been included within ICAO mechanisms aimed at strengthening air navigation regional plans; its finalization is foreseen for June 2000. The objectives of the project are:

- a) to strengthen the coordination among MET dependencies and other operational dependencies in the SAM States;
- b) to assist States in the identification of difficulties related to OPMET information exchange; and
- c) to develop suitable recommendations regarding identified problems, aimed at achieving that OPMET information and its exchange be reliable and efficient, as well as available, in accordance with the requirements of FASID MET 2 and FASID MET 2 A tables.

2.2 **OPMET information exchange controls in the SAM States**

2.2.1 Based on the analysis made by ICAO SAM Office on the last four years results of OPMET information exchange controls carried out by most of the SAM States (12), which analysis corresponding to 1998 and 1999 is included as **Appendix A**, the Project discussed with CNS and MET officers of each of the States visited, the OPMET information sent and received by the States participating in the control. It is important to emphasize that results in Appendix A include only regular exchange OPMET messages with transit times shorter than 5 minutes.

2.2.2 The Project analyzed the forms used for the OPMET exchange control and agreed that the same should be reviewed in order that they:

- reflect the operation hours of stations not working 24 hours a day;
- include only transit times recommended in Annex 3;
- include AFTN address to which OPMET information should be sent;
- include transmitted OPMET information;
- include OPMET information received through the ISCS1;
- consolidate the OPMET exchange control in a unique form, in order to facilitate its exchange among the States of the Region and ICAO Regional Office.

2.2.3 In this context, the Project elaborated a draft format, included as **Appendix B**, to be presented at the Meeting. Furthermore, the Project deemed convenient to continue with OPMET exchange controls for a 2-year additional period. Based on the above, the following draft conclusion was suggested to the Meeting:

**DRAFT CONCLUSION 4/ OPMET information exchange control forms**

That,

- a) the States of the CAR/SAM Regions carry out the OPMET information exchange control up to year 2002, in accordance with the exchange requirements of FASID MET 2 and FASID MET 2A tables; and
- b) forms included in Appendix \_\_\_ to this report be used to carry out the referred controls in accordance to periods and criteria in force.

2.2.4 Likewise, the project verified that some States include within the OPMET exchange control, OPMET messages corresponding to non-regular exchange and that amendments made to FASID MET2 and FASID MET 2A tables are not reflected in the OPMET exchange controls, which difficult the analysis of the same.

**2.3 Abbreviated OMM heading - TTAii CCC YYGGgg**

2.3.1 The project verified that a considerable number of OPMET messages received at the Brasilia international OPMET data bank are rejected due to errors in the coding of the OMM abbreviated heading. Likewise, it was verified that for most States visited it is not clear enough the utilization of such heading, particularly regarding "ii" characters.

2.3.2 Based on the above, the Project considered convenient to study the possibility of standardizing the numbers to be used in the "ii" characters in the CAR/SAM States, for such reports which utilization it is not clear enough; therefore, it was deemed convenient to address this matter to the AERMETSG, aimed at achieving that the States, together with the States provider of international OPMET information services propose, should it be the case, fixed numbers to be used for the referred characters.

**2.4 OPMET information exchange requirements based on FASID MET 2 and FASID MET 2A Tables**

2.4.1 Based on the controls carried out by the Brasilia international OPMET data bank, it was verified that most of the visited States send OPMET information to other States, particularly to the Brasilia bank, without taking into account the FASID MET 2 and FASID MET 2A requirements; thus, from a large number of airport MET stations not appearing in the CAR/SAM ANP, FASID Table AOP 1.

2.4.2 The meeting could note the inconveniences arisen from this situation, with regard to corrections being manually made by the Brasilia bank to reports arriving with errors and the increase of the workload due to the need to correct a large number of reports originated at stations that are not required by the CAR/SAM ANP.

2.4.3 Likewise, it was verified that, at several States, OPMET information is being disseminated without considering the provisions of the CAR/SAM ANP Basic, with regard to dissemination of non-regular exchange OPMET messages, in the sense that States are sending non-regular METAR and TAF to States, instead of performing this exchange only through the Brasilia international OPMET data bank.

## 2.5 **International Satellite Communications System - ISCS1**

2.5.1 The Project was informed that, occasionally, OPMET messages transmitted by some States through the ISCS1 arrive with errors or slightly modified in comparison to messages originally sent and that some OPMET messages from other States are received several times, but that, on some opportunities, messages having the same time and station are different. Likewise, it was informed that occasionally information transmitted by the ISCS1 gets lost or does not arrive, which was verified by the Project through tests made with Guyana and French Guiana, since both States count with two-way VSATs.

2.5.2 In this sense, the Project formulated a Recommendation(French Guiana 09) in order that the AERMETS/4 analyze, together with the CAR/SAM States and the ISCS provider State, the OPMET information received and transmitted through this system, aimed at the identification of difficulties and proposal of improvement measures.

2.5.3 Depending on discussions on this subject, the meeting could consider convenient to formulate a conclusion aimed at starting the second phase of the COM/MET SIP, addressed to the CAR Region, where most States count with a two-way VSAT.

## 2.6 **Status of implementation of GREPECAS Conclusions**

2.6.1 Another inconvenience identified by the Project refers to the lack of implementation of GREPECAS Conclusion 6/33, which was formulated in order to improve OPMET information exchange (see AERMETS/4-IP/02).

## 2.7 **National procedures for OPMET information quality control**

2.7.1 Based on the control performed twice a year by the Brasilia OPMET international data bank, it was noted that States of several ICAO Regions are still making errors in the OPMET messages coding.

## 2.8 **General recommendation from the COM/MET SIP**

2.8.1 Aimed at improving OPMET information exchange, the Project suggests a general recommendation, which is formulated as the following draft conclusion:

**DRAFT CONCLUSION 4/ OPMET information exchange in the CAR/SAM States**

That, with the purpose of improving OPMET information exchange, Administrations of the CAR/SAM States make their best efforts in order to:

- a) create coordination committees among AIS/ATM/CNS/MET dependencies, addressed to the establishment of operational procedures related to the collection and exchange of OPMET information; and
- b) establish mechanisms for quality control of the OPMET exchange messages.

2.8.2 Likewise, it is important to emphasize that the Project verified that, at several States where GREPECAS Conclusion 6/33 has not been implemented, CNS dependencies are not informed on amendments made to FASID MET 2 and FASID MET 2A Tables, which causes that OPMET data transmission is not made in accordance with the referred tables.

2.8.3 In this sense and for the meeting information, **Appendix C** provides a sample form used by a State visited during the COM/MET SIP to inform CNS dependencies on OPMET information that should be transmitted internationally at the referred State, based on requirements of FASID MET 2 and FASID MET 2A tables.

**3 Forms to propose amendments to FASID MET 2 and FASID MET 2A Tables**

3.1 Considering that RAN CAR/SAM/3 Recommendations 8/1 and 8/2 (October 1999) modified the forms and contents of Tables MET 2 and MET 2A, respectively, the meeting could agree to use suitable forms to propose amendments to the referred tables. In this sense, **Appendix D** includes draft forms to propose such amendments. In this context, the following draft conclusion is proposed:

**DRAFT CONCLUSIÓN 4/ Forms to propose amendments to FASID MET 2 and FASID MET 2A Tables**

That, with the purpose of proposing amendments to FASID MET 2 and FASID MET 2A Tables, CAR/SAM States use the forms included in Appendix \_\_ to this report.

**3. Proposed action**

3.1 The meeting is invited to:

- a) Consider the information contained in this working paper; and
- b) Adopt the pertinent actions.

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STATE/ESTADO		1998							1998							1999							1999												
		10-16 Jun							10-16 Nov							10-16 Jun							10-16 Nov												
		SA%	FT%	SP	WS	WC	WV	A	SA%	FT%	SP	WS	WC	WV	A	H%	F%	S	WS	WC	WV	A	H%	F%	S	WS	WC	WV	A						
COLOMBIA																																			
SKZZMAMX																																			
MPTO	PANAMA/TOCUMEN	F - S	70	0						67	25											0	50						0	68					
SACO	CORDOBA	T		36						0	79											0	79						0	36					
SAEZ	BUENOS AIRES/EZEIZA	T		25						0	82											0	71						0	68					
AVERAGE/PROMEDIO				31						0	81											0	75						0	52					
SBBE	BELEM	T		54						0	68											0	89						0	57					
SBBR	BRASILIA	T - S		57						0	75											0	89						0	64					
SBEG	MANAUS	T - S		0						0	75											0	82						0	68					
SBGL	RIO DE JANEIRO	T		57						0	75											0	86						0	71					
SBGR	SAO PAULO	T		68						0	71											0	89						0	68					
SBKP	CAMPINAS	T		32						0	61											0	79						0	61					
SBPA	PORTO ALEGRE	T		57						0	75											0	82						0	64					
SBSN	SANTAREM	T		54						0	71											0	89						0	64					
AVERAGE/PROMEDIO				47						0	71											0	86						0	65					
SCEL	SANTIAGO	T		75	11				1	85	68											0	75						0	79					
SCFA	ANTOFAGASTA	S																																	
AVERAGE/PROMEDIO				75						85	68											0	75						0	79					
SEGU	GUAYAQUIL	F - S	77	68	5					77	75											86						0	86		7				
SEQU	QUITO	F	79	68	100					76	75											86						0	86						
AVERAGE/PROMEDIO			78	68						77	75											86						0	86						
SLLP	LA PAZ	F - S	68	79						77	79											0	89						0	79					
SLVR	SANTA CRUZ	F	68	79						76	79											0	89						0	75					
AVERAGE/PROMEDIO			68	79						77	79											0	89						0	77					
SPIM	LIMA-CALLAO	F - S	82	82						86	79											0	89						0	100		1			
SPQT	IQUITOS	F	82	82						86	79											0	89						0	100					
SPSO	PISCO	F	82	82						86	79											0	89						0	100					
AVERAGE/PROMEDIO			82	82						86	79											0	89						0	100					
SVMC	MARACAIBO	F	5	54						0	86											0	89						0	89					
SVMG	MARGARITA	F	29	54						0	86											0	89						0	89					
SVMI	CARACAS	F - S	51	54						67	86											0	89						0	89					
AVERAGE/PROMEDIO			28	54						22	86											0	89						0	89					

F = METAR/SPECI + TAF - Regular

T = TAF - Regular

S = AIREP(A), SIGMET(WS) y SIGMET(WC-WV) relacionados con nubes de ceniza volcánica y ciclones tropicales/AIREP(A), SIGMET(WS) and SIGMET(WC-WV) related with volcanic ash clouds and tropical cyclones.

Nota: CAMPO GRANDE (SBCG) salió del ANP CAR/SAM (Propuesta de enmienda Serie No. SAM 95/4-AOP/COM/MET aprobada el 28 de abril 1996)

TALARA (SPYL) salió del ANP CAR/SAM (Propuesta de enmienda Serie No. SAM 95/4-AOP/COM/MET aprobada el 28 de abril 1996)

Note: CAMPO GRANDE (SBCG) was excluded from the CAR/SAM ANP (Proposal for amendment Serial No. SAM 95/4-AOP/COM/MET approved 28 April 1996)

TALARA (SPYL) was excluded from the CAR/SAM ANP (Proposal for amendment Serial No. SAM 95/4-AOP/COM/MET approved 28 April 1996)





















## Appendix C

## TRANSMISSION OF OPERATIONAL METEOROLOGICAL INFORMATION

Office:

State:

State	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Panama	Paraguay	Peru	Uruguay	Venezuela	U.S.A.
AFTN Address	SAEZYMYX	SBBRYZYX	SCZZMAMX	SKZZMAMX	SEZZMAMX	MMMXYMYX	MPZZMAMX	SGZZMAMX	SPZZMAMX	SUZZMAMX	SVZZMAMX	KWBCYZYX
SLLP	M/S/T/Si/A	M/S/T/Si/A	M/S/T/Si/A	M/S/T/Si/A	T/	T/	T/Si/A	M/S/T/Si/A	M/S/T/Si/A	M/S/T	T/Si/A	M/S/T/Si/A
SLVR	M/S/T	M/S/T	M/S/T	M/S/T			T	M/S/T	M/S/T	T	T	M/S/T
SLCB	M/S/T	T/M/S					T	M/S/T	M/S/T		T	M/S/T
SLTR		T						T				M/S/T
References:	SA=METAR		SA=SABO									
	SP=SPECI		SP=SPBO									
	FT=TAF		FT=FTBO									
	WS=SIGMET		WS=WSBO									
	WC=SIGMET		SIGMET on tropical cyclone									
	WV=SIGMET		WV=WVBO (SIGMET on volcanic ash)									
A=AIREP		UA=AUBO										
FABO	SAEZYMYX	SBBRZXCPC	SCELYMYX	SKBOYMYX	SEQUYMYX	MMMXYMYX	MPTOYMYX	SGASYMYX	SPIMYMYX	SUMUYMYX	SVMIYMYX	KWBCYMYX

In accordance with tables FASID MET2 and FASID MET2A, of the Air Navigation Regional Plan (RAN CAR/SAM/3, October 1999)

Note: Sample of OPMET information sent by Bolivia in accordance with tables FASID MET 2 and FASID MET 2A

**FORM A**

**Proposal for Amendment to FASID Tables MET 2 and MET 2A**

**Table FASID MET \_\_\_\_\_**

**Serial No. OPMET SAM \_\_\_\_\_**

1. **Originated by:** \_\_\_\_\_

2. **New exchange proposed to introduce:**

a) To be available at: \_\_\_\_\_

b) From or related with: \_\_\_\_\_

\_\_\_\_\_

c) Information required:

Table FASID MET 2						Table FASID MET2A		
F	S	T	f	s	t	S	s	s'

3. **Originator's reasons:** \_\_\_\_\_

\_\_\_\_\_

4. **Provider State:** \_\_\_\_\_

a) **The proposal is acceptable:**

**Applicable as from:**

Yes \_\_\_ No \_\_\_

\_\_\_\_\_

(date)

\_\_\_\_\_  
(date and signature)

b) **Comments if not found acceptable:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**FORM B**

**Proposal for Amendment to Tables FASID MET 2 and FASID MET 2A**

**Table FASID MET \_\_\_\_\_**

**Serial No. OPMET SAM \_\_\_\_\_**

1. **Originated by:** \_\_\_\_\_

2. **Exchange proposed to delete:**

a) To be available at: \_\_\_\_\_

b) From or related with: \_\_\_\_\_

c) Information:

Table FASID MET 2						Table FASID MET2A		
F	S	T	f	s	t	S	s	s'

3. **Originator's reasons:** \_\_\_\_\_

\_\_\_\_\_

4. **Provider State:** \_\_\_\_\_

a) **The proposal is acceptable:**

**Applicable as from:**

Yes \_\_\_ No \_\_\_

\_\_\_\_\_  
(date)

\_\_\_\_\_  
(date and signature)

b) **Comments if not found acceptable:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_