INTERNATIONAL CIVIL AVIATION ORGANIZATION

Informal CAR/SAM AIS/ATM/CNS 02/00 Meeting

(Cayenne, 27-29 March, 2001)

Item 2: f) Statistical information on aircraft movement in the area

(presented by the Secretariat)

Summary

This paper proposes that data be collected about aircraft movement in the Subregion concerned (Belem, Georgetown, Maiquetía, Manaus, Paramaribo, Piarco, and Rochambeau FIRs) so that sufficient data are available to enable the States involved to carry out ATM planning and evolution in the Subregion as required.

References:

- Report of the Technical Meeting of Heads of ACCs of the South Atlantic (Recife, 18-21 March, 1997);
- Report of the ATS/SG/7 Meeting (Lima, Peru, 7-11 June, 1997);
- Report of the Bolivia-Brazil Bilateral Meeting (Corumbá, Brazil, 28 July -1 August, 1997).

1. Introduction

1.1 It is a well-known fact that ATS planning is a complicated process in which many factors that do not refer to or have anything to do with ATC must be kept in mind. The collection of complete and reliable statistical data is essential for ATM planning.

1.2 These data may be used to define the short-, medium-, and long-term planning policy in the airspace involved. Air traffic data should be as complete as possible. En route traffic data should include at least volume, composition, daily/hourly distribution, distribution by flight levels, occupation of preferred flight levels, and any other information that is deemed relevant.

2. Analysis

2.1 Despite these facts, it has been noted that not all of the CAR and SAM States have sufficiently complete data on the air traffic of interest, and even less an analysis showing the growth trend of such traffic that will facilitate the planning of ATS infrastructure.

2.2 The need for such data became evident during the studies conducted by the ATS/SG when addressing the task related to ATM evolution as part of the implementation of CNS/ATM systems. These studies revealed the difficulties in defining significant air traffic flow scenarios due to inadequate data on the subject. As a result, the ATS/SG at its seventh meeting (ATS/SG/7) requested the GREPECAS Air Traffic Forecasting Task Force to study the possibility of making a statistical evaluation in the CAR/SAM Regions. Since 2000, ICAO Headquarters in Montreal has been responsible for the operation of this task force and the results of its efforts are expected to help States collect air traffic data and apply them to ATS planning.

2.3 It should also be recognized that the situation described above makes it extremely difficult to identify routes or route segments where some traffic congestion may already exist at preferred flight levels. In this sense, it should be noted that, unless specific and reliable data are available on traffic volume, it will be difficult to take steps to increase airspace capacity, including a reduction of longitudinal separation minima between flights crossing the boundaries of the FIRs involved.

2.4 Exercises have been carried out for this purpose at different fora (Technical Meeting of Heads of ACCs of the South Atlantic, held in Recife on 18-21 March, 1997 and the Bolivia-Brazil Bilateral Meeting held in Corumbá, Brazil on 28 July-1 August, 1997, etc.) which have underscored the importance of statistical data for airspace planning. The information available made it possible to identify important ATS route segments where traffic congestion already existed, posing serious problems for users and creating operational difficulties for the ATS units (ACCs) involved. In this respect, the aforementioned fora have recommended measures for the collection of data through appropriate forms and their subsequent analysis.

2.5 In order to ensure timely application of data collection procedures in the FIRs involved, the meeting should review the forms shown in the **Appendix** to this working paper, which would serve for recording traffic data in the airspaces in question and for their subsequent analysis.

2.6 If the meeting deems it advisable, it should adopt the forms for recording data about air traffic on the ATS routes chosen to that end. Likewise, the meeting might consider that data should be collected on specific routes every three months and for a whole week (Monday through Sunday), starting on the first Monday of the month in question.

3. Conclusions

3.1 It should be recognized that the collection of complete and reliable data is absolutely necessary for ATM planning, since that information can be used to determine the short-, medium-, and long-term planning policy for the airspace in question.

3.2 On the other hand, not all CAR/SAM States have sufficiently complete data on the air traffic of interest, and, even less, an analysis showing the growth trend of such traffic to facilitate the planning of ATS infrastructure.

3.3 Exercises in this sense have been carried out in other regional spheres, making it possible to identify important ATS route segments where traffic congestion already exists, posing serious problems for users and creating operational difficulties for the ATS units (ACCs) involved.

3.4 In view of the foregoing, it is felt advisable for the delegates at this meeting to agree to an evaluation of air traffic on designated ATS routes.

4. **Suggested action**

4.1 The meeting is invited to take note of the information provided in this working paper and, if it deems it advisable, to adopt the following draft Conclusion:

Draft Conclusion XXX: Statistical data on air traffic in ATS routes

That:

a) Brazil, Guyana, French Guiana, Suriname, Trinidad and Tobago, and Venezuela collect statistical data on the air traffic in selected ATS routes that cross the common boundaries of the FIRs involved, in order to identify the route segments with an unsatisfied demand for preferred flight levels;

b) the air traffic data be collected in the forms shown in **Appendix XX** to this part of the Summary (Tables 1, 2, 3, and 4), considering that:

1. the data will cover a whole week, starting on the first Monday of each quarter;

2. the first collection of data will take place from XXXXXXXXXX to XXXXXXX; and

c) the data already processed be sent to the SAM Regional Office no later than the 20th day of the month in question. The Regional Office will prepare a summary of said information to be sent to the Administrations involved, within thirty days after receiving it.

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Attachments:

Forms for recording data on traffic in the airspaces involved, and their subsequent analysis:

- **Table 1**
  Table 2
  Table 3
  Table 4

TABLE 1
Statistics on air traffic between the .....and .....FIRs
Air traffic distribution in the....., ..., and ..... ATS routes, by day/time
FIR: _____ ROUTE: _____ WEEK:_____

Day	1		2		3		4		5		6		7		
RP	Reporting Point														
UTC Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	Total No. of Flights
00-01															
01-02															
02-03															
03-04															
04-05															
05-06															
06-07															
07-08															
08-09															
09-10															
10-11															
11-12															
12-13															
13-14															
14-15															
15-16															
16-17															
17-18															
18-19															
19-20															
20-21															
21-22															
22-23															
23-24															
TOTAL															

Day: 1 MON, 2 TUE, 3 WED, 4 THU, 5 FRI, 6 SAT, 7 SUN
SB = Southbound NB = Northbound
RP = Reporting point (Reporting point chosen to record the traffic count)

TABLE 2

Statistics on air traffic between the .....and .....FIRs
Air traffic distribution in the....., ..., and ..... ATS routes
FIR: _____ WEEK:_____

AWY									
RP	Reporting Point								Total No. of Flights
UTC Time	NB	SB	NB	SB	NB	SB	NB	SB	
01-02									
02-03									
03-04									
04-05									
05-06									
06-07									
07-08									
08-09									
09-10									
10-11									
11-12									
12-13									
13-14									
14-15									
15-16									
16-17									
17-18									
18-19									
19-20									
20-21									
21-22									
22-23									
23-24									
TOTAL									

SB =Southbound NB = Northbound
RP = Reporting point (Reporting point chosen to record the traffic count)

TABLE 3

Statistics on air traffic between the .....and .....FIRs
Air traffic distribution in the....., ..., and ..... ATS routes,
by flight level

FIR: _____ **WEEK:**_____

Route **FL**					**TOTAL**	**Remarks**
FL						
200						
210						
220						
230						
240						
250						
260						
270						
280						
290						
310						
330						
350						
370						
390						
410						
430						
450						
Total						

TABLE 4

Statistics on air traffic between the ..... and .....FIRs
Information on air traffic in the ....., ..., ... ATS routes forced to fly non-preferred FLs for lack of a 15-min. separation

FIR: _____ WEEK:

ATS Route								
Day	**Total no. of Flights**	**CLFL_RQFL Flights**	**Total no. of Flights**	**CLFL_RQFL Flights**	**Total no. of Flights**	**CLFL_RQFL Flights**	**Total No. of Flights**	**CLFL_RQFL Flights**
1								
2								
3								
4								
5								
6								
7								
TOTAL								
PERCENTAGE (%)								

Notes:

(1) Day: 1 MON, 2 TUE, 3 WED, 4 THU, 5 FRI, 6 SAT, 7 SUN
(2) The total no. of flights is the total stated in **Table 1**.
(3) CLFL RQFL: corresponds to aircraft flying non-preferred levels.