International Civil Aviation Organization
UNDP/ICAO Regional Project RLA/98/003
Transition to CNS/ATM Systems in the CAR and SAM Regions

Tenth Meeting/Workshop of ATM Authorities and Planners in the CAR/SAM Regions (AP/ATM/10)

(Lima, Perú, from 10 to 14 May 2005)

Agenda Item 3: Review of RVSM issues in the CAR/SAM Regions

RVSM Implementation in Chile

(Presented by Chile)

Summary

This working paper informs on the status of RVSM implementation in Chilean Flight Information Regions (FIR).

1. Introduction

1.1 On 20 January 2005 began implementation of RVSM in Flight Information regions of the CAR/SAM Regions, after the States/ International Organizations completed satisfactorily the Implementation Program developed in conjunction with the International Air Transport Association (IATA) and ICAO NACC and SAM Regional Offices.

1.2 During the first month of application of the RVSM in Chilean FIRs, Santiago ACC performed an evaluation of RVSM operations conducted, selecting one day of each week and considering the following aspects:

- Flight Plan Completion
- Phraseologies
- Number of RVSM approved/ Non –Approved aircraft
- Occupation of flight levels.
- Large height deviations. (LHD)
- Compliance with Agreement Letters with adjacent international ACCs and FIRs

2. Discussion

2.1 Operational Aspects.

2.1.1 With regard to the information related to flight plan completion, the main remarks refers to the duality of information concerning the certification status indicated in this document, by some international non-scheduled operators who file two or more flight plans for the same flight indicating a different certification status.

2.1.2 Considering that, in general, there is no information exchange between the Administrations for verifying the certification status of aircraft using the RVSM air space and this information relies on information provided by the operator on the flight plan, it is essential to establish mechanisms that make it possible to know in advance and opportunely the RVSM approval status of these flights. This dual information produces confusion and uncertainty since when the ATC requests confirmation to the pilot, he usually answers that it is RVSM approved.

2.1.3 Among the measures taken to solve this situation it is proposed to activate the regional data base according to the information provided by each State to CARSAMMA. As an additional supplementary measure, considering that many States require previous notice of operation or overflight or arrival authorization it is proposed to require specification of the RVSM approval status in this application for operation.

2.1.4 The infrequent or almost inexistent use of required phraseologies by the pilots of non RVSM approved aircraft is something that must be improved.

2.1.5 The evaluation of the number of non RVSM approved domestic operations conducted, about an 80%, reflects that accommodation of national aircraft in domestic flights has been accomplished with no remarks and this flexibility in the use of RVSM air space has made it possible for these operators to also obtain benefits from RVSM. This percentage of operations of non RVSM approved domestic flights is within anticipated estimate, a situation which is used both in simulation and training of ATC personnel. Enclosed is a summary of RVSM operations evaluated.

2.1.6 International operations of scheduled carriers conducting long range flights show a figure of about 95% of RVSM approved aircraft. In this regard, Chile has fully complied with provisions established by regional agreements and in the appropriate Letters of Agreement concerning the treatment of international flights, authorizing entry to RVSM air space only to approved aircraft and flights conducted by State aircraft, ferry flight, maintenance or humanitarian reasons, exceptions which are internationally accepted.

2.1.7 Non RVSM approved aircraft are handed over with flight levels available below FL290 or above FL410. ATCs have received specific instructions not to initiate coordinations, even though they are requested by pilots, for the adjacent ACC accept accommodation of these flights. However, authorization by some ACC to international non RVSM approved flights to use air space declared RVSM until before established hand over points, require pilot to continue with this accommodation, becoming an additional pressure and work load for ATCs.

2.1.8 During handover of responsibilities and communications in RVSM air space, by mutual agreement and convenience, flight approval status is specified, considering provisions regarding flight plan completion or absence of this. There are no inconveniences in the acceptance of exempted international non RVSM approved flights.

2.1.9 Although no deviations greater than 300 feet were observed, some aircraft entered a level other than the one authorized, a situation which was reported to CARSAMMA.

3. Suggested Action

3.1 The meeting is invited to note the information contained in this Working Paper and attachments.

3.2 Civil Aviation Administrations are urged to maximize the exchange of information to verify the certification status of aircraft using RVSM air space, which will allow knowing in advance and timely the RVSM approval status of flights.

3.3 The meeting is invited to discuss data presented in Attachments A and B and the States are urged to collect statistical data in order to evaluate implementation and inform by means of the CAR/SAM ICAO Regional Office to appropriate organizations.

3.4 The States are urged to comply fully with international agreements regarding the use of RVSM air space, reporting any anomaly to Lima Regional office.

APPENDIX A

SUMMARY TABLE OF DOMESTIC RVSM OPERATIONS EVALUATED

TOTAL DOMESTIC RVSM OPERATIONS EVALUATED: 461	
RVSM APPROVED AIRCRAFT	NON APPROVED
20,59%	**79,41%**

FLIGHT LEVELS OCCUPATION		
FLIGHT LEVEL	TOTAL	PERCENTAGE
270	18	3,90
280	27	5,86
290	43	9,33
300	**61**	**13,23**
310	21	4,56
320	56	12,15
330	**95**	**20,61**
340	39	8,46
350	11	2,39
360	33	7,16
370	26	5,64
380	14	3,04
390	16	3,47
400		
410		
	461 OPS	100%

TOTAL OPERATIONS PER CARRIER						
IDENT.	TOTAL	%	APPROVED	%	NON APPROVED	%
LXP	298	64,64	75	16,25	223	48,37
LAN	51	11,06	20	4,34	31	6,74
SKU	96	20,83	00		96	20,83
DLU	16	3,47	00		16	3,47
	461	100%	95	20,59%	366	79,41

AIRCRAFT TYPES PER CARRIER								
IDENT	B732	%	A319	%	A320	%	B763	%
LXP	223	48,37	44	9,54	23	4,99	8	1,74
LAN	31	6,74	12	2,60	8	1,74	0	
SKU	96	20,83						
DLU	16	3,47						
	366	79,41	56	12,15	31	6,73	8	1,74

TOTAL SUMMARY AIRCRAFT TYPES						
TYPE	TOTAL OPERATIONES	%	NON APPROVED		APPROVED	
B732	366	79,41	366	100%		
A319	56	12,15			56	100%
A320	31	6,72			31	100%
B763	8	1,74			8	100%
	461		366	**79,41**	95	**20,59**

APPENDIX B

INTERNATIONAL RVSM OPERATION COMPARATIVE TABLE

No	Identification	Type	Origin	Destination	19-Jan-05	21-Jan-05
1	ACA092	B763	CYYZ	SCEL	330	350
2	DAL147	B763	KATL	SCEL	370	350
3	AAL945	B763	KDFW	SCEL	370	390
4	LAN503	B763	KMIA	SCEL	370	370
5	AAL957	B763	KMIA	SCEL	370	350
6	CMP437	B737	MPTO	SCEL	370	370
7	MXA1692	B763	SAEZ	MMMX	310/350	340/360
8	TPU020	A319	SAEZ	SPIM	350	340/360
9	LPE426	B763	SAEZ	SPIM	350	340/360
10	LRC624	A320	SAEZ	SPIM	310	320
11	LPE514	B763	SAEZ	SPIM	350	340
12	ARG1364	MD88	SAEZ	SPIM	310/350	340
13	ACA093	B763	SCEL	CYYZ	280/310	300
14	DAL146	B763	SCEL	KATL	260/280	300/320
15	AAL940	B763	SCEL	KDFW	280/310	320
16	LAN500	B763	SCEL	KMIA	310	300/320
17	LAN502	B763	SCEL	KMIA	310	320
18	AAL912	B763	SCEL	KMIA	280/310	320
19	LCO1102	B763	SCEL	KMIA	310	300
20	AMX011	B762	SCEL	MMMX	310/350	320/340
21	CMP438	B737	SCEL	MPTO	350	340
22	LPE632	B763	SCEL	SPIM	350	340
23	LAN600	B763	SCEL	SPIM	350	340
24	TPU024	A320	SCEL	SPIM	350	340
25	LAN554	A320	SEGU	SCEL	370	370
26	LPE515	B763	SPIM	SAEZ	370	370
27	ARG1365	MD80	SPIM	SAEZ	290/330	310/330
28	TPU021	A319	SPIM	SAEZ	370	350
29	LRC625	A320	SPIM	SAEZ	330	330
30	LPE633	B763	SPIM	SCEL	370	370
31	LAN601	B763	SPIM	SCEL	370	370
32	TPU025	A320	SPIM	SCEL	370	370
33	LPE609	B763	SPIM	SCEL	370	370
34	LAN531	B763	SPIM	SCEL	370	370