International Civil Aviation Organization SAM/IG/7-IP/15
South American Regional Office 11/05/11
Seventh Workshop/Meeting of the SAM Implementation Group (SAM/IG/7) - Regional Project RLA/06/901
Lima, Peru, 23 to 27 May 2011

Agenda Item 5: Air Traffic Flow Management Implementation (ATFM) in the SAM Region

ATC CAPACITY AND RUNWAY CAPACITY

(Presented by Brazil)

This Information Paper presents the conclusions about ATC Capacity and the Runway Capacity of the main airports.

1. Introduction

1.1 The runway capacity saturation for arrivals and departures have is a big problem for domestic and international airports. In order to maintain the air traffic flow near the optimal conditions, avoiding possible overflow in the system, the Brazilian Air Navigation Management Center (CGNA) applies standard procedures for runway capacity calculations and ATC sectors. These procedures help to cope with the variation in the demand/capacity at the airports, giving parameters which support recommendations to the airports of interest in advance and to keep the overall operation in harmony.

1.2 In accordance to the demand evaluation in the airports and in the air space, the capacity calculation should take into account some parameters that could interfere in airport operation and air space operation.

1.3 A lot of factors can influence the Capacity, for example: sector limit, routs disposed and runway configuration. When some of factors suffer a significantly modification, it will be calculated a new capacity. But, it's important that data collection is quite significant, for avoiding deviations and for representing reliable values for the ATC.

ATC Capacity and Runway Capacity values

2.1 Capacity values are used as tools for planning and decision making by the authorities responsible for the calculation of these numbers. Indeed, serve as a reference to maintain the balance between capacity and demand. The CGNA has calculated the ATC Capacity and the Runway Capacity in order to understand the relationship between these values, but also to seek an ideal air traffic flow management.

ATC CAPACITY (APP) AND RUNWAY CAPACITY

°	TMA	Aeroporto	Capacidade: Pista	Capacidade: Setor APP						
1	São Paulo	SBSP	34	APP SP	S1N	S1S	S2	S3N	S3S	FinalGR
2		SBGR	45		7	8	8	7	5	5
3		SBMT	32		FinalSP	Final KP	Tubo	S3N/S3S	S2/Final KP	
4		SBKP	26		5	5	10	7	8	
5	Rio de Janeiro	SBRJ	29	APP RJ	S1	S2	S3	S1/S4	S2/S3	S5	S1/2/3/4/5
6		SBGL	40		9	5	7	7	7	10	10
7	Brasília	SBBR	45	APP BR	S1	S2	S1/S2	S1/S2/Final		Final	
					6	11	11	13		7	
8	Belo Horizonte	SBCF	27	APP BH	S1	S2	S3	S2/S3		S1/S2/S3	
9		SBBH	25		6	7	7	7		9	
10	Salvador	SBSV	25	APP SV	S1/2						
					9						
11	Curitiba	SBCT	24	APP CT	S1-Final		S2/3/4-Alimentador		S1/2/3/4		
					4		6		8		
12	Porto Alegre	SBPA	25	APP PA	S3	S4	S2/4	S1/3			
					4	2	5	9			
					S1/2/3		S1/2/4	S1/2/3/4			
					9		9	9			
13	Manaus	SBEG	25	APP MN	S1						
					8						
14	Recife	SBRF	31	APP RF	S1						
					9						
15	Fortaleza	SBFZ	25	APP FZ	S1						
					7						
16	Natal	SBNT	27	APP NT	S1						
					7						

Capacidade: Setor ACC

ACC RECIFE

SETORES DESAGRUPADOS

RE1	RE2	RE3	RE4	RE5	RE6	RE7	RE8
14	15	14	15	14	15	15	16

SETORES AGRUPADOS

RE1/2	RE3/4	RE5/6	RE7/8	RE2/3/4		RE1/2/8	
15	15	15	17	15		17	
RE5/6/7		RE6/7/8		RE1/2/3/4		RE5/6/7/8	
15		15		15		15	
RE3/4/5		RE3/4/8					
15		17					

ACC AMAZÔNICO

SETORES DESAGRUPADOS

AZ1	AZ2	AZ3	AZ4	AZ5	AZ6	AZ7	AZ8
14	14	16	14	18	14	12	12
AZ9	AZ10	AZ11	AZ12	AZ13	AZ14		
14	14	14	14	11	14		

SETORES AGRUPADOS

AZ1/2	AZ1/2/3/4	AZ1/2/5	AZ3/4	AZ6/7/8/9/10
14	16	18	16	12

AZ2/3/4	AZ3/4/5	AZ6/7	AZ6/7/8	AZ6/8
13	18	14	14	14
AZ8/9/10	AZ9/10	AZ11/12	AZ13/14	
14	14	14	14	
AZ11/12/13/14	AZ7/9/10	AZ7/8/9/10	AZ1/2/3/4/5	
11	14	14	18	

ACC CURITIBA

SETORES DESAGRUPADOS

CW1	CW2	CW3	CW4	CW5	CW6	CW7	CW8
15	15	14	11	15	15	14	14
CW9	CW10						
14	14						

SETORES AGRUPADOS

CW1/5	CW6/7	CW4/8	CW9/10	CW2/3	CW4/5	CW5/6	CW7/8
15	15	14	14	15	15	15	14

CW1/2/5		CW6/7/8		CW5/6/7		CW4/5/8	
15		15		15		15	
CW5/6/7/8		CW4/6/7/8		CW1/2/3		CW4/7/8	
15		15		15		15	

ACC BRASÍLIA

SETORES DESAGRUPADOS

BS1	BS2	BS3	BS4	BS5	BS6	BS7	BS8
12	12	15	14	14	15	15	14
BS9	BS10	BS11	BS12				
14	14	13	14				

SETORES AGRUPADOS

BS1/2	BS3/4	BS1/4	BS2/3	BS1/2/3/4		BS5/6	BS5/9
12	15	15	14	15		15	14
BS6/7	BS7/8	BS8/9	BS7/8/9		BS5/7/8/9		
15	15	14	15		15		
BS10/11		BS10/12		BS10/11/12			
14		16		16			