International Civil Aviation Organization
South American Regional Office
RLA/06/901 - Tenth Workshop/Meeting on South American Region ATS routes network optimization (SAM ATSRO/10)
(Bogota, Colombia, 17 to 21 June 2019)

Agenda Item 2: Analysis of Version 5 of the SAM ATS route network and SAM-CAR inter-regional ATS routes

REPLACEMENT OF CONVENTIONAL ATS ROUTE UB 555 WITH AN RNAV ROUTE

(Presented by Uruguay)

SUMMARY	
This working paper presents the analysis carried out for replacing conventional ATS route UB 555 with an RNAV route in Uruguayan upper airspace, in accordance with plans based on the SAM PBN CONOPS for the period 2018-2020.	
References: • ATS/RO meeting reports • SAM/IG meeting reports • Report of the GREPECAS/18 meeting • SAM PBN CONOPS for the period 2018-2020	
ICAO strategic objectives:	*A - Safety* *D – Economic development of air transport* *E – Environmental protection*

1 Background

1.1 The CONOPS was used as a reference for airspace planning and route network optimisation, allowing for the establishment of harmonised PBN implementation goals in the SAM Region for the period 2018 - 2020.

1.2 The replacement of conventional ATS routes with RNAV routes in upper airspace has continued, expecting to achieve 100% migration by 2020. Consideration is being given to the possibility of declaring this PBN airspace as exclusionary by regional agreement.

2 Discussion

2.1 The draft new route network optimisation project, version 5, analysed route UB555. RNAV 5 operations are based on the use of RNAV equipment for automatic positioning of the aircraft on the horizontal plane, using information from one of the following types of position sensors or a combination thereof, and on media for establishing and maintaning the desired path:

a) VOR/DME;
b) DME/DME;
c) INS or IRS; and

d) GNSS

2.2 It was noted that only with VOR/DME - DME/DME sensors, both CRR and GUA had no limitations, due to the right coverage and geometry of ground radio aids and the adequate number of stations for providing the appropriate support infrastructure.

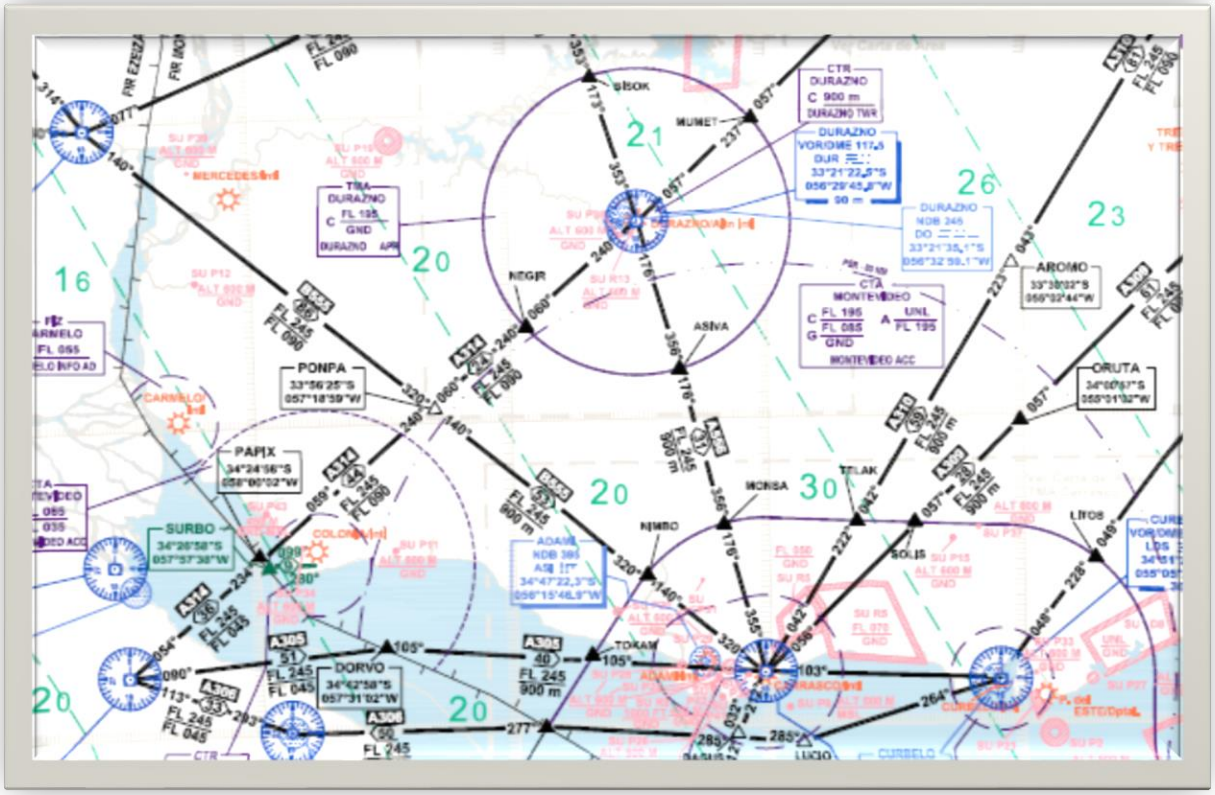

Figure 1

2.3 It was also noted that speech communications were direct between the pilot and the controller.

2.4 Finally, ATS surveillance can be used to mitigate the risk of gross navigation errors, since the route is within ATS surveillance and the volume of communication services and ATS resources is adequate for the task.

3 Suggested action

3.1 The Meeting is invited to:

a) review the information presented in this working paper regarding route UB555; and

b) consider and propose improvements based on the analysis provided.

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