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

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

(Lima, Perú, 10 to 14 May 2005)

Agenda Item 2: Evaluation of RNP 10 Pre-Operational Implementation in the Santiago de Chile-Lima segment of parallel routes UL 780 and UL 302

Feasibility analysis for application of 50 NM longitudinal separation minimum in the Santiago de Chile-Lima segment of routes UL 780 and UL 302

(Presented by Peru and Chile)

Summary

This Working Paper presents the analysis conclusions and feasibility evaluation in order to apply a 50 NM longitudinal separation minimum in the Santiago de Chile-Lima segment of routes UL780 and UL 302.

1. Introduction

1.1. As of 22 January 2004, the RNP 10 pre-operational implementation started in the Santiago de Chile-Lima segment of UL 780 and UL 302 routes. The evaluation regarding this pre-operational implementation is discussed by WP/6 presented at this Meeting.

1.2. In March 2004, the Third Meeting of the ATM/CNS subgroup of GREPECAS, agreed to start the studies with the aim of evaluating the feasibility to implement the 50 NM longitudinal separation minimum in the above mentioned segment of routes UL780 and UL302, and if it was possible, to present the results in the AP/ATM/8 Meeting.

1.3. Later, in July 2004, the AP/ATM/8 meeting through its **Conclusion AP/ATM/8/15**, considered convenient that Peru and Chile develop an action plan for the implementation of 50 NM longitudinal separation minimum in the referred routes.

2. Analysis

2.1 Considering the results obtained in the RNP 10 implementation in routes UL780 and UL302, and the regional implementation of the RVSM airspace, when analyzing the requirements for the 50 NM longitudinal separation minimum implementation, operational disadvantages have been identified as follows:

2.1.1 The application of 50 NM longitudinal separation minimum in the routes UL 302 and UL 780 (See graphics 1 and 2 in **Appendix A** of this Working Paper), for aircraft flying northbound from Santiago and Antofagasta FIR, would finish in ILMAR and MOXES intersections, 140 NM south of Lima.

2.1.2 Thus, Lima ACC would have to increase the longitudinal separation from 50 NM to 80 NM or apply the vertical separation before the aircraft cross these intersections northbound, with this the air traffic management would be more difficult and, eventually, it would affect the efficiency of operations in the routes mentioned. That is to say, that the 50 NM longitudinal separation mínimum in these routes would not facilitate the airspace management.

2.1.3 On the other hand, considering the regional implementation of the RVSM airspace as of January 2005 and the limited quantity of air traffic in the Santiago de Chile-Lima segment of routes UL302 (an average of 17 flights daily) and UL 780 (an average of 33 flights daily), it is deduced that there would be scarce opportunities in order to apply the 50 NM longitudinal separation minimum. Therefore, this implementation would not provide significant data to perform an airspace safety assessment.

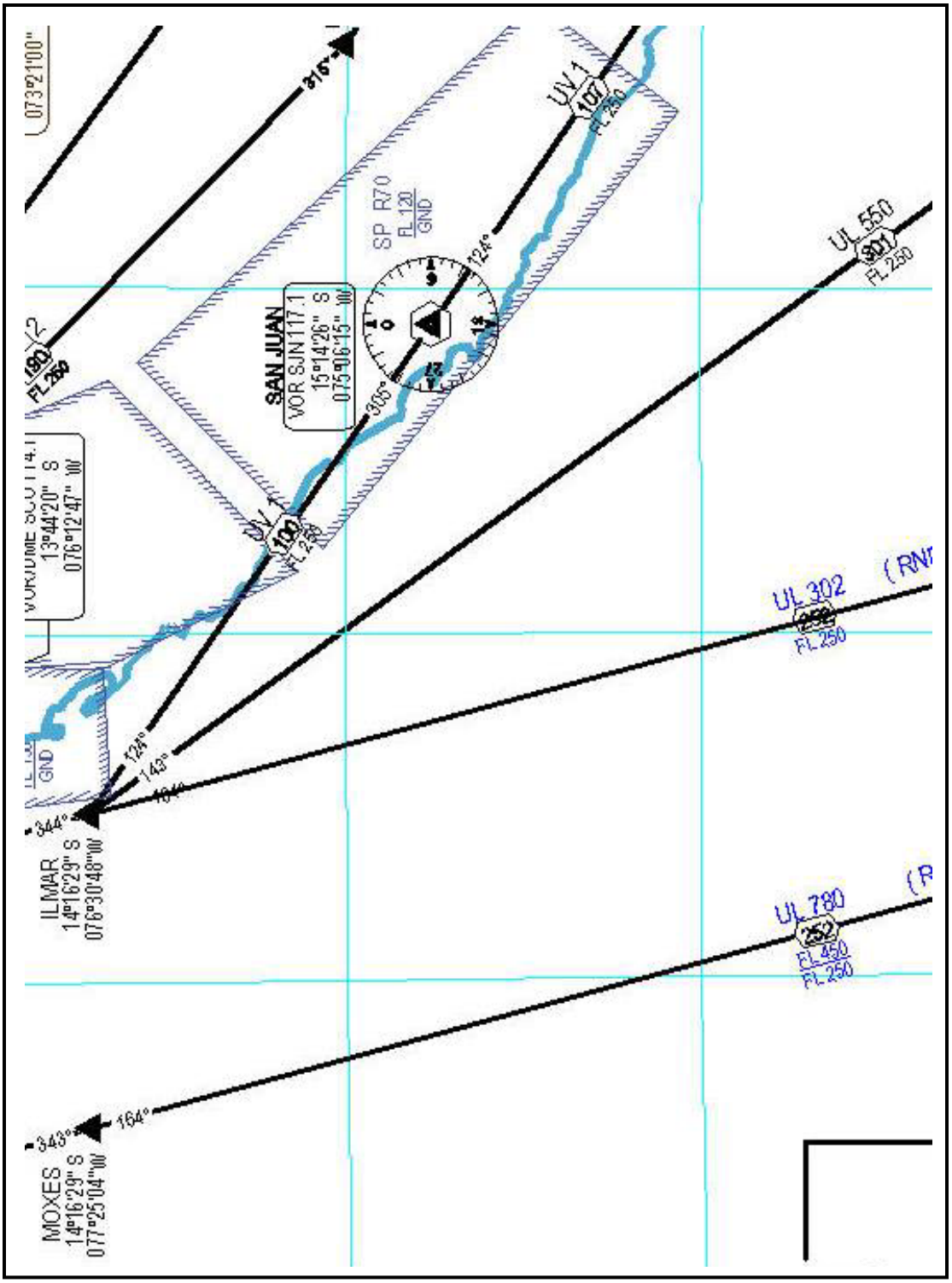
2.2 Due to the above mentioned, we consider necessary to postpone the 50 NM longitudinal separation minimum studies in the UL302 and UL 780 routes until traffic density justifies it, and a Regional agreement for a simultaneous application be established.

3. Suggested Action

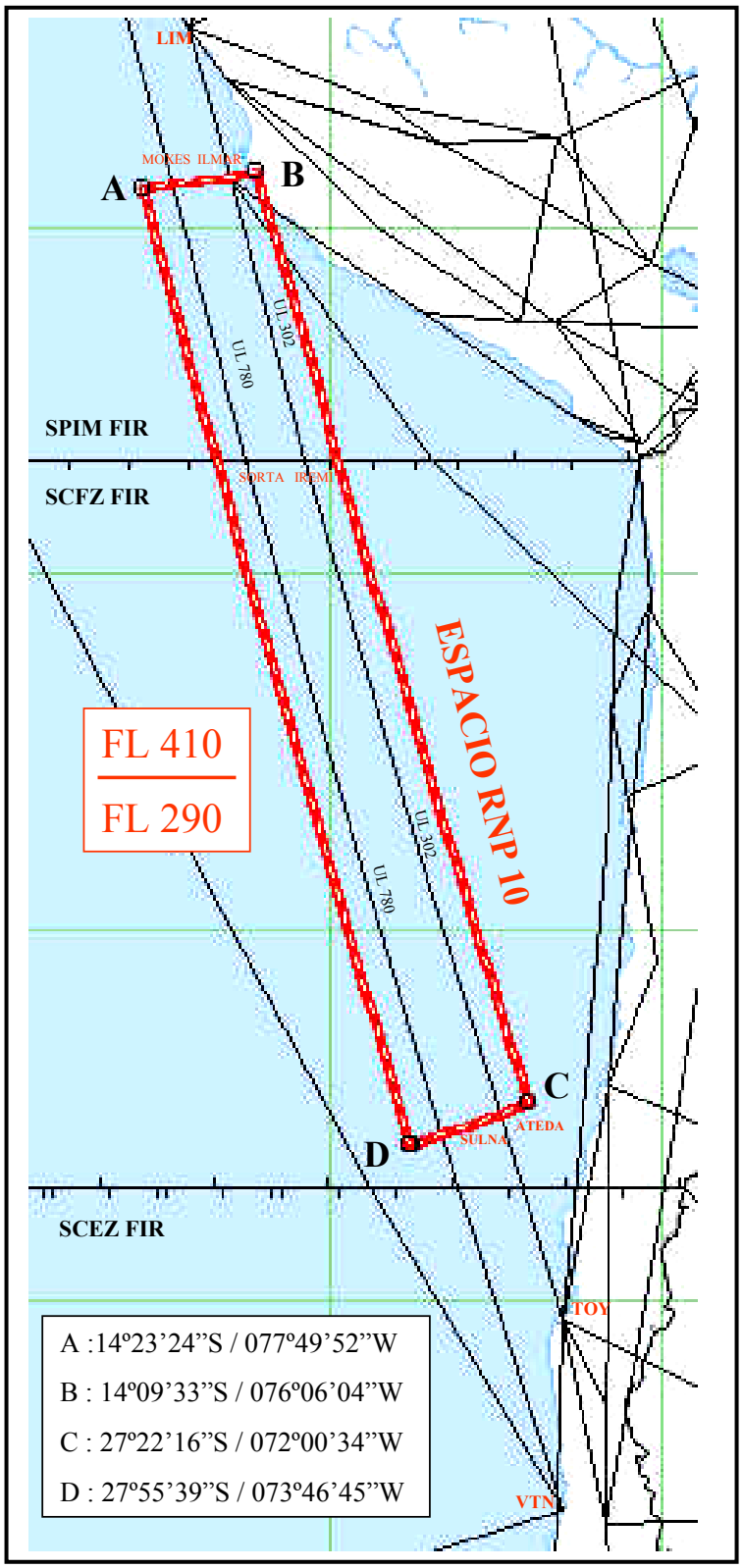
3.1 The meeting is invited to take note about the content of the current Working Paper.

Appendix A

Graphic 1



Graphic 2


LIM
MORES ILMAR
A
B
UL 780
UL 302
SPIM FIR
SORTA IREMI
SCFZ FIR
ESPACIO RNP 10
FL 410
FL 290
UL 302
UL 780
C
ATEDA
SULNA
D
SCEZ FIR
TOY
VTN
A :14º23'24"S / 077º49'52"W
B : 14º09'33"S / 076º06'04"W
C : 27º22'16"S / 072º00'34"W
D : 27º55'39"S / 073º46'45"W