



Agenda Item 5: Other Business

NAARMO-MEXICO RVSM SAFETY MONITORING ACTIVITIES

(Presented by NAARMO)

SUMMARY	
This information paper provides an update on the status of the safety monitoring activities between NAARMO and Mexico.	
REFERENCES:	
- GTE/16 Summary of Discussions, Appendix F.	
ICAO Strategic Objectives:	A - Safety B - Air navigation capacity and efficiency

1. Introduction

1.1 During the GTE/16 Meeting, NAARMO and Mexico met to re-establish data exchange procedures to support RVSM safety monitoring activities for Mexico. Appendix F of the GTE/16 Summary of Discussions contains a summary of the items discussed. The purpose of this information paper is to provide the GTE/17 Meeting with an update of the progress (reference Conclusion GTE/16-5).

2. Discussion

2.1 RVSM Approvals

2.1.1 DGAC Mexico now provides NAARMO with monthly updates to the Mexican RVSM Approvals database. Previously, the frequency of these updates was every two months. There are currently, 767 records of RVSM approved aircraft for Mexico.

2.1.2 Any new aircraft registrations observed in the NAARMO's ground-based height monitoring system (*Aircraft Geometric Height Measurement Element (AGHME) system*) that are not yet in the Mexican RVSM Approvals database, are provided to DGAC Mexico for examination. Also, any Mexican registered aircraft observed squawking an incorrect Mode S address in the AGHME database are provided to DGAC Mexico for investigation.

2.2 Traffic Movement Data

2.2.1 DGAC Mexico provides traffic movement data in accordance with the NAARMO traffic movement data collection template. Through already existing agreements between the FAA and DGAC Mexico, the NAARMO also has access to traffic flow management system (TFMS) data for Mexico.

NAARMO utilizes both the DGAC traffic movement and TFMS data to complete the safety analyses for Mexico airspace. These activities include the audit of RVSM airspace and estimates of vertical collision risk.

2.3 Large Height Deviation (LHD) Data

2.3.1 DGAC Mexico and Servicios a la Navegación en el Espacio Aéreo Mexicano (SENEAM) now provide NAARMO with monthly LHD reports for Mexico Airspace. The NAARMO received 32 LHD reports for the calendar year 2016. **Table 1** provides a summary of qualifying LHD reports for Mexico Airspace. There were 15 report classified as Other, 'M', all of these cases involved flight crews unable to establish normal air-ground communications for a period of time. In all 15 cases, the proper procedure for radio failure (NORDO) were followed, therefore there is no contribution towards risk.

Table 1 - 2016 LHD Report Summary for Mexico Airspace

LHD Category Code	LHD Category Description	No. of LHD Occurrences	LHD Duration (Min)	No of FL Transitioned without Clearance
E	Coordination errors in the ATC-unit-to-ATC-unit transfer of control responsibility as a result of human factors issues	15	14	0
H	Airborne equipment failure leading to unintentional or undetected change of flight level	2	3	1
M	Other	15	0	0
Totals		32	17	1

2.3.2 Four of the fifteen LHD reports classified as coordination errors in ATC transfer, 'E', had zero duration at incorrect flight level in Mexico Airspace. The duration at incorrect flight level for these four LHD events occurred in the adjacent FIR.

2.3.3 The estimated number of annual flying hours is 800,000 hours in calendar year 2016. The 2016 estimate of overall vertical collision risk for Mexico Airspace is 4.77×10^{-9} fatal accidents per flight hour (fapfh). This value is lower than the target level of safety (TLS) for RVSM airspace and is slightly lower than the 2015 vertical collision risk estimate of 4.81×10^{-9} fapfh.

2.4 NAARMO-Mexico 2016 Annual Review Meeting

2.4.1 The NAARMO will schedule the 2016 annual RVSM safety monitoring review meeting in November 2017. This will be a web-based/phone meeting with Mexico, Canada, and U.S.A.