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North American, Central American and Caribbean Office (NACC)

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(C/CAR/DCA/10)**

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Agenda Item 4: Aviation Safety Matters
4.6 Other Aviation Safety Matters

FOREIGN FACILITY DEVIATIONS

(Presented by the United States)

SUMMARY

This paper presents information on safety concerns related to incorrect air traffic control (ATC) coordination when flights cross an adjacent Area Control Center (ACC) boundary and the importance of filing altitude deviation reports with the Caribbean and South American Monitoring Agency (CARSAMMA).

1. Introduction

1.1 Errors in ATC-unit-to-ATC-unit traffic coordination messages, with either the initial transfer of aircraft information or revisions after the initial transfer has been made, usually result in air traffic service (ATS) incidents and Large Height Deviations (LHD), which adversely impact the Target Level of Safety (TLS) for Reduced Vertical Separation Minimum (RVSM) within the region. Therefore, whether or not there is a loss of separation, the reporting of oceanic errors is essential for evaluating the overall safety of oceanic airspace. Besides being hazards to flight safety, they create barriers to future reductions in separation. Timely reporting of oceanic errors allows prompt corrective action.

1.2 As separation reductions are introduced into oceanic and offshore airspaces, reporting becomes much more critical as part of the safety monitoring processes that are established.

2. Discussion

2.1 The most common cause of LHDs is incomplete inter-facility coordination of flight levels or flight level changes. The inter-facility coordination problems result in aircraft entering airspace at flight levels different from what has been specified in the transfer of aircraft information.

2.2 Investigations and corrective actions of these types of incidents are typically done on a unilateral basis; hence, the underlying issues are usually not fully addressed. The ability to conduct these types of investigations on a bilateral basis will assist in conducting a complete investigation and implement safety mitigations that have the potential to correct the issues from end to end. Efforts have been taken at the local levels to mitigate these occurrences. These efforts, unfortunately, have not proven to be effective as the number/rate of occurrences remains for the most part unchanged.

2.3 A key element of analysis of how various categories of LHDs contribute to the calculated vertical operational risk is the reporting of LHDs. The goal of the analysis is to review each incident in detail, identify casual factors of the incidents and establish short term and long term mitigations. The analysis also provides the opportunity to establish a safety culture and relationship in which ATS safety-related data is shared to help identify potential issues so that preventative measures can be taken before ATS incidents occur.

2.4 Therefore, whether or not there is a loss of separation, the reporting of oceanic errors is essential for evaluating the overall safety of oceanic airspace. Besides being hazards to flight safety, they create barriers to future reductions in separation. Timely reporting of oceanic errors allows prompt corrective action.

2.5 The concept of a Regional Monitoring Agency (RMA) came out of the work done by the Review of the General Concept of Separation Panel (RGCSP) when it recognized that there was a requirement for monitoring of aircraft height-keeping performance as part of any Reduced Vertical Separation Minimum (RVSM) implementation program. In establishing this requirement, the RGCSP acknowledged that the RMA would take responsibility for ensuring that appropriate monitoring was carried out in order to provide sufficient data for completion of a risk assessment. Eventually an RMA was conceived as an organization established by an authorized body to provide safety oversight services in connection with the implementation and continued safe use of RVSM within a designated airspace.

2.6 The Caribbean and South American Monitoring Agency (CARSAMMA) has been established at the Centro de Gerenciamento da Navegação Aérea – CGNA (Air Navigation Management Center) in Brazil to support implementation and continued safe use of the RVSM in CAR/SAM airspace and to support implementation and continued safe use of the Required Navigation Performance (RNP) in specific portions of CAR/SAM airspace. Principal duties and responsibilities of the CARSAMMA include:

- a) Monitor all the aspects of horizontal and vertical navigation performance, including height-keeping performance;
- b) Monitor operator compliance with State approval requirements after RVSM implementation;
- c) Conduct safety and readiness assessments after RVSM implementation on CAR/SAM Regions and to report results appropriately;
- d) Initiate necessary remedial actions if RVSM requirements are not met;
- e) Establish and maintain a database of RVSM approvals; and,
- f) Facilitate the transfer of approval data to and from other RVSM regional monitoring agencies.

2.7 Pursuant to its purpose, CARSAMMA carries out its activities through five routines, including monitoring height-keeping performance and the occurrence of great altitude deviations, and issuing the appropriate result reports. When a trend in shared reports is identified, States, Territories and International Organizations can share the information and meet bilaterally to develop a solution to the identified LHD cause.

2.8 The goal of meeting bilaterally is to determine trends, identify inadequate procedures, spot training deficiencies, and ensure as safe an operation as possible.

3. Conclusion

3.1 The meeting is invited to:

- a) Note the information provided in this paper;
- b) Encourage CAR/SAM units in charge of sending reports to continue compliance with the LHD requirements to report to CARSAMMA on a monthly basis; and
- c) Support regional and global activities that will promote accurate and timely reporting of LHDs within the CAR/SAM Regions.

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