International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

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Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5)
Port of Spain, Trinidad and Tobago, 22-26 May 2017

Agenda Item 3: **Implementation on Air Navigation Matters**
3.5 NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) review – Aviation System Block Upgrade (ASBU) implementation progress

PROGRESS REPORT OF THE SCRUTINY WORKING GROUP (GTE)

(Presented by GTE Rapporteur)

EXECUTIVE SUMMARY	
This Working Paper shows objective evidence on the importance of Air traffic services Inter-facility Data Communication (AIDC) implementation and the positive impact on the Large Height Deviation (LHD) events mitigation.	
Action:	The CAR States implement AIDC as the main mitigation measure for LHD events.
Strategic Objective:	Safety
References:	• Fourteenth Scrutiny Working Group Meeting (GTE/14) - Final Report • Fifteenth Scrutiny Working Group Meeting (GTE/15) - Final Report • Sixteenth Scrutiny Working Group Meeting (GTE/16) – Final Report

1. Introduction

1.1 Since the Reduced Vertical Separation Minimum (RVSM) implementation the Caribbean and South American Monitoring Agency (CARSAMMA), jointly with the Scrutiny Working Group (GTE) have analyzed LHD events and have performed the Collision Risk Model (CRM) assessments with the objective of measuring the Target Level of Safety (TLS) compliance established in the ICAO Doc 9574 — *Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive.*

1.2 During 2010 – 2015, gradual increase in the LHD events was experienced, from 687 in 2010 to 1,225 in 2015. CRM evaluation data shows that, despite this rise, the result on safety level assessment, using CRM methodology established in the Doc 9574 is below the TLS established of 5×10^{-9} fatal accidents per flight hour.

1.3 Likewise, it has been determined that 94% of LHD events in the CAR/SAM Regions are produced by mistakes in the coordination cycle between Air Traffic Control (ATC) adjacent dependencies.

2. Development

2.1 This sustained event's increase resulted on the CARSAMMA and GTE developed a methodology based on Safety Management System (SMS), which assess individually each LHD event, designating a specific Risk Value (VR) to each LHD. This methodology is included in the "*Manual-Guide on the Assessment of Large Height Deviation (LHDs) with SMS methodology for the evaluation of the LHD reports*".

2.2 This methodology was presented and approved in the Seventeenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/17) held in Cochabamba, Plurinational State of Bolivia and has as objective that, despite the CRM evaluation results show that CAR/SAM Regions are below the TLS established, the States/International Organizations must implement measures to mitigate events which VR is greater than the one established in the SMS methodology, which is different form the established in the CRM evaluation.

2.3 Also, it has been developed a dynamic in the on-site meetings, in which States/International Organizations present mitigation actions taken with the purpose to share best practices.

2.4 These initiatives have resulted on, for second year consecutive, a reduction in events of 11.18% is obtained, with a total of 1,088 LHDs obtained during 2016, in comparison to 1,225 LHDs obtained in 2015.

2.5 Several factors have influenced in the events reduction, between them can be mentioned, the increase in ATC room oversight, ATC personnel training, among others; but above all, the highest impact has been from the AIDC implementation.

2.6 Data shows that the Flight Information Regions (FIRs) that have implemented AIDC have reduced events in more than 95%. Such is the case of Cuba and COCESNA, which have automatic coordination since 2015 and have not have an LHD since. Similarly, between Cuba and the Miami ACC, neither have LHD events between their FIRs. Between COCESNA and Merida, one (1) LHD since AIDC implementation.

2.7 This data shows definitely that, AIDC implementation is the mitigation action with the highest impact to slash mistakes in the coordination cycle between adjacent ATC dependencies.

3. Suggested actions

3.1 The Meeting is invited to:

a) Acknowledge the information provided in this Working Paper;

b) encourage States/International Organizations from the CAR Region to implement AIDC as main mitigation measure for LHD events; and

c) recommend other actions as deemed necessary.

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