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WORKING PAPER

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CAR/SAM Planning and Implementation Regional Group (GREPECAS) Twenty Second Scrutiny Working Group Meeting (GTE/22)

Mexico City, Mexico, 26 to 30 September 2022

Agenda Item 5: Other Business

DIGITALIZATION OF THE LHD CARSAMMA REPORT F4 FORM

(Presented by CARSAMMA)

EXECUTIVE SUMMARY	
This Paper presents information related to the digitization of the F4 form of LHD (Large Height Deviation) reports.	
Action:	Suggested Actions are included in Section 3
Strategic Objectives:	• Safety
References:	• Doc 9937, Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive.

1. Introduction

1.1 The LHD is a descriptive report form, with 22 fields currently, completed by the Air Traffic Controller (ATCO), of any operational and/or technical error that presents a vertical deviation of 90 meters (300 feet) or more with respect to the flight level that the aircraft should occupy. Among the most common reports are coordination errors between the air traffic control units (ATC), aircraft flying in RVSM airspace and that are not approved, unauthorized ascents or descents, deviations from meteorological formations uncoordinated and traffic resolution warnings (TCAS - Traffic Collision Avoidance System).

1.2 Considering the advances in information technology (IT), the possibility of integrating LHD reports with other systems, studies on the future reduction of vertical and horizontal separations between aircraft, investments in the quality of services provided, it seems that the development of a digitized system for reporting large height deviation (LHD) will provide essential benefits to increase safety in RVSM airspace.

1.3 In this context, from June to August 2021, the Caribbean and South American Monitoring Agency (CARSAMMA) began the implementation of the e-LHD (electronic LHD form) in the Brazilian FIRs (SBCW, SBBS, SBRE, SBAO and SBAZ) and, as of September 2021, after the GTE meeting, proposed to implement the e-LHD for the other Caribbean and South American regions.

1.4 To this end, the GTE requested the cooperation of two FIRs, one being a native Spanish speaker and another native English speaker, to review the text and functionalities of the e-LHD. This review period ended in February 2022, having been presented the result in a meeting with the ICAO Offices of Lima and Mexico, plus the representatives of the Ezeiza and Piarco FIRs who are the Contact Points of CARSAMMA that will collaborate in the review.

2. Discussion

2.1 In the last year, CARSAMMA received, via e-mail, through standardized forms, 592 data related to LHD reports that were later validated by specialized technicians, together with the total number of air movements per year, in order to provide the review necessary for the Vertical Collision Risk Analysis between aircraft that are presented, through studies, to the aeronautical community, in order to guide the actions, by the States of the CAR / SAM regions, to combat collision vertical between aircraft.

2.2 However, it is noted that the process used (e-mail), given the importance and amount of information handled, lacks a digitized system and, in the future, will need an automated system, according to the CNS / ATM concept, providing a better adaptation of the ATCO workload and the evolution of the calculations related to the Vertical Collision Risk Analysis.

2.3 Therefore, in June 2021, CARSAMMA started the testing and implementation process of the e-LHD as shown in the following table:

DATE	EVENT
01 JUN 2021	Start of the test phase with FIR-RE
05 JUL 2021	Start of the test phase with the other FIRs in Brazil
23 a 26 AGO 2021	GTE - meeting with all POCs in the CAR/SAM region

Table 1 - e-LHD Implementation Schedule

2.4 The new form is available in three languages: (Portuguese, Spanish and English) at: http://carsamma.provisorio.ws/DevTemp/f4.html.

2.5 The initiative to digitize LHD reports was designed with the greatest focus on modernizing and simplifying the process, to increase productivity, motivation, quality of service, improve the capture of errors made in RVSM airspace and produce a more user-friendly interface.

2.6 When digitizing the form, some fields were excluded, of the 22, there are now 13 fields. The main reason for the elimination of these elements was that some provided duplicate information or that their data was not used in the CARSAMMA analysis. This was information that did not affect the Operational Safety Assessment and in specific cases, if necessary, or in any specific request, we can search for the information in specific software, but by eliminating these fields that were not being used, we simplified the form e-LHD.

2.7 Among the main expected advances, the following stand out: a more solid and reliable database, a more simplified process (the easier it is to fill out the LHD, the greater the motivation to report it), less intervention of the PoC in the aspect of controlling the sending of LHD reports (They will be able to concentrate their efforts on promoting Operational Safety) and for the future creation of indicators (DASHBOARD).

3. Suggested Action

3.1 The Meeting is invited to:

a) Approve the implementation of the electronic form (e-LHD) throughout the territory of the CAR/SAM Regions, maintaining the old method as backup.

b) Inform GREPECAS about the decision to implement the electronic form (e-LHD) throughout the territory of the CAR/SAM Regions; and

c) Take any additional action deemed necessary.

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