



OACI

Organización de Aviación Civil Internacional
Oficina Regional Sudamericana

WORKING PAPER

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**CAR/SAM Planning and Implementation Regional Group (GREPECAS) Twenty-Third Scrutiny
Working Group Meeting
(GTE/23)**

Lima, Perú, September 11 to 15, 2023

Agenda Item 5: Other business

**ACTIONS TO IMPROVE THE LHD CARSAMMA FORM F4,
OF THE WORKING GROUP ON SCRUTINY GTE**

(Presented by Colombia)

EXECUTIVE SUMMARY	
This working paper aims to submit and approve amendments to Form F4 as an option to improve the analysis of LHD events and identify adverse trends that may affect safety in RVSM airspace."	
Action:	Amend Scrutiny Group Form F4 (GTE)
Objectives Strategic:	<ul style="list-style-type: none">• Strategic Objective 1 – Operational Safety
References:	<ul style="list-style-type: none">• Guidance Manual for Contact Points (PoCs) Accredited to CARSAMMA

1. Introduction

1.1 The Scrutiny Working Group (GTE) and the Monitoring Agency for the CAR/SAM Regions (CARSAMMA) have developed a methodology for the analysis and evaluation of LHD events, based on a Safety Management System (SMS), with the aim of increasing the level of operational safety in the RVSM airspace of the CAR/SAM Regions. This methodology allows an assessment of the risk to each event individually and helps to identify trends and critical points of occurrence.

1.2 In order to fulfill the task of reviewing the occurrences of large altitude deviations, the GTE approved the Guidance Manual for Contact Points (PoC) accredited to CARSAMMA whose last revision was in 2021.

1.3 The Guidance Manual establishes the procedures to be applied by the PoCs of the CAR/SAM States, responsible for coordinating the completion of the forms used by CARSAMMA for the monitoring of RVSM airspace.

1.4 Form F4 – Large Altitude Deviation must be completed by the ANS PoC and is used to report LHDs of 300 feet or more, regarding the authorized altitude to the aircraft.

1.5 The PoC Guidance Manual establishes a buffer zone, which is a period of time used to determine whether a coordination error between facilities should be considered an LHD.

1.6 The current value set is 3 minutes or 20 nm. In other words, if the limit crossing estimate is provided before the agreed "damping" time/distance, whether the pilot contacts the receiving unit or the estimate is transferred via the official coordination route (PANS-ATM DOC. 4444, Chapter 10), then the event is not considered an LHD; on the contrary; if the estimate is received at the equivalent or less of the stated damping value, then the event is an LHD.

1.7 The greatest risk is the time the aircraft spends at a flight level that is not the authorized. This parameter contributes significantly to the calculation of operational risk.

1.8 The AWG identified the need to set a default duration value, to be assigned to those events where there is not enough information in the report to determine the time elapsed at an incorrect flight level. Two default values were set: one for a 60-second ATS surveillance system environment, and the other for an environment that does not have 90-second ATS surveillance systems.

2. Analysis

2.1 In order to state the tasks efficiently, it is necessary that 1st Contact Points (PoC) of FIR accredited to CARSAMMA investigate and validate the LHD reports complying with the procedure established between FIRs, then proceed to register the events in the forms: F4 – Large Deviation of Altitude and F4 – Large Deviation of Altitude, Multiple Reports Form and finally sent to CARSAMMA before the 15th day of the month following the reporting period.

2.2 Form F4 – Great Altitude Deviation in WORD format contains the information of the LHD event individually and requires to be filled out for each event suffered by the FIR.

2.3 Form F4 – Large Altitude Deviation (Multiple Report Sheet) in Excel format contains a consolidated event and a tab for the description of each event suffered by the FIR.

2.4 Form F4 (Word and Excel) contains in numeral eight (8) the time of occurrence of the LHD event, but does not record the time of the first call of the aircraft which is important to determine if it is within the buffer zone where the pilot can communicate with the receiving unit and report its transit and would not constitute an LHD event.

2.5 To record the time of first call to the receiving FIR will allow to determine the time elapsed in which the aircraft occupied an incorrect level and not assign it by default.

2.6 The record of the time of first contact of the aircraft with the receiving FIR would allow to identify the operational trend of any transferring FIR by using this procedure as a recurrent method of coordination and will allow the AWG to make recommendations to reduce the effect of such trends.

3. Suggested actions:

3.1 The Meeting is invited to:

- a) Take note of the information contained in this working paper;
- b) approve the change to Form F4 to include the time of the aircraft's call to the receiving FIR;
- c) because Form F4 – Large Altitude Deviation (Multiple Report Form) contains all the information necessary in a general and individual way to be used by CARSAMMA in the analysis of LHD events, establish it as the only means of reporting POCs and discontinue the use of the F4 Word format;
- d) send to CARSAMMA the forms of the reports that do not classify as LHD due to the time of call to the receiving FIR is in the buffer area to keep statistics; and
- e) Recommend other actions deemed necessary.