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

WORKING PAPER

GTE/24 — WP/03
16/07/24

CAR/SAM Planning and Implementation Regional Group (GREPECAS)
Twenty Fourth Scrutiny Working Group Meeting (GTE/24)
Mexico City, Mexico, 5 to 9 August 2024

Agenda Item 4: Activities and tasks to be reported to GREPECAS
4.1 Update of the GTE Terms of Reference (ToRs)

PROPOSAL FOR UPDATING THE GUIDANCE MANUAL FOR THE POINTS OF CONTACT (POC) ACCREDITED TO CARSAMMA

(Presented by the GTE Rapporteur)

EXECUTIVE SUMMARY

Updating the Guidance Manual for Points of Contact(PoCs) Accredited to CARSAMMA is essential to maintaining safety, efficiency, and effectiveness in the monitoring of RVSM airspace. These changes not only enhance communication and coordination among all parties involved but also ensure compliance with current regulations and the ability to proactively address new challenges.

Action:	Suggested Actions are included in Section 4
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency
References:	• Final report of the CAR/SAM Planning and Implementation Regional Group (GREPECAS) Twenty-Third Scrutiny Working Group Meeting GTE/23. Lima, Peru, 11 to 15 September 2023 • Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive • Guidance Manual for Points of Contact (PoCs) Accredited to CARSAMMA

1. Introduction

1.1 The Guidance Manual for CARSAMMA Accredited Points of Contact (PoC) plays a crucial role in the management and monitoring of the RVSM (Reduced Vertical Separation Minimum) airspace in the Caribbean and South American Regions. This document establishes the procedures, responsibilities, and communication standards to be followed to assess operational safety in the RVSM airspace. However, in such a dynamic and constantly evolving environment as RVSM airspace management, it is necessary to periodically update this manual to ensure that it reflects best practices and responds to technological and operational changes.

1.2 In recent years, various challenges have been identified in the communication process among all stakeholders involved in monitoring RVSM airspace. These findings highlight the need to review and update the manual to incorporate new technologies, best practices, and regulatory changes, as well as to address previously identified communication issues. By doing so, we not only enhance the accuracy and effectiveness of monitoring but also ensure that Points of Contact (PoCs) are adequately prepared and trained to meet current and future challenges.

1.3 This update is essential for maintaining a high level of operational safety, optimizing communication procedures, and ensuring that all Points of Contact (PoCs) operate with the highest efficiency and clarity possible. In this context, this document outlines the reasons and benefits for making these changes, providing a solid foundation for the continuous improvement of RVSM airspace monitoring.

2. Analysis

2.1 During the LHD event validation and reporting process, opportunities for improvement in the communication process among those involved in RVSM airspace monitoring have been identified. These include the following:

2.2 Improvements in Communication:

- Clarity and Consistency: An updated manual can eliminate ambiguities and ensure that all PoCs clearly understand their roles and responsibilities.
- Standardization: Improving and standardizing communication procedures facilitates coordination and reduces errors.

2.3 Management of Identified Challenges:

- Addressing Previous Problems: Specific communication issues have been identified, and updates to the manual can address these directly by proposing solutions based on past experiences.
- Feedback and Continuous Improvement: Incorporating feedback from PoCs allows the manual to evolve continuously, enhancing its effectiveness and efficiency.

2.4 Training and Development:

- Updating PoCs: An updated manual serves as a foundation for the ongoing training of PoCs, ensuring they stay current with best practices and procedures.
- Competency Development: Including new methodologies and approaches in the manual can help develop additional competencies in PoCs.

3. Conclusions

3.1 Updating the Guidance Manual for the Points of Contact (PoCs) Accredited to CARSAMMA is essential for maintaining safety, efficiency, and effectiveness in the monitoring of the RVSM airspace. These changes not only improve communication and coordination among those involved but also ensure compliance with current processes and prepare for proactively addressing new challenges.

4. Suggested Actions

4.1 The Meeting is invited to:

a) take note of the information contained in this Working Paper;

b) approve the changes to the Guidance Manual for PoCs accredited to CARSAMMA, presented in the **Appendix** to this Working Paper;

c) request the GTE to schedule training sessions to raise awareness of the changes presented to the Guidance Manual; and

d) suggest any other action deemed appropriate.

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APPENDIX
PROPOSED CHANGES TO THE GUIDANCE MANUAL FOR POINTS OF CONTACT (POC) ACCREDITED TO CARSAMMA

CHAPTER 1
Introduction

- **Article 1.1.1 amended:**

1.1 Background
1.1.3 CARSAMMA was established by the 10th meeting of GREPECAS held in Manaus in 2002. Brazil assumed the responsibility of providing the means for the functioning of the Agency monitoring the CAR/SAM Regions RVSM airspace and as a repository of a data base of RVSM/PBN certified aircraft by the civil aviation authorities of the States of the regions. This Agency is located in Rio de Janeiro, having as its scope, the whole region of the Caribbean and South America, which comprises a total of 34 FIRs, including 21 States, with the exception of Mexico.

1.1 Background
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RMA	REGION	ESTADO	FIR
CARSAMMA	CAR	BELIZE COSTARICA EL SALVADOR GUATEMALA HONDURAS NICARAGUA	Central Amèrica (CENAMER)
		CURACAO	Curacao
		CUBA	La Habana
		JAMAICA	Kingston
		ANTIGUA Y BARBUDA BARBADOS DOMINICA FRANCIA GRENADA SANTA LUCIA SANKITTS Y NEVIS SAN VICENTE TRINIDAD Y TOBAGO	Piarco
		HAITI	Port au Prince
		REPUBLICA DOMINCANA	Santo Domingo

RMA	REGION	ESTADO	FIR
CARSAMMA	SAM	ARGENTINA	Cordoba Ezeiza Mendoza Resistencia Comodoro
		BOLIVIA	La Paz
		BRASIL	Atlantico Amazonica Brasilia Curitiba Recife
		CHILE	Punta Arena Santiago Antofagasta Pascua Puerto Montt
		COLOMBIA	Barranquilla Bogotà
		ECUADOR	Guayaquil
		GUYANA	Georgetown
		GUYANA FRANCESA	Cayena
		PANAMA	Panama
		PARAGUAY	Asuncion
		PERU	Lima
		SURINAM	Paramaribo
		PARAGUAY	Montevideo
		VENEZUELA	Maiquetia

- **Article 1.4 amended:**

1.4 List of Acronyms (acronyms inserted)
PBN Performance-based navigation
PBCS Performance Based Communications and Surveillance

CHAPTER 2
Orientation Guide for Points of Contact (Poc) accredited to CARSAMMA

- **Article 2.3.4 amended:**

2.3.4 The LHD (F4) is validated between the FIRs involved. In the event that any F4 form lacks the necessary data and information, the PoC is required to send the report and provide the information for analysis and validation. Validation can be carried out by the means considered most appropriate (teleconference, official PoC email, etc.).

2.3.4 The LHD (F4) is validated among the FIRs involved. In the event that any F4 form lacks the necessary data and information, the PoC will be required to send the report, provide the information for analysis and validation. Validation can be carried out by the means considered most appropriate (teleconference, official PoC email, etc.).

- ***Section 2.3.5 inserted:***

2.3.5 Quarterly, after the publication of the official list of validated LHDs made by CARSAMMA, Teleconferences will be held to coordinate any inconsistencies in the validated LHD data and/or present the causes, contributing factors and corrective actions of those events that their value SMS risk is medium or high. The PoCs will have 10 days after the publication of the validated reports to send their comments or objections.

CHAPTER 3
Assessment Guide for Major Altitude Deviations (LHD) based on the Safety Management System (SMS).

- **The note of article 3.2.4 modified:**

Note. - In Table 3, and only for the calculation of the risk value in terms of qualitative assessment, category "E" is subdivided into "E1 - Poor coordination" and "E2 - Absence of coordination", which imply a risk value different ending. In the code table for LHD, these codes do not exist, but in the old table there were codes M (used for poor coordination), with value = 2 and N (absence of coordination), with value = 3. In order not to lose the historical series in that analysis, the E code is divided into two for this analysis.

Note. - In Table 3, and only for the calculation of the risk value in terms of qualitative assessment, category "E" is subdivided into "E1 - Poor coordination" and "E2 - Absence of coordination", which imply a risk value different ending.

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VR	Nivel de Riesgo	Control
76-100	HIGH	Unacceptable risk, the RVSM space must be cancelled until the danger is mitigated and the risk is reduced to the medium or low level
21-75	MEDIUM	Acceptable risk, but the follow-up and riskmanagement are mandatory
01-20	LOW	Acceptable without restriction or limitation, hazards do not require an active riskmanagement, but must be documented

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VR	Nivel de Riesgo	Control
76-100	**HIGH**	**Unacceptable risk, the RVSM space around the reported point, must be suspended until the danger is mitigated and the risk is reduced to the medium or low level**
21-75	**MEDIUM**	**Acceptable risk, but the follow-up and riskmanagement are mandatory**
01-20	**LOW**	**Acceptable without restriction or limitation, hazards do not require an active riskmanagement, but must be documented**

CHAPTER 4
Terms of reference

· **Article 4.2 modified:**

4.2 Terms of Reference (ToR) of the Scrutiny Working Group (GTE)

A. Bring together experts in safety management, air traffic control, aircraft flight operations, regulation and certification, data analysis and risk models;
B. Analyze and evaluate LHDs of 300 feet or more, as defined in ICAO Document 9574, Manual for the Implementation of a Minimum Vertical Separation of 300 m (1,000 ft) between FL 290 and FL 410 inclusive;
C. Coordinate with CARSAMMA the collection and review of data on LHDs;
D. Determine and validate an estimate of the flight time outside the authorized flight level used to calculate the collision risk model (CRM) by CARSAMMA;
E. Identify safety trends based on LHD deviation analysis reports, recommend mitigation actions in accordance with ICAO SMS provisions and send annual reports on the results of safety assessments to GREPECAS in order to to improve operational safety in the RVSM space of the CAR/SAM Regions; and
F. Perform other tasks indicated by GREPECAS

A. Bring together experts in safety management, air traffic control, aircraft flight operations, regulation and certification, data analysis and risk models;
B. Analyze and evaluate LHDs of 300 feet or more, as defined in ICAO Document 9574, Manual for the Implementation of a Minimum Vertical Separation of 300 m (1,000 ft) between FL 290 and FL 410 inclusive;

C. Coordinate with CARSAMMA the collection and review of data on LHDs according to established times and procedures;
D. Determine and validate an estimate of the flight time outside the authorized flight level used to calculate the collision risk model (CRM) by CARSAMMA;
E. Identify operational safety trends based on LHD deviation analysis reports,
F. Recommend mitigation actions in accordance with ICAO SMS provisions and send annual reports on the results of safety assessments to GREPECAS in order to improve safety in the RVSM space of the CAR/SAM Regions; and
G. Perform other tasks indicated by GREPECAS

- **Article 4.1.1 modified:**

CARSAMMA functions:

A. Maintain a central record of RVSM approvals of operators and aircraft of each State/Territory that uses CAR/SAM RVSM airspace;
B. Facilitate the transfer of approved data to and from other RVSM regional monitoring agencies (RMAs);
C. Establish and maintain a database containing altimetry system errors of altitude and deviations of 300 feet or more, and deviations in the horizontal plane within the RVSM airspace of the CAR/SAM Regions;
D. Disclose timely information to the civil aviation authorities (CAA) of the States on the changes or monitoring status of aircraft type classifications;

E. Disclose the result of the monitoring flight using the GPS Global Monitoring System (GMS);
F. Provide the means to identify aircraft without RVSM approval operating in the RVSM airspace of the CAR/SAM Regions and notify the civil aviation authority (AAC) of the State of the fact;
G. Develop the means to summarize and communicate the content of relevant databases to the RVSM Scrutiny Group (GTE) for the corresponding safety assessment; and
H. Carry out the evaluation of the collision risk level (CRM) in the RVSM airspace of the CAR/SAM Regions, according to ICAO Doc. 9574 and Doc. 9937.

4.3 CARSAMMA Terms of Reference (TOR)

CARSAMMA functions:

A. Monitor the level of risk due to operational errors and in-flight contingencies as follows:

- Establish and maintain a mechanism to collect and analyze all operational errors, including vertical deviations of 90 m (300 ft) or more, lateral deviations, and longitudinal separation losses;
- Determine and analyze, if possible, the root cause of each deviation along with its magnitude and duration;
- Calculate the frequency of occurrences;
- Evaluate the overall risk (technical and operational) in the system against the overall safety objective (see Doc 9574 - Manual on the Implementation of a Minimum Vertical Separation of 300 m (1 000 ft) between FL 290 and FL 410 inclusive);
- Initiate follow-up actions with the State's aeronautical authorities as necessary;

B. Circulate regular reports on all operational deviations, along with the necessary graphs and tables to relate the estimated system risk to the TLS, using the criteria detailed in Doc 9574, for which formats are suggested in Appendix A of Doc 9574;

C. Produce an annual report on operational performance in the CAR/SAM Regions for distribution to CARSAMMA Member States and other interested parties, and submit an annual report to the PIRG (GREPECAS);

D. Act as custodian of all technical aircraft height-keeping performance data collected as part of the CAR/SAM regional monitoring process;

E. Report the height deviations of aircraft that are observed not to comply, based on the following criteria:

i. Total Vertical Error (TVE) ≥ 90 m (300 ft);
ii. Altimetry System Error (ASE) ≥ 75 m (245 ft);
iii. Assigned Altitude Deviation (AAD) ≥ 90 m (300 ft);
and take necessary steps with the relevant State and operator to determine:

- the probable cause of height deviation;
- whether the approval status of the relevant operator is verified; and to
- recommend, whenever possible, corrective measures;

F. Analyze the ASE data to detect height deviation trends and therefore act as in the previous point;

- Investigate the height maintenance performance of the aircraft in the core of the distribution:
  - the aircraft population;
  - types or categories of aircraft; and
  - individual fuselages;

G. Provide the aeronautical authorities of the State of the CAR/SAM Regions with height monitoring data upon request;

H. Liaise with other Regional Monitoring Agencies (RMAs) to achieve exchange of monitoring data and RVSM/PBCS approvals between regions;

I. Ensure that aircraft operators contained in the RVSM approvals database complete the required height monitoring and take appropriate action when necessary;

J. Establish and maintain a database of aircraft approved by the authorities of the respective State for operations within the RVSM/PBCS airspace in that region;

K. Conduct approval status checks for aircraft operating in relevant RVSM/PBCS airspace, identify non-approved operators and aircraft using RVSM/PBCS airspace and notify the relevant State of Registry/State of Operator;

L. Receive reports of non-compliance (Reference from the Performance-Based Communication and Surveillance Manual (PBCS - Doc 9869) with RSP 180 and RCP 240 of the ANSP CAR/SAM and transmit reports to the respective RMA associated with the State of the respective operator;

M. Receive and maintain records of RCP and RSP approvals issued by States of the Operator/Registry associated with the State's current responsibility and incorporate them into the expanded

database of RVSM/PBCS approvals and follow up on appropriate instances of non-operating aircraft. approved aircraft identified in PBCS airspace. This would be determined by increasing the existing monthly RVSM approval check to incorporate a similar check against PBCS approvals when they have been included in the flight plan, but RMAs do not have a record of those approvals;

N. Share RCP and RSP approval records between RMAs in accordance with current RVSM approval sharing practices so that States/ANSPs can verify that aircraft operators presenting PBCS capabilities in the flight plan are authorized to do so.

- **Article 4.4 added:**

4.4 Terms of Reference (TOR) of the Rapporteur

A. The rapporteur must be familiar with the ICAO Policy on Interactions with External Parties. The activities of the Expert Working Group (GTE) will be aligned with GREPECAS procedures, and any action will be agreed upon with the Regional Specialist in charge. The rapporteur will not take any action without the consensus of the ICAO Regional Specialist in charge.

B. The Rapporteur will participate, together with the Secretariat, in the preparation of the reports of the GTE meetings.

C. The Rapporteur will be responsible for preparing and presenting an annual executive report to the Secretary of GREPECAS containing the relative statistical information on the LHD, as well as recommendations on risk mitigation measures that they deem relevant and on the activities and decisions of the Working and Scrutiny Group (GTE).

D. The Rapporteur will have a participatory and leadership role in promoting activities within the CAR/SAM regions that contribute to reducing LHD events, in coordination with the State focal points.

E. The Rapporteur must assume his or her duties from the end of the meeting in which they are elected.

F. The application for Rapporteur must be made before the GTE meeting and the candidate must be a participant of the group who has the necessary experience to comply with the TOR.

G. Attend, to the extent possible, all GTE and GREPECAS meetings.

CHAPTER 5

Reference Guide for Validating LHD Events

- **Article 5.4.6 modified:**

5.4.6 The duration calculation begins once the aircraft is level at a flight level that is not the level authorized or planned by ATC, and concludes once ATC initiates corrective actions.

5.4.6 The duration calculation begins once the aircraft leaves three hundred feet to occupy a flight level that is not the level authorized or planned by ATC, and concludes once ATC initiates corrective actions.

- ***Articles 5.4.7 and 5.4.8 added:***

5.4.7 If the receiving FIR is not aware of the traffic, and the aircraft calls the receiving FIR before entering its airspace, outside of the buffer zone established in 5.5.1 and notifies the level it is occupying, it is an LHD and the duration will be zero (o), as long as the actions taken by ATC are immediate and prior to the aircraft entering its area of responsibility.

5.4.8 If the aircraft enters an airspace with an unauthorized level without establishing communication and the FIR has a surveillance service, the duration of the event will be calculated from the moment the aircraft enters the FIR until the ATC performs the appropriate Radar identification. The observations of the reason why timely communication with the aircraft was not established must be recorded on Form F4.

· Articles 5.5.2.1 and 5.5.3.1 are modified by incorporating the new articles which are underlined.

5.5.2.1 When the receiving FIR has ATS surveillance system coverage that reaches the airspace of the transferring FIR and it is observed that the aircraft has a flight level different from the previously coordinated one, which has not been modified, it is considered LHD. The duration is recorded in one-second increments in accordance with 5.4.5, 5.4.6, 5.4.7 and 5.4.8. It will be part of the elements to be validated between the FIRs involved. If the ATC unit does not have enough information in the LHD report to determine the time (seconds) elapsed at an incorrect flight level, the default value established by the GTE is assigned. in 5.4.11 of this manual.

5.5.3.1 When the receiving FIR has contact with the aircraft before entering its airspace, and becomes aware of the change in the aircraft's flight level with respect to the previously coordinated level, it is considered an LHD. The previously validated duration is recorded in one-second increments as established in 5.4.6, 5.4.7 and 5.4.8. If the ATC unit does not have enough information in the LHD report to determine the time (seconds) spent at an incorrect flight level, the default value established by the GTE in 5.4.12 of this manual is assigned. In case the transfer unit checks the flight level error before crossing the transfer control point (TCP) then it is not considered as LHD.

5.5.4.1 When an aircraft enters a receiving FIR and reports a flight level other than the previously coordinated one, it is considered an LHD. Consideration must be given to the time at which the aircraft crosses the FIR boundary, and whether the relevant ACC becomes aware of the traffic and takes action regarding the deviation. Also, ACC must consider whether this action means leaving the aircraft at the level it is reporting, or moving the aircraft to a level where it does not conflict with the air traffic control planning of the FIR. The duration is recorded in one-second increments in accordance with 5.4.5, 5.4.6, 5.4.7 and 5.4.8. It is also validated by the FIRs involved. If the ATC unit does not have enough information in the LHD report to determine the time (seconds) spent at an incorrect flight level, the default value established by the GTE in 5.4.11 of this manual is assigned.

- **Article 5.5.5.1 modified:**

5.5.5 Lateral deviation without coverage of ATS surveillance systems in the adjacent FIR.

5.5.5.1 When an aircraft reports a laterally diverted position with respect to the original transfer point, either via another route or due to a deviation requested by the crew for reasons of operational convenience, an

LHD is not considered to exist since the Initial reporting philosophy on LHD refers to vertical deviations and not lateral deviations. However, for RVSM airspace operational safety purposes, these deviations will be reported to CARSAMMA for analysis and study.

5.5.5 Lateral deviation without coverage of ATS surveillance systems in the adjacent FIR.

5.5.5.1 When an aircraft reports a laterally diverted position with respect to the original transfer point, either via another route or due to a deviation requested by the crew for reasons of operational convenience, LHD is not considered to exist since the Initial reporting philosophy on LHD refers to vertical deviations and not lateral deviations. However, for operational safety purposes of RVSM airspace these deviations will be reported to CARSAMMA for analysis and study with code N.

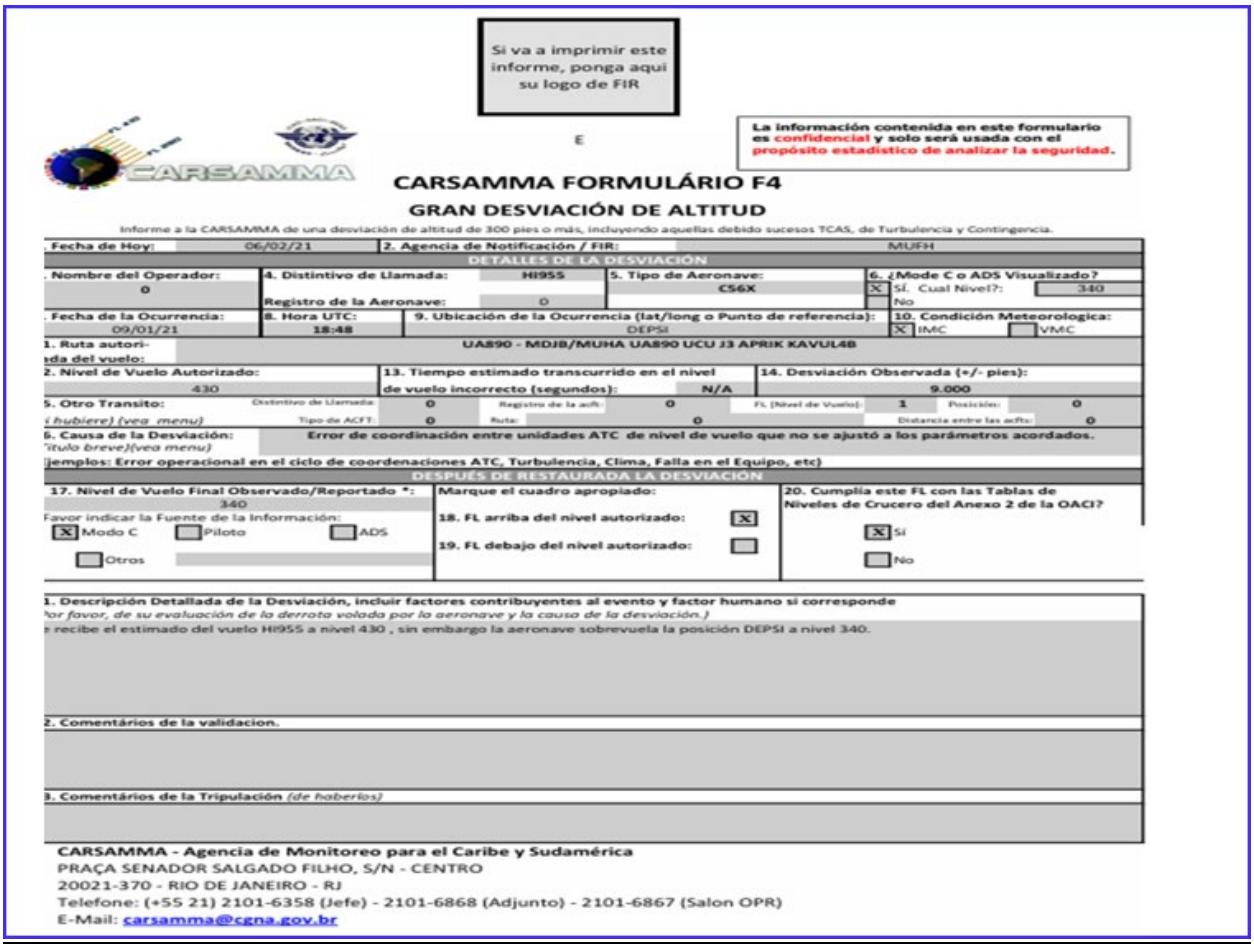
- Table 10 of 5.6.1 is modified by adding the division E1 and E2 to code E and the code is added

E	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors (e.g. late or missed coordination, incorrect estimated / actual time, or non-observance of flight level, ATC route, etc. ., according to the agreed parameters) *Only for the calculation of risk value in terms of qualitative assessment, category "E" is subdivided into "E1 - Poor coordination" and "E2 - Absence of coordination", which imply a different final risk value.* Example 1: Sector A coordinated the transfer of aircraft 1 to Sector B at FL 380. The aircraft was actually at FL 400. 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 Example 2: The Sector A controller received coordination from Aircraft 1 regarding waypoint X at FL 370 in Sector B. At 05:04, Aircraft 1 was at waypoint X at FL 350 and applied for FL 370.
N	Lateral Deviations

- **Article 5.7.2 is attached**

5.7.2 Events that, in accordance with 3.4.1, are classified as medium or high risk in the SMS assessment must be mitigated by the States that suffered the event and the result of this work must be presented by each FIR at the annual GTE meeting.

- **Appendix E LHD form CARSAMMA F4 is modified**



Si va a imprimir este informe, ponga aqui su logo de FIR

E

La información contenida en este formulario es confidencial y solo será usada con el propósito estadistico de analizar la seguridad.

CARSAMMA

CARSAMMA FORMULÁRIO F4

GRAN DESVIACIÓN DE ALTITUD

Informe a la CARSAMMA de una desviación de altitud de 300 pies o más, incluyendo aquellas debido sucesos TCAS, de Turbulencia y Contingencia.

Fecha de Hoy: 06/02/21	2. Agencia de Notificación / FIR: MUFH		
DETALLES DE LA DESVIACIÓN			
Nombre del Operador: 0	4. Distintivo de Llamada: HI955	5. Tipo de Aeronave: C56X	6. ¿Mode C o ADS Visualizado? X Sí. Cual Nivel?: 340 / No
	Registro de la Aeronave: 0		
Fecha de la Ocurrencia: 09/01/21	8. Hora UTC: 18:48	9. Ubicación de la Ocurrencia (lat/long o Punto de referencia): DEPSI	10. Condición Meteorologica: X IMC / VMC
1. Ruta autorizada del vuelo:	UA890 - MDJB/MUHA UA890 UCU J3 APRIK KAVUL4B		
12. Nivel de Vuelo Autorizado: 430	13. Tiempo estimado transcurrido en el nivel de vuelo incorrecto (segundos): N/A	14. Desviación Observada (+/- pies): 9.000	
15. Otro Transito: (si hubierre) (vea menu)	Distintivo de Llamada: 0 / Tipo de ACFT: 0 / Registro de la acft: 0 / Ruta: 0 / FL (Nivel de Vuelo): 1 / Posición: 0 / Distancia entre las acfts: 0		
16. Causa de la Desviación: (Título breve)(vea menu)	Error de coordinación entre unidades ATC de nivel de vuelo que no se ajustó a los parámetros acordados.		
Ejemplos: Error operacional en el ciclo de coordenaciones ATC, Turbulencia, Clima, Falla en el Equipo, etc)			
DESPUÉS DE RESTAURADA LA DESVIACIÓN			
17. Nivel de Vuelo Final Observado/Reportado *: 340	Marque el cuadro apropiado:		20. Cumplia este FL con las Tablas de Niveles de Crucero del Anexo 2 de la OACI? X Si / No
Favor indicar la Fuente de la Información: X Modo C / Piloto / ADS / Otros	18. FL arriba del nivel autorizado: X		
	19. FL debajo del nivel autorizado:		

21. Descripción Detallada de la Desviación, incluir factores contribuyentes al evento y factor humano si corresponde
(Por favor, de su evaluación de la derrota volada por la aeronave y la causa de la desviación.)
recibe el estimado del vuelo HI955 a nivel 430 , sin embargo la aeronave sobrevuela la posición DEPSI a nivel 340.

22. Comentários de la validacion.

23. Comentários de la Tripulación (de haberlos)

CARSAMMA - Agencia de Monitoreo para el Caribe y Sudamérica
PRAÇA SENADOR SALGADO FILHO, S/N - CENTRO
20021-370 - RIO DE JANEIRO - RJ
Telefone: (+55 21) 2101-6358 (Jefe) - 2101-6868 (Adjunto) - 2101-6867 (Salon OPR)
E-Mail: carsamma@cgna.gov.br

ANNOTATION TO HELP FILLING OUT FORM F4

21. MAKE A DETAILED DESCRIPTION OF THE DEVIATION, INCLUDING THE HUMAN OR ADDITIONAL FACTORS THAT ARE A CONTRIBUTING FACTOR TO THE EVENT
22. MAKE A DESCRIPTION OF THE PROCEDURE LIKE THIS: CORRECTLY VALIDATED, FIR SELDOM RESPONDS, TELECONFERENCE REQUIRED

- **Form F4 Multiple Reports is attached**

NOTES TO HELP FILL OUT THE MULTIPLE REPORT FORM (THE CMA F4 CARSAMMA, FROM 1 TO 20, WILL BE FILLED IN AUTOMATICALLY)

Columns specification of the items with the columns:
A FILL IN THE SEQUENTIAL NUMBER TO DESCRIBE THE REPORTS, BY DATE AND TIME.

B FILL IN THE 4 (FOUR) ICAO IDENTIFICATION LETTERS OF THE FIR OR THE OCCURRENCY NOTIFICATION AGENCY.
C FILL IN THE 4 (FOUR) LETTERS OF THE ICAO IDENTIFICATION OF THE FIR OR THE NAME OF THE FIR THAT IS BEING REPORTED OR WHO COMMITS THE FAULT.
D INSERT THE DATE OF THE OCCURRENCE (DD/MM/YY).
E INSTALL THE DATE OF COMPLETION OF THIS FORM.
F FILL IN THE 3 LETTERS OF THE ICAO IDENTIFICATION OF THE AIRCRAFT OPERATOR OR, IN THE CASE OF GENERAL AVIATION, PUT THE NAME OF THE OPERATOR/OWNER.
G FILL IN WITH THE CALL SIGN.
H FILL OUT WITH THE AIRCRAFT RECORD.
I FILL IN WITH THE ICAO DESIGNATIVE, CONTAINED IN ICAO DOC 8643, FOR EXAMPLE, FOR AIRBUS A320-211, FILL IN A322; FOR BOEING B747-438, FILL B744.
J SET THE TIME OF THE OCCURRENCE (HH:MM).
K FILL IN WITH THE LOCATION OF THE OCCURRENCE (FIXED, LAT/LONG OR THE RADIAL WITH NAUTICAL MILES FROM A POINT).
L POSITION FOR RISK. LEAVE BLANK WILL BE FILLED BY THE CARSAMMA.
M STATE THE METEOROLOGICAL CONDITIONS WHEN THE OCCURRENCE OCCURRED. (BMI or VMC)
N PUT THE NAME OF THE AIRWAY THAT CONTAINS THE REPORTED POINT IN COLUMN "J". (IF THE RETURN IS DIRECT OR RANDOM, ENTER "DCT").
O FILL IN THE ORIGIN/DESTINATION OF THE FLIGHT USING THE 4 (FOUR) ICAO IDENTIFICATION LETTERS OF THE AERODROME. (CASE COLUMN "M" DCT, AUTZ ROUTE)
P MODE C or ADS DISPLAYED SET "YES" or "NO".
Q FILL WITH THE AUTHORIZED FLIGHT LEVEL ON THE ROUTE.
S SET THE FINAL FLIGHT LEVEL, OBSERVED/REPORTED,
T ENTER THE LARGEST OBSERVED DETECTION (IN FEET). USE "+" IF IT IS FOR UP AND "-" IF IT IS FOR DOWN. (CASE DETOUR UPWARDS
SIGNAL "+" MAY BE OMITTED)
U SET THE ESTIMATED "IN SECONDS" OF THE TIME FLOWED AT THE INCORRECT LEVEL. (IF NOT MEASURED, ENTER "N/A")
V GTE DURATION. LEAVE BLANK WILL BE FILLED BY THE CARSAMMA.
W SET THE SOURCE OF INFORMATION OF THE OBSERVED/REPORTED FINAL LEVEL (MODE C, PILOT, ADS or OTHER).
X TIME (S), TIME (Op), N (S), N (Op). LEAVE BLANK WILL BE FILLED BY THE CARSAMMA
Y ENTER THE FAULT/ERROR CODE, ACCORDING TO THE TABLE BELOW. (IT'S NOT MANDATORY).

- **Appendix H is modified – FLOW CHART OF THE REPORT PROCESS AND VALIDATION OF LHD REPORT**

- **<u>Appendix K modified, items F, H, M – FUNCTIONAL DUTIES OF THE CONTACT POINTS ACCREDITED TO THE CARSAMMA</u>**

The functional duties of the FIR Contact Points are:

A. Collect reported reports on LHD events.
B. Collect and protect data on LHD events.
C. Conduct investigation of LHD events.
D. Exchange information about LHD events with the FIRs involved, as well as with the

the ATCO(s) and pilots involved, where applicable.
E. Prepare form F4.
F. Send Form F4 to CARSAMMA through the channels and within the established deadline.
G. Send Form F5 to CARSAMMA through the channels and within the established deadline.
H. Participate in teleconferences and validate LHD events.
I. Collect data on aircraft movements in RVSM airspace.
J. Purify data on aircraft movements and prepare Form F0.
K. Send Form F0 to CARSAMMA through the channels and within the established deadline.
L. Participate in the annual meetings of the Working and Scrutiny Group.
M. Participate in training actions or meetings on the LHD topic that ICAO calls for.
N. Interact with the Equipment PoC, in accordance with the internal procedures of each State, in every situation that warrants or is required.
O. Collaborate in the preparation of study notes (NE) that your State presents to the GTE on LHD with a risk value greater than 20.

1.1 Functional duties of the FIR contact points.

F. Send Form F4 to CARSAMMA once the validation procedure is completed, through the channels and within the established deadline.

H. Participate in teleconferences and present the causes, contributing factors and mitigation actions/recommendations when events in which the SMS risk value is medium or high.

M. Present a working paper at the GTE annual meeting that describes the causes, contributing factors and mitigation actions/recommendations when the CRM value of the FIR is above the TLS according to the working paper presented by CARSAMMA

— END —