INTRODUCTION TO CARSAMMA

Inputs and outputs used in the Caribbean and South American Monitoring Agency workflow
INDEX

- Regulation
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- Expected Agency Products
  - Inputs required for production
- Meetings
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REGULATION

- Doc 4444 - OACI
- Doc 9574 - OACI
- Doc 9937 - OACI
- Doc 9859 - OACI (SMS)

- Guidance Manual for CARSAMMA Accredited Points of Contact (PoC)
- Reference Guide for LHD
2001 - Brazil commits to take over CARSAMMA during GREPECAS10 in Manaus

- Initially located at S. J. dos Campos until 2006
- Since 2007 based in RIO
CREATION OF CARSAMMA

USED FORMS

- F0 – Collection of Air Movement (sent by the State Air Navigation Service Providers)
- F2 – RVSM approval (sent by the Civil Aviation Authorities of the States)
- F3 – RVSM cancellation (sent by the Civil Aviation Authorities of the States)
- F4 – RVSM Large Height Deviation Report (sent by State Air Navigation Service Providers)
<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>TASKS</th>
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</table>
| YEARLY    | • Vertical Risk Calculation - CRM  
             • Operational Safety Calculation - SG SO  
             • Presentation of WP and IP at International Meetings |
| MONTHLY   | • Reports presenting the products delivered to the ICAO Offices (Mexico and Lima)  
             • Report on Altimetry System Error Results – ASE  
             • Audit of Aircraft using RVSM airspace WITHOUT APPROVAL |
| BIWEEKLY  | • Participation in the Teleconferences with PoC of the States of the Regions for analysis and validation of LHD  
             • Check the validity of F2 contained in DB CARSAMMA, and remove the losers records |
| WEEKLY    | • Update of the RVSM information @ CARSAMMA website  
             • Update of the validated LHD information @ CARSAMMA website |
| DAILY     | • Read, send, reply or receipt emails to users  
             • Printing, analyzing, typing and archiving received forms  
             • Request for clarification about some data of incoming emails  
             • Search for monitoring flights and results issued for sending ASE Formal Letter  
             • Calculate altimetry errors, issue and send ASE Formal Letter |
**Risk Calculation - CRM**

After each biweekly conference call, relate the validated LHD

Annually receive the traffic movements of our 34 FIR, and carry out the clearance of the movements files, using the following software:

- FlightStar (Jeppesen)
- Calculation of CRM parameters (IEAv)
- CRM Risk Calculation (FAA - AAMA)

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**Operational Safety Analysis**

After each biweekly conference call, relate the validated LHD

Introduce validated LHD in the formula developed by CARSAMMA for the analysis of Operational Safety of our Regions, already approved in GTE, and used over 05 years with excellent results
WE OBSERVED A LOSS OF STANDARD SEPARATION OVER TADPO INTERSECTION BETWEEN RPA4434, AT FL300 AND TAI311, ASSIGNED FL290, WHERE SEPARATION WAS 1.31 Nm and 800 ft AT 23:07:45, THEN AT 23:07:57, SEPARATION WAS 3.99 Nm and 700 ft AS TAI311 CONTINUED TO CLimb ABOVE THEIR ASSIGNED ALTITUDE. WE RECEIVED INFORMATION FROM HABANA FIR INDICATING THEIR CONTROLLER ISSUED CLimb TO TAI311 FROM FL290 TO FL300 WITHOUT COORDINATING WITH THE APPROPRIATE KZMA CONTROLLER (TAI311 WAS STILL IN KZMA AIRSPACE).

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Safety Management System
LHD

TAI311 approaching FL290 and both aircraft less than 1 minute from the position, TAI311 is transferred by Miami to Habana frequency.

The TAI311 aircraft was transferred to the frequency of ACC Havana and our controller authorized it to ascend without realizing that it had not yet crossed with the aircraft RPA4434, and converging towards the same position (TADPO).

The controller, without having crossed both aircraft, authorizes TAI311 to ascend to FL330, so that at the time of crossing of both aircraft, the vertical separation that should be 1000 feet, was 800 feet.
Working/Information Papers

There are two meetings during the year:

- RMA Meeting (May)
  Presentation of the CAR / SAM CRM Audit and Calculation, discussion of the best practices employed by the 13 RMAs

- GTE (November)
  Presentation of the CAR / SAM Operational Safety Analysis, Hotpoints, mitigation measures, and best practices of relevant FIR

Lectures Cycle of LHD

- They occur whenever CARSAMMA feels the need for technical updating of the PoC and ATCOs of the Regional, due to the poor quality analyzes and codifications of the LHDs received by the Agency
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