



**CAR/SAM Planning and Implementation Regional Group (GREPECAS)
Nineteenth Scrutiny Working Group Meeting
Barranquilla, Colombia, 18 to 22 November 2019**

Agenda Item 3: Review of the results of the analysis of large height deviations (LHDs)

f) GTE recommendations

MEASUREMENT AND IMPROVEMENT OF SAFETY PERFORMANCE IN CAR/SAM RVSM AIRSPACE

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This working paper presents an analysis of risk behaviour over the last five-year period (2014-2018), including the number of reported and validated LHDs, as well as other parameters used for calculating safety risk in CAR/SAM RVSM airspace.

This WP supplements GTE/19-WP/03, presented by the Secretariat, and seeks to obtain agreement on annual improvement of risk performance in the CAR/SAM Regions.

Action:	The Meeting is invited to review the information contained in this working paper and agree on a percentage of annual safety risk improvement to be achieved in CAR/SAM RVSM airspace, as well as the other actions suggested in section 3 of this paper.
<i>Strategic objectives:</i>	<ul style="list-style-type: none">• Safety
<i>References:</i>	<ul style="list-style-type: none">• GTE report - 2014, 2015, 2016, 2017• GTE 19-WP/06• Doc 9859• Annex 19

1. Background

1.1. In Doc 9859, the safety performance target is defined as the State or service provider's planned or intended target for a safety performance indicator over a given period, aligned with the safety objectives.

1.2. GTE reports show an annual reduction in the number of LHDs received and validated by CARSAMMA. Although this trend has remained the same during the last triennium (2016-2018), the behaviour of the level of risk has been the opposite, showing an upward trend during the same period.

1.3. The 2018 level of risk that CARSAMMA will present to the GTE for validation increased by 6.45E-01 (6.45×10^{-1}), with respect to 2017. Although the CAR/SAM Regions are below the TLS, the Secretariat considers unacceptable the upward trend of the level of risk, as well as the fact that no safety performance target has been defined for CAR/SAM RVSM airspace.

1.4. Another important aspect to consider is that, although the GTE established a safety analysis to improve risk performance in RVSM airspace, it has not been effective, since it has not been able to modify the trend. Therefore, the reasons for this increase in risk must be analysed.

2. Analysis

2.1. It should be noted that, by improving the identification mechanism, the number of LHDs received and validated every year by CARSAMMA has dropped, as shown in Fig. 1.

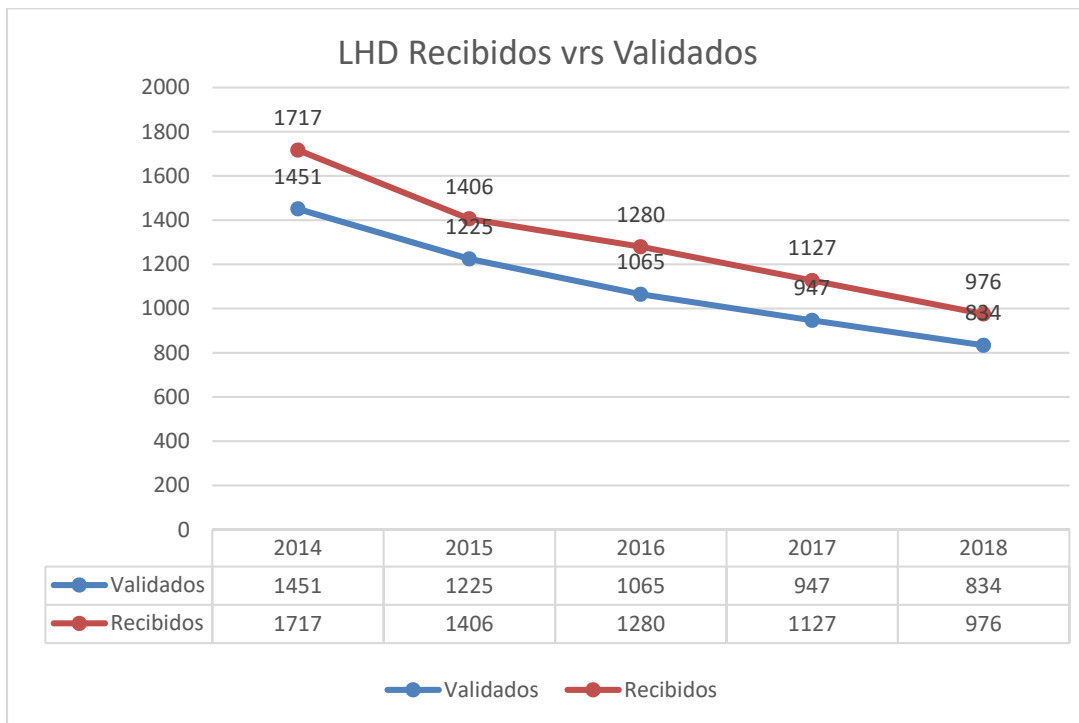


Fig. 1

2.2. However, even with the significant 13% average annual reduction in the number of reported LHDs over the last four years, the level of risk in CAR/SAM RVSM airspace had the opposite behaviour, as shown in Fig. 2.

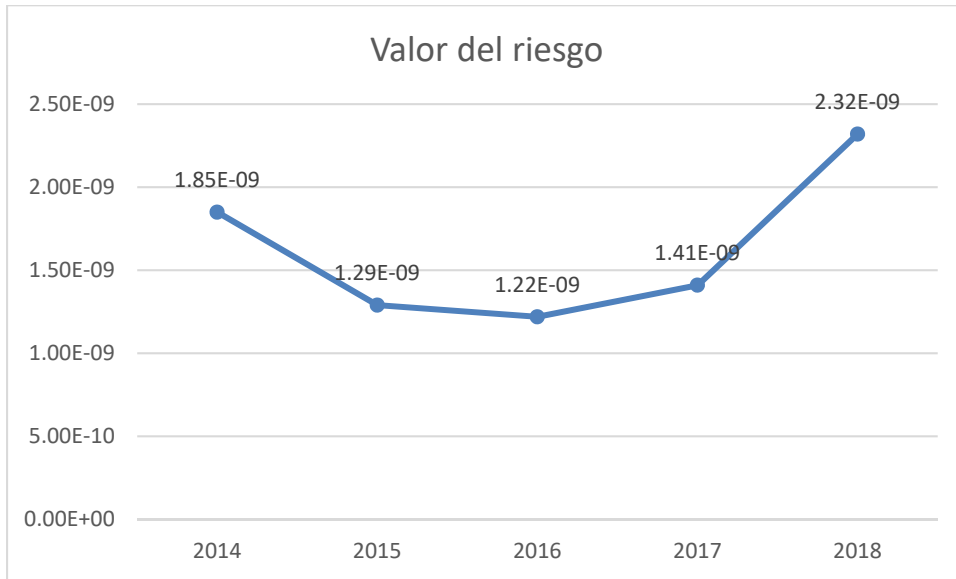


Fig. 2

2.3. In preparing this WP, significant variations were observed in the flight hour value for calculating risk in the CAR/SAM Regions. The causes of such variations need to be analysed to make sure that the risk value measurement is consistent over the years, as shown in Fig. 3.

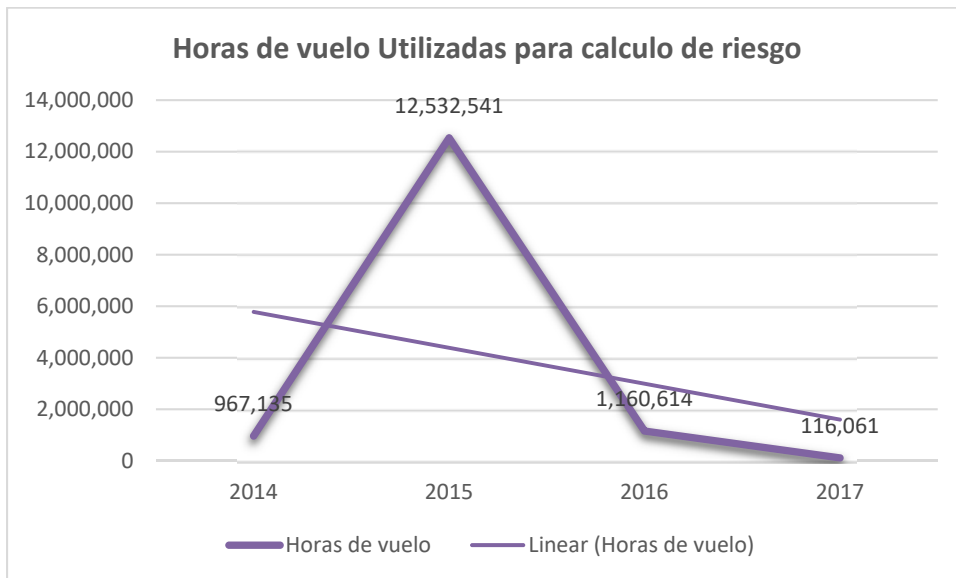


Fig. 3

2.4. The GTE must take specific measures, such as those recommended in GTE 19-WP/6, to improve safety performance in RVSM airspace, agreeing on safety performance targets (reduction of the level of risk in RVSM airspace).

2.5. The agreed targets should be submitted to GREPECAS for approval, and they should be circulated among all stakeholders, including the posting of a CAR/SAM RVSM airspace safety performance indicator on ICAO Office websites or other safety information exchange platform, such as ISTARs or SIMS.

2.6. The annual flight hour value received, which is used for calculating the CAR/SAM RVSM airspace risk value, must be reviewed together with CARSAMMA to ensure consistency in annual calculations, and also identify alternative data sources to verify its accuracy.

2.7. If the significant variation in the number of annual flight hours is due to non-reporting States and International Organisations, those States and international organisations must be individually identified so that ICAO Offices may take appropriate action.

3. Suggested action

3.1. The Meeting is invited to:

- a) Take note of the information presented in this working paper;
- b) agree on safety performance targets for CAR/SAM RVSM airspace, to be presented to GREPECAS;
- c) review with CARSAMMA the annual flight hour value used for calculating risk; and
- d) agree to post an indicator on safety information exchange websites in order to show safety performance in CAR/SAM RVSM airspace.