



Agenda Item 1: Review of conclusions and recommendations of previous CARSAMMA and Scrutiny Group meetings

e) Qualitative LHD safety assessment methodology (SGSO/SMS)

PROPOSAL OF MODIFICATION OF THE REFERENCE GUIDE OF THE SCRUTINY WORKING GROUP (GTE)

(Presented by Peru)

SUMMARY	
This working paper presents a proposal to modify the Reference Guide of the Scrutiny Working Group (GTE), in terms of the “ <i>buffer zone</i> ” or “ <i>buffer time</i> ”.	
References:	
- GTE/7 final report	
- GTE/14 final report	
ICAO strategic objectives:	A - Safety

1. Background

1.1 The GTE/7 meeting held in Lima, Peru, on 16-19 March 2009, agreed to establish a minimum coordination time of 3 minutes, which should be taken into account when assessing Large Height Deviations (LHDs) involving operational errors between adjacent ACC units.

1.2 This was agreed because some members of the Group had noted that, even if the accepting FIR had previously received the transfer of the aircraft that was to cross the FIR boundary or transfer of control point (TCP), there was a period of time in which the controller was no longer capable of resolving the event before the error occurred. Therefore, it agreed to establish a “*buffer time*” or “*buffer zone*” to account for the controller’s reaction time. In other words, if the estimate to the TCP was provided to the adjacent FIR further in advance than the buffer time ($> 3\text{min}$), this was NOT considered to be an LHD. However, if the estimate was provided to the adjacent FIR with greater or equal notice than the buffer time ($=<3\text{min}$), then this WAS an LHD. The agreed “*buffer*” was 3 minutes, which should be used as a reference, and each case should be considered individually.

1.3 The GTE/14 meeting held in Mexico City, Mexico, on 1-5 December 2014, modified this time parameter from 3 minutes to 5 minutes. This decision was based on the LHD reports of the last 3 years, in which it was noted that many reports had been considered as LHDs because the aircraft had crossed the TCP 4 minutes before the estimated time of transfer, that is, a unit transfers an estimate for a given hour and the aircraft crosses the TCP 4 or more minutes before the time previously coordinated. For this modification, consideration was also given to the letters of operational agreement between adjacent ACC units, all of which stipulate that TCP revisions are required provided the variation exceeds 3 minutes.

2. Discussion

2.1 The “**buffer time**” or “**buffer zone**” refers strictly to the time that the controller needs to take action with respect to unknown traffic or an unforeseen situation, such as lack of transfer or revision of the flight level, respectively.

2.2 Regarding paragraph 2.1, it should be noted that a controller does not take 5 minutes or 40 NM to resolve an unforeseen situation or undesired condition. Therefore, the “**buffer time**” or “**buffer zone**” must be reduced to 3 minutes or 20 NM, as established by the GTE/7 meeting (see **Appendix A**).

2.3 Doc 4444 (par. 10.1.2.4.1) states that the transfer of air-ground communications of an aircraft from the transferring (ACC) to the accepting ACC shall be made five minutes before the time at which the aircraft is estimated to reach the common control area boundary, unless otherwise agreed.

2.4 This change of frequency -but not of responsibility- of 5 minutes before the aircraft enters the next FIR is a recommendation to the ANSPs with a view to reducing and mitigating the risk resulting from E1 and E2 errors, since the pilots would be in communication with the next FIR before entering the “**buffer zone**” (3 minutes), thus annulling the LHD.

2.5 Another measure to be adopted by the States to mitigate these errors consists of continuous revisions to ensure precision in transfers.

3. Suggested action

3.1 The meeting is invited to take note of the information contained in this working paper.

3.2 Modify the time agreed as “**buffer time**” or “**buffer zone**”, from 5 minutes or 40 NM to 3 minutes or 20 NM.

3.3 Recommend any other actions it may deem appropriate.

APPENDIX A

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