



Agenda Item 5: Collision risk assessment and LHD

- c) Mitigation of LHD: ATS incidents analysis, Human factors and AIDC. ANSPs programs.**

List of LHD Mitigation Actions

(Prepared by SATMA)

SUMMARY
This information paper presents a list of mitigation actions recommended by SATMA on the scope of SAT meetings since RVSM was implemented.
Reference
<ul style="list-style-type: none"> • SAT Meetings Reports

1. Coordination procedures between adjacent ACC's to prevent LHD's
“Implementation of additional ATC unit to unit coordination procedures to prevent LHD's”
a) Transferring ACC
<i>In cases where the position of the aircraft is <u>10 minutes</u> or less to the boundary with the receiving ACC, except imperative previous coordination and emergencies, the transferring ACC will never modify the cleared flight level and Mach number of the aircraft different from the ones communicated to the next ACC on the previous traffic estimate.</i>
b) Receiving ACC
<i>In cases where the position of the aircraft is <u>5 minutes</u> or less from the boundary with the transferring ACC, except imperative previous coordination and emergencies, the receiving ACC will never modify the cleared flight level and Mach number of the aircraft different from the ones communicated by the transferring ACC on the previous traffic estimate</i>
Agreed Conclusion: Common additional procedures to prevent LHDs
That, Having expressed its concern about the LHDs due to operational errors in ATC unit to unit coordination implores ACCs to apply the coordination procedures for flight level changes near the common boundaries reflected on their respective LoAs.

OLDI implementation
The Meeting is invited to analyze and discuss ways implement OLDI services to prevent collaterals miss coordination.
Agreed Conclusion: Implementation of AIDC /OLDI in SAT
<i>That SAT States be encouraged to implement AIDC messages interchange where possible, as technical action to reduce human errors in coordination operations between neighboring ACCs</i>

>>

SAT15/WP LHD monitoring Team
The paper propose the creation of LHD monitoring Team
Conclusion SAT14TF1/08: LHD Monitoring
That, <ul style="list-style-type: none"> a) The LHD focal point be identified and advised to SATMA by 1st July 2009 b) The LHD Monitoring Team will commence its activities by 1st July 2009 c) The LHD Monitoring Team review and endorse The Monitoring Terms Of Reference as contained in Appendix G

<<

Operational Procedure
<i>That Brazil, Cape Verde, Senegal and Spain will implement on AIRAC date 12 January 2011 the operational procedure based on ADS-C/CPDLC reflected in Appendix F (Operational procedures to prevent LHD's based on ADS-C CPDLC or only ADS-C).</i>

2.1. Cases where both collateral ACC's are ADS-C & CPDLC equipped.

2.1.1 The transferring ACC shall send to the aircraft the CPDLC message (UM160) NEXT DATA AUTHORITY (facility designator) at least 1 minute before doing the next step.

2.1.2. From 15 to 45 minutes before the common boundary, the transferring ACC will initiate the connection transfer procedure sending a FN_CAD message that will instruct the aircraft system to initiate an AFN Log- on to the next ACC (still full connection with the transferring ACC)

2.1.3. If 10 minutes before reaching the common boundary point the automatic Log- on with the receiving ACC has not been successful, the pilot shall start a manual Log- on

2.1.4. Once the Log- on is accepted by the receiving ACC, the receiving controller will establish the CPDLC connection which will remain inactive until the CPDLC END SERVICE message is sent from the transferring ACC and received by the aircraft.

2.1.5. Immediately after the reception of the Log- on, the receiving ACC will establish, at least, a 15 min periodic contract and a way point change event contract. (Demand contracts will also be used if it is considered necessary)

2.1.6. The transferring ACC will send the CPDLC END SERVICE message 5 minutes before the common boundary point.

2.1.7. The transferring ACC will not terminate the ADS- C connection before the aircraft has over flown the boundary point.

2.2.- Case where the transferring ACC only ADS-C equipped and receiving ACC is ADS-C &CPDLC equipped

2.2.1. From 15 to 45 minutes before the common boundary the transferring ACC shall initiate the connection transfer procedure sending a FN_CAD message that will instruct the aircraft system to initiate an AFN Log- on to the next ACC (still ADS-C connection with the transferring ACC).

2.2.2. If 10 minutes before reaching the common boundary point the automatic Log- on with the receiving ACC has not been successful, the pilot shall start a manual Log- on.

2.2.3. Once the Log- on is accepted by the receiving ACC, the receiving controller can establish the CPDLC connection which will be active on the receiving ACC. The receiving ACC will never start the CPDLC message interchange (attend new requests or provide clearances) with the aircraft until reaching the common boundary point.

2.2.4. Immediately after the reception of the Log- on, the receiving ACC will establish, at least, a 15 min periodic contract and a waypoint change event contract. (Demand contracts will also be used if it is considered necessary).

It is essential that ICAO/SAT group require from involved states mandatory actions, so the EURSAM Corridor can meet the TLS required from CRM model.