

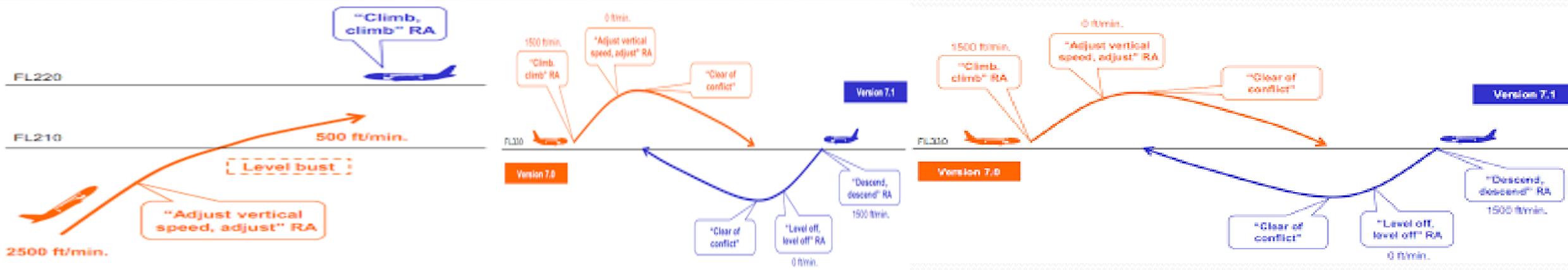


# MIDRMA BOARD/ 19 IMPROVMENT OF LHD

Civil Aviation & Met Authority

# Introduction

- This presentation highlights improvement of LHD in light of The ESAF/MID Coordination Meeting 2023 and Midrma board's 18 mitigation measures that have significantly alleviated LHD.
- To address some challenges in light of compliance with NOTAM A0041, which may result in causing LHD.
- The main goal is to enhance coordination and fully eliminate LHD.



# The main causes of Large Height Deviation occurrences

*The main causes of Large Height Deviation occurrences identified as follows:*

- d) The response to airborne collision avoidance system (ACAS) resolution advisories;
- e) Not following an ATC clearance, resulting in flight at an incorrect flight level;
- f) An error in issuing an ATC clearance, resulting in flight at an incorrect flight level;
- **g) Coordination errors between adjacent ATC units in the transfer of control responsibility for an aircraft, resulting in flight at an incorrect flight level.** (This is what this presentation is concerned with).

# MIDRMA Board/18 Mitigation Measures

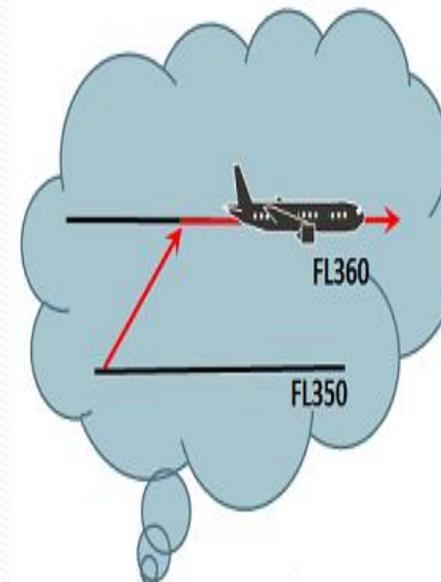
The meeting agreed to the following mitigation measures:

- a) MIDRMA to open a safety protocol between Sana'a and Mogadishu, in coordination with the AFI RMA (ARMA), ICAO MID and ESAF Regional Offices.
- b) MIDRMA to provide necessary training and awareness to Yemen.
- c) States are urged to comply with the Minimum Monitoring Requirements (MMR).
- d) MIDRMA to improve the format and content of the Monthly Bulletin containing the List of Non-RVSM approved Aircraft; in particular by adding the information related to the State of Registry and Operators, as well as to add a warning on the types of aircraft with a high number of violations observed.
- e) The results of the investigation related to the IL76 incident should be shared and used as lesson learned to avoid similar cases being repeated in the future.
- f) MIDRMA to identify the areas where possible intruders might operate within the MID RVSM Airspace (including ACFT types, FIRs, interface, etc.).

# Some Mitigation Measures of ESAF Coordination Meeting

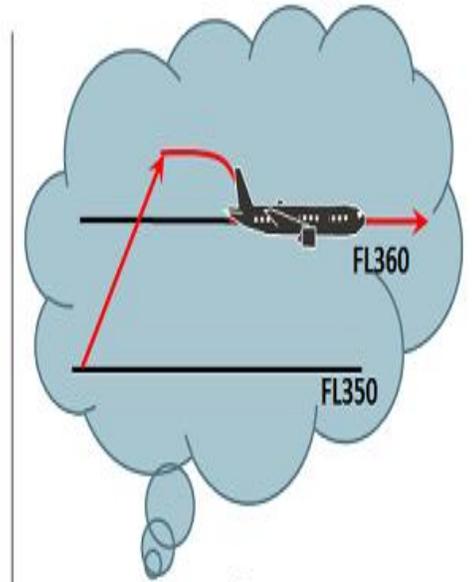
- Enhance the online LHD reporting systems.
- Enhance GND-GND communication equipment between Sana'a ACC / Aden APP and adjacent units.
- Enhance operational Letters of Agreement.
- Operational Arrangements.

Overshoot or undershoot with deviation > 300 feet



**Expectation**

An aircraft climbs to FL360



**Reality**

Overshoot with deviation from the expected FL greater than 300 feet

- ESAF/MID Coordination Meeting on the Horn of Africa Interface Area (Cairo, Egypt, 31 January – 2 February 2023) and Midrama board \18 meeting mitigation measures have , to a far extent, resulted in alleviating LHD, we are sure because the continuous efforts, these problems will be completely eliminated.



# The following table shows improvement of LHD particularly with Mogadishu

Year 2023	Addis Ababa	Asmara	Mogadishu	Djibouti	Jeddah	Mumbai	Muscat	Total
JAN.	1	0	0	2	1	1	9	14
FEB.	2	1	0	0	3	4	3	13
MAR.	0	1	0	4	3	0	16	24
APR.	2	2	0	2	1	3	2	12
MAY.	2	2	0	2	1	0	0	7
JUN.	2	5	0	2	5	1	0	15
JUL.	3	10	0	2	6	4	0	25
AUG.	4	3	0	5	3	3	0	18
SEP.	3	0	0	1	2	1	1	8
Total report	19	24	0	20	25	17	31	136

# *Some challenges*

- NOTAM A0041 renewed by A0042: ALL AIRCRAFTS OPERATION WITH AN AREA OF 100NM AROUND ADEN AERODROME SHALL CONTACT ADEN APPROACH ON VHF119.7 OR ADEN TOWER ON VHF118.7 FOR TRAFFIC INFORMATION.
- The main problem is that occasionally no estimates passed to Aden Approach unit with respect to western traffic proceeding to Aden and the pilot established direct contact with Aden Approach unit without prior coordination and sometimes not complying with NOTAM A0041.
- According to the reports that air navigation department received from the Aden Airport approach unit, it indicated that there was a problem in coordinating the traffic operating west of Aden, which are communicating with the Aden approach unit without prior coordination.
- This was because of the non-receipt of the timely estimate messages and reports.

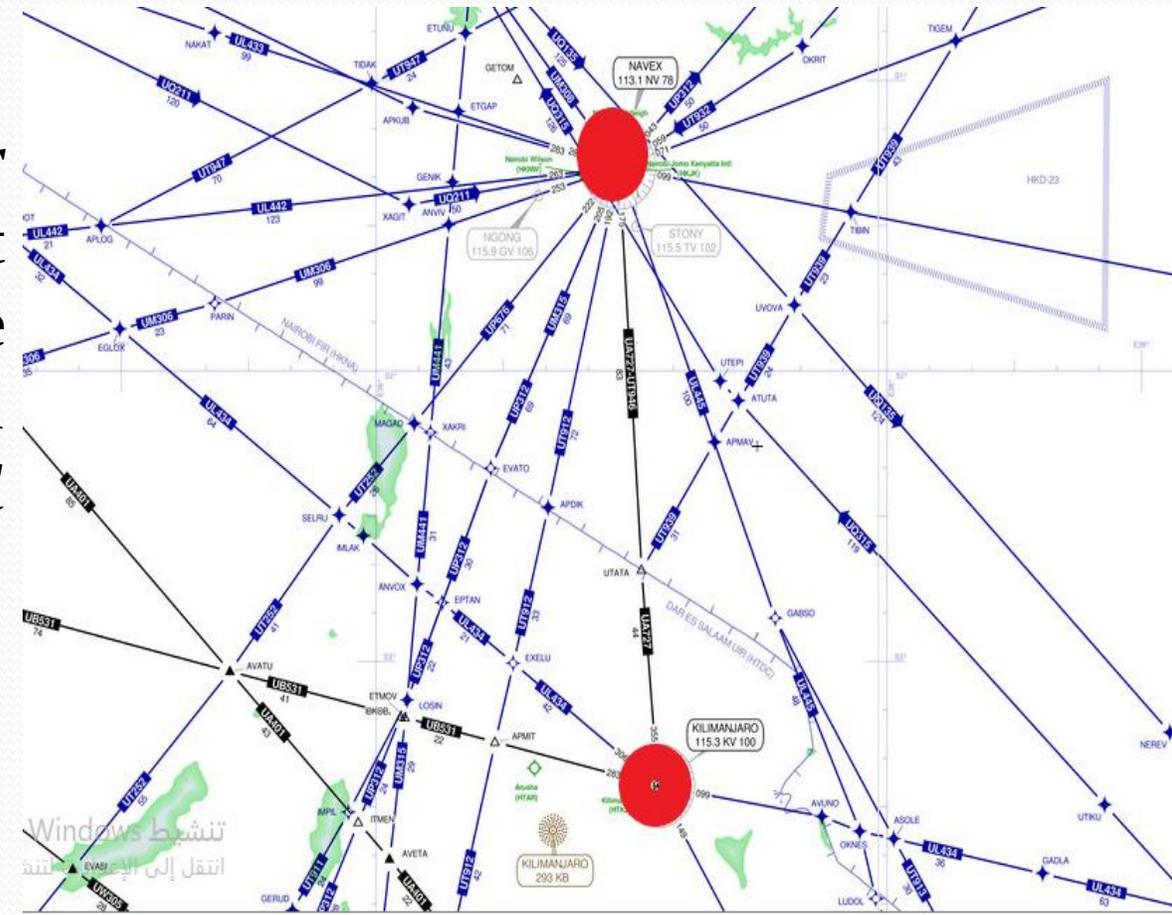


# Elimination of LHD

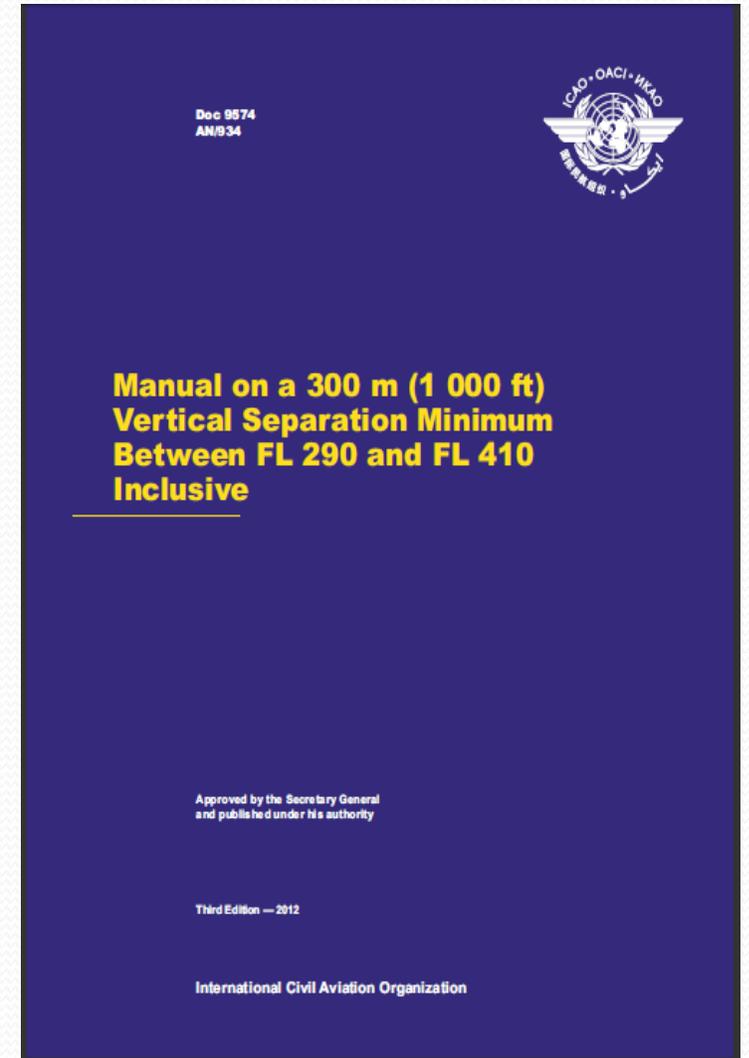
- In light of mitigations/handling procedures highlighted in Meetings of ESAF/MID Coordination Meeting on the Horn of Africa Interface Area (Cairo, Egypt, 31 January – 2 February 2023)
- Considering the NOTAM (A0042) which states “all AIRCRAFTS OPERATION WITH AN AREA OF 100NM AROUND ADEN AERODROME SHALL CONTACT ADEN APPROACH ON VHF119.7 OR ADEN TOWER ON VHF118.7 FOR TRAFFIC INFORMATION”.
- Referring to ESAF outcome No. 4 to Enhance GND-GND communication between Djibouti and Aden TMAs; (TORBA).
- In addition to the operation of OYMK, which will operate traffic to Aden from the west as well. (Parent ACCs Sana'a and Addis ).
- Therefore, hot line along with coordination procedures for traffic between Aden APP. And Djibouti APP via TORBA will facilitate in eliminating LHD in the western area and will ensure timely transmission of FPL, DEP ,ARR. and EST between the concerned units.

# Successful Experiences

Kenya and Tanzania have allowed their two ATSU's namely Nairobi APP. unit and Kilimanjaro APP. Unit to coordinate directly under the umbrella of Nairobi ACC and Dar es Salaam ACC respectively.



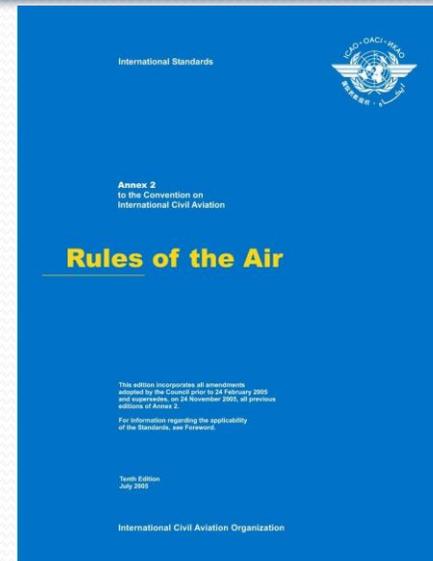
- According to ICAO Doc 9574 -The ATC authority shall report any deviation from cleared levels equal to or greater than 90 m (300 ft), for any reason, regardless of whether the deviation results in an incident or not.



# Rules & regulation References

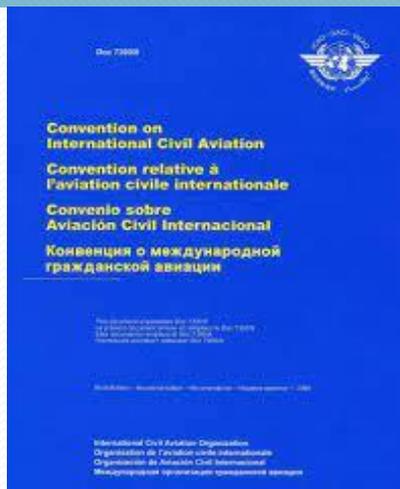
## Annex 2 ROA 2.1 Territorial application of the rules of the air

- 2.1.1 The rules of the air shall apply to aircraft bearing the nationality and registration marks of a Contracting State, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.



# Doc 7300 // Article 12 / Rules of the air

- Each contracting State undertakes to adopt measures to ensure that every aircraft flying over or maneuvering within its territory and that every aircraft carrying its nationality mark, wherever such aircraft may be, shall comply with the rules and regulations relating to the flight and maneuver of aircraft there in force.



# Annex 11 ATS

## Applicability

- The Standards and Recommended Practices in Annex 11 apply in those parts of the airspace under the jurisdiction of a Contracting State wherein air traffic services are provided and also wherever a Contracting State accepts the responsibility of providing air traffic services over the high seas or in airspace of undetermined sovereignty. A Contracting State having accepted the responsibility to provide air traffic services in such portions of airspace shall thereafter arrange for the services to be established and provided in accordance with the provisions of this Annex.





Thank  
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