

FINAL INVESTIGATION REPORT



SERIOUS INCIDENT OF TCAS-RA REPORTED BY
M/S AIR BLUE, FLIGHT NO. ABQ201, A-320, REG.
NO. AP-EDA (ISLAMABAD - KARACHI)
ON 20TH APRIL, 2017

FINAL REPORT

INVESTIGATION INTO THE SERIOUS INCIDENT OF TCAS-RA REPORTED BY M/S AIR BLUE, FLIGHT NO. ABQ201, A-320, REG. NO. AP-EDA (ISLAMABAD TO KARACHI) ON 20TH APRIL, 2017

Synopsis

On 20th April, 2017 M/s Air Blue Flight No. ABQ201, A-320, Reg. No. AP-EDA was operating from Islamabad to Karachi climbing FL250, reported TCAS-RA due to M/s Pakistan Aviator Flight No. NST239, G-150, Reg. No. AP-MMM operating from Sukkur to Islamabad, descending from FL350 to FL260.

The serious incident was reported in "Air Traffic Incident Report" submitted by Captain of ABQ201 (**Appendix 'A'**). Memorandum was issued vide letter No. HQCAA/1904/40/108/SIB/312 dated 15th May, 2017 (**Appendix 'B'**).

All available evidences were analyzed at SIB. Significant findings and recommendation of SIB are as under:-

1. FACTUAL INFORMATION

- 1.1 **History of Flights.** M/s Air Blue flight No. ABQ201, A-320, Reg. No. AP-EDA was operating from Islamabad to Karachi climbing FL250 on route J121/J142 (INDEK - MATIN - SP- MOLTA).

M/s Pakistan Aviator flight No. NST239, G-150, Reg. No. AP-MMM, was operating from Sukkur to Islamabad descending from FL350 to FL260 on route to J112/J121 (MOLTA - NIKET - LA - INDEK).

- 1.2 **Injuries to person(s).** No injury was reported on board to any of the passengers.

- 1.3 **Damage to Aircraft.** No damage occurred due to this incident to any aircraft.

- 1.4 **Flight Crew Information.** Not applicable.

- 1.5 **Aircraft Information**

1.5.1	M/s Air Blue	(ABQ201)
	Aircraft Make	: Airbus
	Type of Aircraft	: 320
	Aircraft Registration	: AP-EDA
	Sector	: OPRN - OPRN
	Flight Condition	: Climbing
	Altitude	: FL250

1.5.2	M/s Pakistan Aviator	(NST239)
	Aircraft Make	: Gulfstream
	Type of Aircraft	: 150
	Aircraft Registration	: AP-MMM
	Sector	: OPSK - OPRN
	Flight Conditions	: Descending
	Altitude	: FL260

- 1.6 **Meteorological Information.** No significant weather was reported at operating altitude at the time of occurrence.

- 1.7 **ATC Tape Extracts.** Audio / video tape extracts (**Appendix 'C' & 'D'**) were obtained for detailed analysis.
- 1.8 **Resumption of Navigation by Aircraft.** Post occurrence, the aircraft continued for their respective destination.
- 1.9 **Sequence of Events.**
- 1.9.1 At 06:06:42 UTC NST239 maintaining FL350 requested Area East for descend, in response Radar East Controller cleared NST239 to descend FL260 along with traffic information of reciprocal traffic of PAF aircraft climbing FL250, which was acknowledged by the aircraft.
 - 1.9.2 At 06:08:46 UTC ABQ201 contacted Lahore Area East and informed that, she was climbing out of FL225 for FL250, in response Radar Area East Controller identified the aircraft at position 'INDEK' and advised her to climb up to FL250 and to be stand by for higher due reciprocal descending FL260. This was acknowledged by the aircraft.
 - 1.9.3 At 06:09:56 UTC Radar Area Controller passed NST239 the additional traffic information of ABQ201 climbing FL250 which was acknowledged by NST239.
 - 1.9.4 Radar Area Controller also passed traffic information of reciprocal traffic NST239 to ABQ201 which was acknowledged by the aircraft.
 - 1.9.5 At 06:12:15 UTC Radar East Controller intimated NST239 about her position (15NM short of INDEK) and advised her to change over to Islamabad Radar for further descend which was acknowledged by NST239.
 - 1.9.6 At 06:12:25 UTC ABQ201 intimated Radar East that she has TCAS-RA with reciprocal traffic and she has descended down on TCAS and now clear of traffic.
 - 1.9.7 At 06:12:50 UTC Radar East Controller cleared ABQ201 to FL360 which was acknowledged by aircraft.

2. FINDINGS

- 2.1 Duty Area Radar East Controller provided standard separation by assigning FL260 to NST239 and FL250 to ABQ201.
- 2.2 Traffic Information was passed to both ABQ201 and NST239 and acknowledged by the respective flights.
- 2.3 As per video tracing:
 - 2.3.1 NST239 was observed descending from FL270 to FL260 with rate of descent more than 2000ft/min, where as ABQ201 was observed climbing from FL240 to FL250 with rate of climb 600ft /min.
 - 2.3.2 ABQ201 was observed descending on TCAS-RA from FL243 to FL242 and again continued climbed just before crossing the reciprocal traffic.
 - 2.3.3 At the time of crossing both aircraft were 2000ft vertically apart.
- 2.4 Both aircraft crossed each other with more than standard separation.

- 2.5 There was no loss of separation between ABQ201 and NST239.
- 2.6 ABQ201 reported TCAS-RA and NST239 did not report any RA on R/T.
- 2.7 **Cause of Occurrence**
- 2.7.1 TCAS-RA triggered due to non compliance of the recommended procedures by NST239 on vertical speed limitation during last 1000ft of assigned level / altitude as mentioned in ICAO Doc 9863 ACAS Manual.

3. SAFETY RECOMMENDATION

- 3.1. M/s Pakistan Aviator to thoroughly brief their cockpit crew for strict adherence to the recommended procedure in respect of descent / climb limitation during last 1000ft of the assigned altitude, as mentioned in ICAO Doc 9863 ACAS Manual.