

FINAL INVESTIGATION REPORT



SERIOUS INCIDENT OF TCAS-RA REPORTED BY M/S
BRITISH AIRWAYS, FLIGHT NO. BAW15, B773ER REG.
NO. G-STBH (LONDON - SINGAPORE) ON
14TH FEBRUARY, 2017

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INVESTIGATION INTO THE SERIOUS INCIDENT OF TCAS – RA REPORTED BY M/S BRITISH AIRWAYS, FLIGHT NO. BAW15, B773ER, REG. G-STBH (LONDON - SINGAPORE) ON 14TH FEBRUARY, 2017

Synopsis

On 14th February, 2017, M/s British Airways flight no. BAW15, B773ER, Reg. G-STBH from London to Singapore, maintaining FL350 reported TCAS-RA due to M/s Royal Flight No. ABG-8672, B752, Reg. VQBTM from Goa to Koltsovo (Russia) maintaining FL350.

The serious incident was reported in daily IOU report for the period 140500LT to 150500LT February, 2017 (**Appendix 'A'**). Memorandum was issued vide letter No. HQCAA/1904/40/106/SIB/128 dated 27th February, 2017 (**Appendix 'B'**) and Notification vide letter No. HQCAA/1904/40/106/SIB/124 dated 01st March, 2017 (**Appendix 'C'**).

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

1. FACTUAL INFORMATION

1.1 **History of Flights.** M/s British Airways flight no. BAW15, B773ER, Reg. G-STBH from London to Singapore was following route segment ROSIE – ZHOB - HILAL, estimating ZHOB 05:48 UTC, maintaining FL350.
M/s Royal Flight no. ABG-8672, B752, Reg. VQBTM from Goa to Koltsovo (Russia) was following route segment SALED – ZHOB – REGET – SAJAN - SITAX, estimating ZHOB 05:49 UTC maintaining FL350.

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 British Airways	(BAW15)
	Aircraft Make	: Boeing
	Type of Aircraft	: 773ER
	Aircraft Registration	: G-STBH
	Sector	: EGLL - WSSS
	Flight Conditions	: Maintaining Flight Level
	Altitude	: FL350

1.5.2	M/s Royal Flight	(ABG8672)
	Aircraft Make	: Boeing
	Type of Aircraft	: 752
	Aircraft Registration	: VQBTM
	Sector	: VOGO - USSS
	Flight Conditions	: Maintaining Flight Level
	Altitude	: FL350

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 'D' & 'E'**) 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 05:35:55 UTC, BAW15 contacted Lahore Area West and intimated that she was estimating position "ROSIE" at 0545UTC, "ZHOB" 0548UTC and "HILAL" 0556 UTC while maintaining FL350. In response Area Radar West Controller cleared BAW15 to transit Flight Plan Route, maintaining FL350.
- 1.9.2 At 05:40:14 UTC ABG8672 contacted Lahore Area West and reported position "SALED" maintaining FL350. In response Area Radar Controller West advised aircraft to maintain FL350 and on pilot request advised aircraft to expect FL340 at "SAJAN", which was acknowledged by the aircraft.
- 1.9.3 At 05:43:55 UTC ABG8672 requested direct to 'REGET' or "SAJAN", which was not approved by the Controller.
- 1.9.4 At 05:45:58 UTC BAW15 reported overhead "ROSIE" maintaining FL350. In response Radar Controller advised aircraft to stand by for Radar Contact and to report "HILAL", which was acknowledged by the aircraft.
- 1.9.5 At 05:48:35 UTC Area Radar West Controller intimated BAW15, Radar Contact, position ZHOB, report "HILAL" which was acknowledged by the aircraft.
- 1.9.6 At 05:49:53 UTC BAW15 reported TCAS and descended to FL 349 on TCAS-RA.
- 1.9.7 At 05:50:02 UTC, ABG8672 intimated Radar Controller that she is getting Traffic 2 Miles from right side.
- 1.9.8 At 05:50:17 UTC, up on query from Radar Controller about Flight level, BAW15 intimated that she is now climbing FL350.

2. FINDINGS

- 2.1 Controller training was in progress in ACC Radar West Sector.
- 2.2 Radar Instructor was not available at control position. Radar Instructor had left the trainee alone, to greet some delegation visiting Lahore ACC at that time.
- 2.3 System generated Flight progress strips of AGB8672 were received in ACC west with FL340, later on flight level of ABG8672 was changed as FL350 and received from Karachi ACC on land line, which was not posted on Flight progress strips.
- 2.4 BAW15 contacted Lahore Area West, 10 minutes before passing Transfer of Control Point (TCP). ABG8672 contacted Lahore Area West over TCP.
- 2.5 Both flights were advised to maintain FL350.
- 2.6 Medium Term Conflict Detection (MTCD) was showing confliction but was ignored by Procedure Controller.
- 2.7 Short Term Conflict Alert (STCA) with 'Prediction' and 'Violation' modes were activated but were ignored by Trainee Controller.

- 2.8 As per daily IOU report, "In ATM AIRCON-2100, the phenomenon of False activation of STCA alarm along with False level Variation of overlapping aircraft is being observed since September,2011 at different positions causing distraction and loosing sanctity of Alert Alarm System". This may be the cause of bad practice of ignoring alert alarms.
- 2.9 As per Radar Video tracing:
- 2.9.1 Both aircraft were in radar contact, when they were 30 NM before crossing each other and maintaining FL350.
- 2.9.2 BAW15 and ABG8672 crossed each other at 3NM latterly at same level.
- 2.9.3 BAW15 was observed, descending on TCAS-RA till FL349 just before crossing the opposite traffic and again climbed to FL350.

3. CAUSE OF OCCURRENCE

- 3.1 Incident occurred due to:
- 3.1.1 Radar OJT Instructor failed to supervise the Trainees action due to non availability at control position.
- 3.1.2 Radar Area Trainee could not visualize the traffic confliction and also failed to react appropriately against **prediction and violation alerts** generated by the system in spite of holding Radar Approach Rating.
- 3.1.3 Procedure Controller failed to update his flight progress board, could not visualize the traffic confliction and also ignored (Air Traffic Management) ATM system alerts for appropriate remedial actions.

4. SAFETY RECOMMENDATIONS

- 4.1 Based upon the above mentioned findings, safety recommendations are :
- 4.1.1 CAA Pakistan to ensure the availability of Instructor at control position (as per laid procedures) while Controller Training is in progress.
- 4.1.2 Radar Area Trainee is to be given requisite recurrent training of ATM system prior to deploying on Radar.
- 4.1.3 Procedure Controller is to be given requisite recurrent training prior to re-evaluation for deploying for independent duties.
- 4.1.4 Instructions be issued for all Controllers not to avoid Alert Alarms.
- 4.1.5 CAA Pakistan to ensure for resolving the issue of "Activation of False alarms" on priority basis.