



# AIRPORTS AUTHORITY OF INDIA

## Directorate of Air Traffic Management

RAJIV GANDHI BHAWAN, NEW DELHI-110003

[File No. AAI/ATM/S&P/31-20/2008]

# ATMC

## AIR TRAFFIC MANAGEMENT CIRCULAR NO. 3 of 2009

### Reporting & investigation of Air Traffic incidents

#### 1. Introduction

1.1 Reporting, investigation and analysis of incidents is a highly effective means of accident prevention because an incident is a prelude to an accident. It is very important that all deficiencies within the air traffic services system are identified and reported so that appropriate corrective actions can be taken to resolve the associated problems. ATS incidents should be reported so that those problems, either systematic or individual, can be corrected to enhance the ATS system integrity. ATS incidents should be reported without the fear of reprisal.

#### 2. Purpose

2.1 The purpose of this ATMC is to standardize the procedure for reporting and investigation of air traffic incidents.

#### 3. Scope

3.1 This ATMC is addressed to all airports including civil enclaves and ATC units of Airports Authority of India.

#### 4. Terms

4.1 **Incident.** An incident is an occurrence other than an accident associated with the operation of an aircraft which affect or could affect the safety of operation. It relates to a serious occurrence involving air traffic such as a near collision or a serious difficulty caused by faulty procedures, or the lack of compliance with applicable procedures or the failure of ground facilities resulting in a hazard to aircraft.

4.2 **AIRPROX.** AIRPROX is the abbreviation used in an air traffic incident report to designate aircraft proximity. Aircraft proximity is a situation in which, in the opinion of a pilot or air traffic service personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised. An aircraft proximity is classified as follows:

- (i) *Risk of collision:* Serious risk of collision has existed.
- (ii) *Safety not assured:* The safety of the aircraft may have been compromised.
- (iii) *No risk of collision:* No risk of collision has existed.
- (iv) *Risk not determined:* Insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

ICAO has not quantified these categories. Investigation of several AIRPROX incidents in India have revealed that even though a breach of separation had taken place, these incidents cannot be treated as critical or serious. So far most of the ATC incidents are termed as AIRPROX incidents regardless of their seriousness. In view of the circumstances detailed above and keeping in line with international practice, DGCA vide Air Safety Circular 05/2009 classified air proximity in India as under:

<b>Categorization</b>	<b>Severity</b>	<b>Definition</b>	<b>Explanation</b>
<b>A</b> Critical incident	Risk of collision	Serious risk of collision has existed.	Any incident which involves high risk of collision, with the aircraft passing 250 feet vertically and 500 feet laterally.
<b>B</b> Serious incident	Safety not assured	The safety of the aircraft may have been compromised.	<p>1. An incident which could have resulted in critical incident if no action had been taken by either the flight crew or the air traffic controller. The proximity between the aircraft was: Vertically: 250 feet or more but less than the half of the approved separation minima. Laterally: 500 feet or more but less than the half of the approved separation minima.</p> <p>2. An incident where no avoiding action was taken however the direction, altitude and separation were such that the safety of the aircraft may have been compromised.</p>
<b>C</b> No Hazard	No risk of collision	No risk of collision has existed	Incident involving break down of prescribed separation standards where direction and altitude would have made a mid air collision improbable, regardless of evasive action taken. Aircraft passed with $\geq$ 50% of approved separation minima.
<b>D</b> Unclassified	Risk not determined	Insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.	Insufficient information was available to determine the risk involved.

## 5. Reporting of incidents:

- 5.1 Air traffic incidents are often reported through ATS air-ground communication channels. Such reports and any associated information shall be recorded by the unit concerned in the log book and immediately brought to the notice of watch supervisor/ ATS In-Charge, as applicable.
- 5.2 An air traffic incident known to have occurred shall be recorded in the log book of the ATC unit in which it had taken place by the concerned ATCO and immediately brought to the notice of watch supervisor/ ATS In-Charge, as applicable.
- 5.3 ATS In-charge/ Watch Supervisory officer shall provide relief to the controller who was involved in ATS incident from the ATS channel as promptly as operational and staffing conditions permit. This action allows controllers the opportunity to prepare statements while the circumstances are still fresh in their minds.
- 5.4 It shall be the responsibility of ATS In-charge/ Watch Supervisory officer to report air traffic incidents to Director/ Regional controller of air safety, Civil Aviation Department, Government of India by fastest means of communication like Telephone, Fax, AFTN message etc.
- 5.5 Information regarding air traffic incidents shall also be reported immediately to Member (OPS), ED (ATM)/ GM (S&P) telephonically following its occurrence. ATS In-charge/ Watch Supervisory officer may withhold information till the morning at his discretion for late night occurrences. However situations involving emergency may be intimated immediately.
- 5.6 Air traffic incident report Form as shown in **Appendix A** shall be used by ATS units while initially recording and reporting an air traffic incident. The format may also be used for the text of a message to be transmitted over the AFTN network. Copies of the form should be made available in all ATS units. Air traffic incident report Form may be faxed and e-mailed to ED (ATM), ED (Aviation safety) and GM (S&P) at the earliest.
- 5.7 Air traffic incidents are identified and designated in reports as follows:

Type of air traffic incident	Designation of incident
Aircraft proximity	AIRPROX
Serious difficulty caused by faulty procedures or lack of compliance with applicable procedures	Procedural
Serious difficulty caused by failure or ground facilities	Facility

- 5.8 Non-reporting and non-recording of air traffic incident shall be considered as an attempt to suppress information and the same shall be avoided under all circumstances.

## 6. Initial Action:

- 6.1 Immediately following an air traffic incident all documents (viz. log book, flight progress strips, meteorological reports/forecasts etc.) and recordings (viz. VHF/Radio transmissions, intercom, Radar recording, telephone communications etc.) relating to the incident shall be preserved for investigation purpose.
- 6.2 An air traffic control officer involved in an air traffic incident shall normally be withdrawn from the ATS unit in which the incident has taken place. If the preliminary investigation on the basis of documental evidence suggests no *prima facie* case against the controller, he/she may be restored to the ATC unit from which he/she was withdrawn by ATS In-charge in consultation with Director/ Regional controller of air safety, Civil Aviation Department, Government of India and intimated to ED (ATM)/GM (S&P).

6.3 A preliminary report about the incident shall be prepared by ATS In-charge and forwarded to Director (Air Safety) DGCA HQ, ED(ATM) and ED(Aviation Safety) within three days of the occurrence of the incident. It shall contain *prima facie facts* and shall include the following:

- a) details of aircraft involved (call sign, type, registration marking, operator and place of departure & destination);
- b) names and operating positions of ATS personnel involved;
- c) full details of the sequence of events in narrative form;
- d) statements by personnel involved;
- e) transcript of relevant voice recordings and telephone communication;
- f) copies of flight progress strips and other flight data, including graphical presentation of radar data;
- g) copies of meteorological reports and forecast relevant to the time of the incident.

## 7. Investigation of incident

7.1 It is essential to determine the cause of an air traffic incident, with minimum delay so that action can be taken to prevent a recurrence. To give effect to the air traffic incident investigation process, an ATS investigation team (PIB) shall be established at Delhi, Mumbai, Kolkata, Chennai, Guwahati and Hyderabad airport as per the guidelines issued by DGCA. The investigation team shall consist of the following:

- a) Director air safety/ Regional Controller of Air Safety/ its representative - **Convener**
- b) Jt. GM/DGM (S&P) of IGI AIRPORT/ NSCBI Airport Kolkata/ CSI Airport Mumbai/ Chennai Airport/ LGBI Airport Guwahati - **Member secretary**
- c) Jt. GM/DGM (Com) of IGI AIRPORT/ NSCBI Airport Kolkata/ CSI Airport Mumbai/ Chennai Airport/ LGBI Airport Guwahati - **Member**
- d) Jt. GM/DGM (Aviation –Safety) Delhi/Mumbai/Kolkata/Chennai/Guwahati - **Member**
- e) Jt. GM/DGM (ATC) Northern/ Western/ Eastern/ Southern/ North-east region if air traffic incident takes place in the jurisdiction of ATS units other than Delhi, Mumbai, Kolkata, Chennai and Guwahati - **Member**
- f) In case of incident in Hyderabad airspace the ATS investigating team shall comprise of the following:
  - i) Regional Controller of Air Safety Hyderabad/ its representative - **Convener**
  - ii) DGM (S&P) Hyderabad Airport - **Member secretary**
  - iii) DGM (Com) - **Member**
- g) In addition when necessary, controller(s) involved in the incident should be given the opportunity to represent himself or nominate an experienced controller to present his point of view.
- h) The investigation team may co-opt other members as per guidelines issued by DGCA.

7.2 The report of ATS investigation team should include a brief summary of the incident, sequence of events in narrative form, analysis with all relevant information, and conclude with a list of findings, conclusions, causes and safety recommendations for the purpose of accident/incident prevention. The fundamental objective of the investigation is prevention of accidents, and not to apportion blame or liability. Therefore the team should not make recommendations on personnel in the event of controller error. Quantum of corrective training etc. if required will be decided at the AAI CHQ in coordination with DGCA headquarter.

- 7.3 Signatures of all the members must be appended to the report. No member shall decline to sign the report due to differences of opinion either partly or fully. However in case of differences of opinion a dissenting note may be appended to the report.
- 7.4 Investigation report along with dissenting note if any shall be considered and analyzed at the fortnightly meeting between Air Safety Directorate DGCA, ATM and Aviation safety Directorates of AAI for acceptance or sending for re-investigation.
- 7.5 The investigation team shall complete the investigation within one and a half month and send a detailed report to Deputy Director General/ Director (Air Safety) DGCA Headquarters, ED (ATM) and ED (Aviation safety).

## **8. Return of involved controller to operational duties:**

- 8.1 The reasons for suspension of a controller's rating and the assignment of corrective/proficiency training are to assist and enhance the individual controller's performance to the best of his/her abilities and that minimum quality standards are met. It is not intended that this process be viewed as punishment towards any individual. This will also improve the overall performance and quality of the air traffic services.
- 8.2 After completion of corrective/proficiency training the controllers rating shall be restored as per recommendation of final investigation report issued by ED (ATM) in consultation with DGCA.

## **9. Follow-up action:**

- 9.1 Follow-up action on the final recommendation of the incident will immediately be initiated by the concerned ATS/CNS in-charge and action taken report will be sent to ED (ATM) within 15 days.

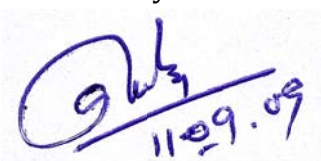
## **5. Queries**

- 5.1 Any queries or further guidance required on the contents of this ATMC should be addressed to:

Executive Director [ATM]  
Airports Authority of India  
Rajiv Gandhi Bhawan  
Safdarjung Airport  
New delhi-110003  
E-mail: edatmchqnad@aai.aero

## **6. Validity**

- 6.1 This ATMC will remain in force until further notice and DARA Circular 3 and 4 of 1996 is hereby cancelled.



**[V.K. YADAVA]**  
**EXECUTIVE DIRECTOR [ATM]**  
**AIRPORTS AUTHORITY OF INDIA**

**Dated: 11-09-2009**



### PRELIMINARY REPORT OF ATS INCIDENT

REPORT NUMBER

1. CLASSIFICATION <input type="checkbox"/> AIRPROX <input type="checkbox"/> PROCEDURAL <input type="checkbox"/> FACILITY	2. DATE OF INCIDENT: <hr/> 3. TIME OF INCIDENT:	4. ATS UNIT IN WHICH THE INCIDENT TOOK PLACE		
5. INCIDENT REPORTED BY <input type="checkbox"/> CONTROLLER <input type="checkbox"/> SUPERVISOR <input type="checkbox"/> PILOT	7. ALTITUDE OR FLIGHT LEVEL IN WHICH THE INCIDENT OCCURED <div style="display: flex; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>			
6. INCIDENT RECEIVED VIA <input type="checkbox"/> RADIO <input type="checkbox"/> TELEPHONE <input type="checkbox"/> AFTN <input type="checkbox"/> OTHERS				
1. LOCATION OF THE INCIDENT	IN AIR			
	FIX	DIRECTION	DISTANCE	CLOSEST DISTANCE
				HORIZONTAL      VERTICAL
	ON GROUND			
	RUNWAY:	TAXIWAY:	INTERSECTION:	
9. AIRCRAFT INFORMATION	AIRCRAFT NO. 1		AIRCRAFT NO. 2	
A. IDENTIFICATION				
B. TYPE OF AIRCRAFT				
C. PLACE OF DEPARTURE				
D. DESTINATION				
E. ATS ROUTE				
F. LEVEL FLIGHT	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
G. CLIMBING	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
H. DESCENDING	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
I. EVASIVE ACTION	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
J. TAKE-OFF ROLL	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
K. LANDING ROLL	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
L. UNDER RADAR SERVICE	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
M. RADAR VECTORED	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
N. TRANSPONDER FUNCTIONING	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
O. MODE C FUNCTIONING	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
P. RECEIVED TCAS/ ACAS RA	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> UNKNOWN	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN
10. CONTROLLER INFORMATION				
A. NAME: _____				
B. SECTOR/POSITION: _____				
C. TIME OF TAKING OVER CHANNEL BEFORE THE INCIDENT: _____				
D. NO OF AIRCRAFT CONTROLLER WAS HANDLING AT THE TIME OF INCIDENT: _____				
E. WAS THE POSITION/SECTOR COMBINRD: <input type="checkbox"/> NO <input type="checkbox"/> YES (EXPLAIN) _____				
F. WAS TRAINING IN PROGRESS: <input type="checkbox"/> NO <input type="checkbox"/> YES (EXPLAIN) _____				
11. WHETHER INCIDENT TOOK PLACE WITHIN SHORT TIME AFTER TAKING OVER CHANNEL: <input type="checkbox"/> NO <input type="checkbox"/> YES (EXPLAIN)				

12. WAS THERE A TRANSITION FROM RADAR TO PROCEDURAL OR VICE VERSA:

NO  YES (EXPLAIN)

13. WHETHER CONFLICT ALERT WAS GENERATED BY THE SYSTEM:

NO  YES (EXPLAIN)

14. WHETHER MSAW WAS GENERATED BY THE SYSTEM:

NO  YES (EXPLAIN)

15. WHETHER EQUIPMENT/ NAV AIDS A FACTOR:

NO  YES (EXPLAIN)

16. BRIEF DESCRIPTION OF THE INCIDENT

17. PERSON MAKING NOTIFICATION:

NAME:

POSITION:

SIGNATURE WITH DATE & TIME:

18. PERSON RECEIVING REPORT (WSO/ATS IN-CHARGE):

NAME:

POSITION:

SIGNATURE WITH DATE & TIME:

**Report Number:**

It should be written in a way that may help in keeping a track on number on ATC incident at a particular airport. The format should be: XXXX-YYY-00-01

XXXX is airport designator e.g. VABB, VIDP, etc

YYY is ATC unit e.g., TWR, ACC, APP, ACC, TAR, RSR, ADS, OCC, FIC etc.

00 is the last two digit of the year

01 is the incident number in sequence by year.