



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

DIRECTORATE OF AIR TRAFFIC MANAGEMENT

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ATMC

AIR TRAFFIC MANAGEMENT CIRCULAR NO. 05 of 2019

PERFORMANCE MONITORING AND SAFETY REVIEW OF ATS SYSTEM

1. INTRODUCTION:

- 1.1 Safety occurrences, such as AIRPROX, Runway Excursion/ Incursion, Level Burst, Airspace Infringement etc. lead to unsafe situations or incidents. Such safety occurrences are either reported by ATC or by flight crew as per established procedures.
- 1.2 Increase in air traffic has a direct impact on safety occurrences. As the air traffic increases, there is probability of increase in human errors, leading to increase in safety occurrences. If appropriate mitigation measures are not taken proactively in timely manner, these occurrences may increase exponentially.
- 1.3 The investigation of such safety occurrences is considered as a reactive approach. During investigation, only the active failures of individuals or system are emphasized. The latent conditions, which exist in the ATS system and may have contributed to the safety occurrences, are normally not highlighted.
- 1.4 Therefore, there is a need to establish a system for identification of underlying latent conditions in the ATS system which, if not addressed in timely manner, may result into or contribute to a safety occurrence.
- 1.5 Performance Monitoring and Safety Review of ATS System is one of the proactive approaches for identifying such latent conditions to ensure that standards, quality and safety are maintained through continuous improvement in ANS infrastructure and human resource management.

2. PURPOSE:

- 2.1 Purpose of this ATMC is to issue instructions and guidelines for the conduct of **Performance Monitoring and Safety Review of ATS System**.

3 SCOPE:

3.1 This ATMC is applicable to all the ATM personnel engaged in ATS Unit and ATS System of AAI all over India.

4 OBJECTIVE:

4.1 The objective of this ATMC is to ensure the adherence/ compliance to the standards/procedures and/or to identify areas of improvement for the individuals as well as for the ATM system within which they operate.

4.2 The objective of this ATMC is not directed at fault finding, but is a constructive mechanism to improve the Standards, Quality and Safety in the ATS System.

5 PROCEDURE:

5.1 In order to identify the underlying latent conditions in the ATS system as referred to in para 1.4 above, Performance Monitoring and Safety Review of ATS System is required to be conducted.

5.1.1 Performance Monitoring and Safety Review of ATS System activities include:

- Airspace structure and its constraints, if any;
- Adequate staffing level- Manning of ATC channels including rest & relief to controllers, vis-a-vis Staff strength;
- Working Environment (ambient lighting, temperature, noise level etc.),
- Availability of Updated Documents, SOPs, LoAs and Coordination Procedures,
- Deficiency in CNS-ATM system, Automation System, Adequacy and deficiencies of VHF, NAV-Aids and other system tools.
- Availability and operation of Crash Bell/ Siren.
- Availability and distribution of METAR and weather reports.
- Compliance of document control mechanism,
- Effective and efficient training system, Identifying gaps (if any) in the training system,
- Adherence to standards and procedures,
- Monitoring of VHF's and intercom for checking compliance with standards, instructions and procedures,
- Identifying other ATS system deficiencies based on feedback from ATS personnel,
- Monitoring of implementation of recommendations of previous safety reviews, if any,
- Any other factors affecting the standards, quality and safety in the system.

5.2 ATC SAFETY REVIEW

- 5.2.1 SQMS Section will collect incident reports from AAI Control Room, reports on Airprox, Runway Incursions and other significant incidents and consolidate it on monthly basis, carry out safety data analysis, monitor safety levels and report to Member (ANS), if there is any adverse trend.
- 5.2.2 If the adverse trend is due to deficiency in the ATC system at a particular location, officials of the Rank of DGM (ATM) and above of Standards, Quality Management and Safety Section (SQMS) of ATM Directorate, CHQ, may visit such location and carry out Performance Monitoring along with Safety Review of the ATC system, on approval of competent authority, for identification of the conditions which are affecting the safety level.
- 5.2.3 In addition to the above, ED (ATM) may also nominate some other suitable officers of the rank of DGM (ATM) or above for this purpose. Such officers shall have good knowledge of ATM systems, procedures and their application; well-developed interpersonal and communication skills together with a fundamental commitment to quality and maintenance of standards.
- 5.2.4 During the conduct of safety review, the system activities as mentioned above at para 5.1.1 above, should be observed and recorded in the proforma attached at Annexure-A. System deficiencies if any, shall also be recorded.

5.3 PERFORMANCE MONITORING

- 5.3.1 Performance Monitoring is the process of collecting, analyzing and/or reporting information about the performance of an individual controller working in an ATC Unit, group of controllers in an ATC System, Organization system or component to see whether output is in line with what was intended or should have been achieved.
- 5.3.2 'Over-the-shoulder' non-obtrusive monitoring of controllers working in ATC Unit is one of the direct methods of Performance Monitoring.
- 5.3.3 Performance Monitoring shall be conducted by officials of the Rank of DGM (ATM) and above of Standards, Quality Management and Safety Section (SQMS) of ATM Directorate, CHQ.
- 5.3.4 In addition to the above, ED (ATM) may also nominate some other suitable officers to conduct the same, as mentioned at para 5.2.3 above.
- 5.3.5 The Performance Monitoring Officers should record important observations during the process, in the prescribed proforma (Annexure-A) for the factors mentioned in Para 5.1.1 of this ATMC.

5.4 QUALITY IMPROVEMENT PROGRAM (QIP)

- 5.4.1 Quality Improvement Program (QIP) for surveillance Unit is another method which can be employed for Performance Monitoring in ATS Systems.
- 5.4.2 QIP of surveillance controllers shall be carried out at all Surveillance stations at least once in a year by the respective ATS In-Charge, Jt. GM (SQMS)/DGM (SQMS), Jt. GM (Training)/DGM (Training), Examiners or Instructors. ATS in-charges may prepare a quarterly calendar in this regard to facilitate smooth conduct of QIP at their respective surveillance stations.
- 5.4.3 While carrying out QIP it may be ensured that the officers conducting QIP are at least one rank higher in designation or at least senior to the controller undergoing QIP.
- 5.4.4 In addition to the above, QIP may also be conducted by officials of the Rank of DGM (ATM) and above of Standards, Quality Management and Safety Section (SQMS) of ATM Directorate, CHQ as and when required in accordance to para 5.2.2 above.
- 5.4.5 QIPs shall be conducted for the surveillance controllers through random replay of the surveillance data (audio and video both) in presence of the concerned controller. During the process of replay, the officer conducting QIP shall bring out lapses/ shortcomings/ deviation from standards/ skill related issues to the knowledge of the concerned controller through counseling.
- 5.4.6 The records of QIP shall be maintained and ATS Incharge shall review the same from time to time. Issues of serious nature, if any, may be communicated to the controller in writing through ATS in-charge and suitable corrective measures may also be taken in such cases at the station level.

5.5 ~~PERIODIC MONITORING & ANALYSIS OF RANDOM ATC TAPE TRANSCRIPTS~~

- ~~5.5.1 Periodic Monitoring & Analysis of Random ATC Tape Transcripts and Indirect Observations from a Remote Position are some of the other methods which can be employed for Performance Monitoring in ATS Systems.~~
- ~~5.5.2 ATS In Charge, Jt.GM (ATM-SQMS)/DGM (ATM-SQMS) of the station shall monitor & analyze random ATC tape transcripts of at least two ATC positions (one from ADC/SMC and one from surveillance ATC positions) every month and ATS Incharge shall take appropriate corrective action on the discrepancies observed, if any, and send the random tape transcripts along with comments of Jt. GM (ATM-SQMS)/ DGM (ATM-SQMS) and corrective action taken or proposed if any, to ED (ATM) by 15th of the following month.~~
- ~~5.5.3 At stations which do not have designated Jt. GM (ATM-SQMS)/ DGM (ATM-SQMS), responsibility of the entire exercise lies with the ATS in-charges.~~
- ~~5.5.4 On receipt of the random tape transcripts from the stations as mentioned above at para 5.5.2, SQMS section of ATM directorate in CHQ should analyze the same on random basis and initiate actions as deemed fit.~~

Para 5.5 of
ATMC 05 of 2019
is canceled and
superseded vide
ATMC 03 of 2026.

- 5.6 After each Performance Monitoring and ATS Safety Review, SQMS Section shall prepare and submit consolidated Safety Review report along with safety recommendations, based on the observation during Performance Monitoring and Safety Review, to Member (ANS) who will send the report/ safety observations to concerned ATM/ASM/CNS Directorate for corrective action.
- 5.7 Such Directorates shall submit corrective action plan to Member (ANS) within 15 days of receipt of safety review/ safety observations.
- 5.8 SQMS Section will follow up the status of implementation of corrective action plan submitted by the concerned directorates and report to Member (ANS), if his attention or intervention is required.

6 DOCUMENTATION

- 6.1 Records of Performance Monitoring and Safety Review of ATS System shall be maintained by the SQMS section of ATM directorate at CHQ.
- 6.2 Records of the QIPs shall be maintained at the station level and quarterly report for the preceding Quarter shall be submitted to the ED (ATM) by 20th of next month.
- 6.3 Records of 'Periodic Monitoring & Analyses of Random ATC Tape Transcripts' shall be maintained at the station level and SQMS section of the ATM directorate at CHQ.

7 REVIEW

ED (ATM) may review this ATMC whenever it is felt necessary.

8 QUERIES

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

The Executive Director (ATM)
Airports Authority of India
Rajiv Gandhi Bhawan, Safdarjung Airport
New Delhi-110003
E-mail: edatm@aai.aero

9 VALIDITY

This ATMC supersedes ATMC 06 of 2016 and shall remain in force until further notice.



(J.P. ALEX)
EXECUTIVE DIRECTOR (ATM)
AIRPORTS AUTHORITY OF INDIA

Proforma for Performance Monitoring and Safety Review of ATS System

Station:

Date:

Unit:

Time of Observations:to..... UTC.

Observations made by the Performance Monitoring and Safety Review Officer:

(Separate sheet may be attached, if needed)

Proposed Actions and Corrective Measures, if any:

Details of Performance Monitoring and Safety Review Officer

Signature:
Name:
Designation:

Signature:
Name:
Designation: