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Aviation Safety Portal in AIMS - Online Centralized HAZLOG

1 Introduction

Hazard Identification and reporting is one the core processes in the organization's Safety Management System (SMS). Hazard identification is a continuous, ongoing and daily activity. Hazard can be reported from any source - any aerodrome operational personnel, tenants and contractors interfacing with operational environment. Effective hazard reporting is a key component of safety management system. Once reported, data on hazards can be analyzed with other data sources to support the Safety Risk Management (SRM) and Safety Assessment (SA) processes.

The success of a reporting system depends upon the continuous flow of information from front-line operational personnel. The establishment and maintenance of a safety database provide an essential tool for personnel monitoring system safety issues.

Information that has been grouped together in an organized manner can be considered to be a database. However, storage, recording and retrieval of records using paper-based systems is cumbersome and will suffice for only small operations. ICAO in its SMM recommends - *Safety data should preferably be stored in an electronic database that facilitates the query of records and generation of analysis output in a variety of format.*

National regulatory requirement as per DGCA CAR on '**Establishment of a Safety Management System (SMS)**' states that – '*A service provider shall develop and maintain formal means for effectively collecting, recording, acting on and generating feedback about hazards in operations, which combine reactive, proactive and predictive methods of safety data collection'.*

Also, as per para 10.1.2 of DGCA CAR – '*A service provider shall develop and maintain safety data collection and processing systems (SDCPS) that provide for the identification of hazards and the analysis, assessment and mitigation of safety risks'.*

C-SMS Manual of AAI also states – '*Each aerodrome/ location must establish a single compiled HAZLOG/ Hazard Register, which contains all the hazards of the airport.* The guidance for establishment of HAZLOG / Hazard register is provided in attachment AAI-SAF-108 of C-SMS manual and in Aviation Safety Advisory circular 03 of 2014.

AIMS was chosen as the medium, in which Aviation Safety Dte portal is to be introduced for collection and management of safety data base electronically , as it already had a network established across AAI airports in India. Initially, 'Online Aviation safety portal' will have online hazard reporting, SRM process and facility of extracting summary of hazards in standard HAZLOG template. In future, it is planned to include online reporting of SPI Safety Data and database of the Accountable Executive & Safety Manager of each licensed AAI airports.

2 Purpose

The need for online Aviation Safety Directorate Portal was envisaged to meet regulatory requirement as mentioned above and thereby create an electronic data base of hazards of AAI managed airports that facilitates query on hazard and its analysis records. The system will also help in standardizing and simplifying SRM process.

3 Scope

The contents of this circular are applicable at all AAI owned airports and ANS (Air Navigation Services) units.

4 References

- DGCA CAR Section 1, Series C Part I , dated 20th July, 2010 on *Establishment of a Safety Management System (SMS)*
- ICAO DOC 9859 *Safety Management Manual* (3rd edition-2013)
- User manual on 'Online centralized HAZLOG'

4 Organizational Requirements

4.1 AAI shall implement the online centralized HAZLOG system at all licensed airports of AAI.

4.2 Necessary infrastructure may be provided to the Safety Manager and APD at all airports to use the system.

4.3 Make all the AAI employees aware of "Aviation Safety Directorate Portal" / online Hazard reporting in AIMS and provide required guidance to the officials for using the system.

4.4 All AAI managed airports/ ANS units should be encouraged for the collection, analysis and submission of the hazards using this tool in AIMS. Efforts should be made to populate the database with active hazards as soon as possible.

4.5 The main purpose of online hazard collection system is to establish a centralized HAZLOG wherein hazard database for all AAI Airports is maintained. However, the work required for mitigation of hazard is to be initiated by Risk Accepting Authority by using existing procedure on priority basis.

5 Documentation

5.1 The user manual of 'Online centralized HAZLOG' providing detailed guidelines has been attached along with this circular and uploaded in AAI website > AAI employees > serving AAI employees > Related links > Manuals > Aviation safety and also in Infosaarthee under Chairman > Directorate of Aviation Safety > Aviation Safety bulletin for guidance to all AAI airports.

5.2 Airports may refer to Chapter 7 & 10 of C-SMS Manual and Aviation Safety Advisory Circular 03 of 2014 for guidance on Hazard Identification & Safety Risk management process and & recording of Hazard.

6 Procedure

6.1 The Online Hazlog System has been divided into four levels of access:

1. **User Level:** Can be accessed by the Safety Manager of the airport. User ID – avsmgr
2. **APD Level**: Aviation Safety Dte. portal can be accessed by APD of the airport. User Id:- avsapd
3. **RHQ Level:** Aviation Safety Dte at various regions. User IDs –
   a. Northern Region : rhqnr.avs
   b. Eastern Region : rhqer.avs
   c. North Eastern Region : rhqner.avs
   d. Southern Region : rhqsr.avs
   e. Western Region : rhqwr.avs
4. **CHQ Level:** a. Aviation Safety Dte, CHQ. User ID – chq.avs
   b. Concerned Directorates (readdressal authority at CHQ) User IDs –

   ATM Dte, CHQ. User ID – edatm.avs
   CNS Dte, CHQ. User ID – edcnsp.avs & edcnsom.avs
   OPS Dte, CHQ. User ID – edops.avs
   PLNG Dte, CHQ. User ID – edplg.avs
   ENGG. Dte, CHQ. User ID – edengg1.avs, edengg2.avs, edengg3.avs, edengg5.avs & edengg5.avs

NOTE: Default password at all level is Password1, may be changed after first login.

6.2 The **User level** is initially been given access to the Safety Manager of the airport. Later, with improvement in the system, the level can be linked with AAI website, to facilitate reporting by other external sources. The user will fill following basic details:

- Description of hazard
- Source of hazard
- Functional area
- Date of record
- Worst consequence

After submitting the above details a unique Hazard ID will be generated and it will be escalated to the APD level.

6.3 At **APD level**, the analysis of the hazard will be carried out in Station Safety committee meeting and entered in the online system. The hazard details can be accessed using the Hazard ID and 'Edit' button in the Search option. Entire SRM process can also be completed using this tool online by a station safety committee/ APD by following methodology:

- Fill in Existing risk control(s) already present in the system to mitigate the identified consequence. Then click '√' option to save it. If more than one Risk Control needs to be entered use the add '+' option.
- Find out 'Initial Risk' taking into account Existing Risk control(s) and by using Risk Matrix.
- If the initial risk needs to be reduced, then the appropriate Potential Risk Control(s) can be suggested and entered along with the following fields:
  - Name and Designation of the Action Officer for implementation of potential risk control
  - Status of risk control (PDC) or date of completion
  - Description: Nature of work & level at which it can be done (Airport, RHQ, CHQ) etc.
  - Then click '√' option to save it. Multiple Potential Risk Control to be entered by using the add '+' option.
- Assessment of residual risk taking into account Potential risk control and by using risk matrix.
- Enter 'Review period' in terms of time period (e.g. every 2/3/6/12 months) / or a date and 'Remarks' if any e.g. "Potential risk control no.1- Work to be carried out at APD level; No. 2- To be done at RHQ level" etc. or any other remark felt appropriate.
- If the risk is accepted at APD level, then select the 'Acceptance level' to APD. The 'Reason' may be filled for accepting or escalating the 'Acceptance level'.
- If the Risk's Acceptance Authority is at RHQ/CHQ level [as per Chapter 7 para 7.4.16 of C-SMS manual (V3/I3)], then it can also be escalated by selecting 'Acceptance level' to RHQ or CHQ. Appropriate remarks to be mentioned highlighting the action required in the 'Reason' column.

NOTE: In case APD is Risk accepting authority, the work on potential risk control measures should be initiated by APD, in coordination with RHQ/CHQ (if required) as per existing procedures.

6.4 At **RHQ level**, the hazard data of airports in the region can be accessed by respective RHQ. All the pending actionable hazards are displayed on being logged in. It can be accessed by using the relevant hazard ID and edit option. The residual risk escalated by airport can be accepted at RHQ, by putting appropriate comments in the 'Reason' and action officer responsible for completing the work of potential risk control. The Regional Aviation Safety Officer should coordinate with RED for the same. If he has any query, then it can be addressed back to the APD using the 'Query' option. APD can reply back using the 'Query Reply option'. Thereafter, risk may accepted at RHQ level.

If, the Risk's Acceptance Authority is at CHQ level, [as per Chapter 7 para 7.4.16 of C-SMS manual (V3/I3)], then it may be escalated by selecting 'Acceptance level' to CHQ. Appropriate remarks to be mentioned highlighting the action required in the 'Reason' column.

NOTE: In case Risk accepting authority is at RHQ, the work on potential risk control measures should be initiated by concerned risk accepting authority at RHQ, in coordination with APD/CHQ (if required), as per existing procedures.

6.5 At **CHQ level**, the hazard data of all the airports of AAI can be accessed. If the Hazard is escalated by RHQ, where the residual risk needs to be accepted at CHQ level, then ED (Aviation Safety) should forward / coordinate with appropriate Risk Accepting Authority Directorate at CHQ for the same. If the Aviation safety Dte. has any query, then it can be addressed back to the RHQ/ APD using the 'Query' option. RHQ/ APD can reply back using the 'Query Reply option'.

A 'mail notification system' is introduced to draw the attention of the ED of concerned directorate on the risk forwarded by ED (AVS). A hazard can be forwarded to a concerned Directorate in CHQ for reddressal by ED (AVS), using 'Redressal Authority'. The official email id is displayed in the 'Forwarded' column. A mail notification is generated and sent to the official e-mail of concerned directorate's ED, with a brief Hazard report as an attachment.

At the Directorate level, after receiving the email notification, the concerned Dte. should log in to the Aviation safety portal and look up on the Hazard details. In case of any query, it can be raised by using the 'Query option' and sent back to the ED (Aviation Safety), who can in turn redirect it to the concerned RHQ/APD. ED (AVS)/RHQ/APD may reply back using the 'Query Reply option'.

If the risk needs to be accepted by the concerned Directorate, then the concerned ED may accept the risk and mention it in the 'Action Taken' column accordingly along with name of Action officer responsible for completing the work.

NOTE: In case Risk accepting authority is at CHQ, the work on potential risk control measures should be initiated by concerned risk accepting Dte. at CHQ, in coordination with APD/RHQ (if required), as per existing procedures.

6.6 APD can generate a summary of all hazards of its airport. Similarly, RHQs can view a comprehensive station-wise summary of hazards of the airports in its region and CHQ can view hazards of all AAI airports. The summary is in standard HAZLOG format as published in Aviation Safety Advisory Circular 03 of 2014 and can be generated by selecting 'Standard HAZLOG Template' and print out of HAZLOG template may be kept for record purposes.

6.7 The search and delete options are also provided to facilitate deletion of hazards not meeting the definition of hazard or are already recorded or when the hazard no longer exists. In these cases, the APD level user can close the hazard by entering the appropriate comments. However, the history of such deleted hazards can be retraced in the system.

6.9 It may be noted that the Risk Accepting Authority may coordinate with concerned Dte.in CHQ / RHQ/ APD for initiating work on potential risk control measures as per existing procedures on priority basis.

6.10 The detailed guidelines about the system is available in the user manual.

6.11 This system is, presently, being introduced on trial basis. All existing procedures shall be continued until further notice.

7 Clarifications

Any suggestions / feedback to improve the system or clarifications may be addressed to Executive Director (Aviation Safety) at edas@aai.aero or forwarded to following address:

Directorate of Aviation Safety
Airports Authority of India
Rajiv Gandhi Bhavan, Block – C
Safdarjung Airport
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