

Advisory Circular

[AC/AD – 10]

Guidance Material for Aerodrome Operators
to Implement Accident and Incident
Occurrence Reporting System, Analyze and
Maintain Database to Observe Trends and
Take Appropriate Action

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CIVIL AVIATION AUTHORITY OF NEPAL

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FOREWORD

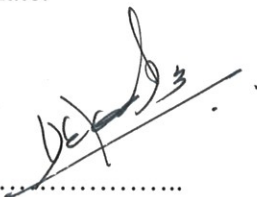
Nepal as a Contracting State to the Convention on International Civil Aviation has an obligation to the international community to ensure that civil aviation activities under its jurisdiction are carried out in strict compliance with the Standards and Recommended Practices contained in the nineteen Annexes to the Convention on International Civil Aviation in order to maintain the required aviation standards.

CAR- 13 requires to establish a mandatory incident reporting system to facilitate the collection of information on actual or potential safety deficiencies and also requires establishing a voluntary incident reporting system to facilitate the collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system.

This Advisory Circular (AC) provides guidance to aerodrome operators to implement accident and incident occurrence reporting systems, analyze and maintain a database to observe trends, and take appropriate action.

Users of this Advisory Circular are requested that the provisions of the *Civil Aviation Authority Act - 1996 (2053 B.S.)*, *CAAN Airport Certificate Regulations - 2004 (First Amendment - 2016)* and *Civil Aviation Regulation 2002, (Third Amendment 2017)* rather than this Advisory Circular, determine the requirements of, and the obligations imposed by or under, the civil aviation legislation. Users should refer to the applicable provisions when any doubt arises.

This Authority may, without any prior notice, change the content of this Advisory Circular as appropriate.



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Director General

Civil Aviation Authority of Nepal

Babar Mahal, Kathmandu, Nepal

March 2022

1. Purpose

This Advisory Circular (AC) is guidance for aerodrome operators to implement accident and incident occurrence reporting system, analyze and maintain data base to observe trends and take appropriate action and is intended to give guidelines along the prescriptions as given in the CAR- 13 and CAAN SMS Requirement-2010.

This AC will help the aerodrome operator to determine his requirements, needed to assist in the reporting of accident and incident occurrences.

2. Requirements

In an effort to take appropriate action, the accident and incident occurrence reporting system shall be put in place and data base maintained to analyze and observe trends.

3. Definitions

Accident: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all persons have disembarked, in which:

- a) a person is fatally or seriously injured as a result of:
 - i. being in the aircraft, or
 - ii. direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - iii. direct exposure to jet blast,
 - iv. except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
 - i. adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - ii. would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single-engine (including its cowlings or accessories), to propellers, wingtips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windcreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- c) the aircraft is missing or is completely inaccessible.

Dangerous goods accident: A dangerous goods accident is an occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.

Dangerous goods incident: A dangerous goods incident is an occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous

goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packing has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardizes the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

Hazard: A hazard is any condition, event or circumstance which could induce an accident, incident or failure.

Incident: An incident is an occurrence other than an accident associated with the operation of an aircraft which affects or could affect the safety of operation.

Likelihood: Used as a qualitative description of probability or frequency.

Monitor: To check, supervise, observe critically, or record the progress of an activity or system on a regular basis in order to identify change.

Occurrence: An occurrence includes an incident, serious incident or accident.

Risk: The chance of something happening that will have an impact upon objective. It is measured in terms of consequences and likelihood.

Risk Analysis: A systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.

Risk Assessment: The overall process of risk analysis and risk evaluation.

Risk Evaluation: The process used to determine risk management priorities by comparing the level of risk against predetermine standards, risk levels or other criteria.

Risk Identification: The process of determining what can happen, why and how.

Risk Level: The level of risk calculated as a function of likelihood and occurrence.

Risk Management: The culture, process and structure that are directed towards the effective management of potential opportunities and adverse effects.

Safety Culture: The product of individual and group values, attitudes, competencies and patterns of behavior that determine the commitment to and the style and proficiency of the organization's management of safety. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and confidence in the efficacy of preventive measures.

Serious incident: A serious incident is an incident involving circumstances indicating that an accident nearly occurred.

4. The Mandatory Occurrence Reporting System

4.1 The Objective

The objectives of the Mandatory Occurrence Reporting (MOR) System are as follows:

- (a) To ensure that the hazardous or potentially hazardous incidents and defects are reported (hereinafter referred to as occurrences).
- (b) To enable an assessment to be made by those concerned of the safety implications of each occurrence, both in itself and in relation to previous similar occurrences, so that any necessary action can be initiated.
- (c) To ensure that knowledge of these occurrences is disseminated so that persons and organizations may learn from them.

The overall objective of the occurrences reports is to use the reported information to improve the level of safety and not to attribute blame.

The system is an essential part of the overall monitoring function; it is complementary to the normal day to day procedures and ‘control’ systems and is not intended to duplicate or supersede any of them. The system is a tool to identify those occasions where routine procedures have failed.

The overall objective of the occurrence reporting system required by the CAAN SMS Requirement 2010 is to enable the collection and assessment of relevant incident and accident reports in order to identify adverse trends or to address deficiencies in the interest of aviation safety. The objective is to use reported information to improve the level of aviation safety and not to attribute blame.

4.2 Roles & Responsibilities

The existence of the MOR system to achieve the above objectives is not intended to replace or reduce the duties and responsibilities of aviation personnel. The primary responsibility for safety rests with the management of the organizations involved. The CAAN responsibility is to provide the regulatory framework within which the organization must work and thereafter to monitor performance to be satisfied that required standards are set and maintained. The MOR system is to be established as part of the Aerodrome Operator monitoring function and is complementary to the normal day-to-day procedures and systems; it is not intended to duplicate or supersede these.

It is thus no less incumbent upon Aerodrome Operator:

- (a) to record occurrences and;
- (b) in conjunction with the appropriate organization and when necessary the CAAN, to investigate occurrences in order to establish the cause sufficiently to devise, promulgate and implement any necessary remedial and preventative action.

In relation to all reported occurrences, including those raised by its own personnel, the Aerodrome Operator will:

- (a) evaluate each occurrence report received;
- (b) decide which occurrences require investigation by the CAAN;
- (c) make such checks, as it considers necessary to ensure that other organizations are taking any necessary remedial and preventative action in relation to reported occurrences;
- (d) take such steps as are open to it to persuade other aviation organizations to take any necessary remedial and preventative action in relation to reported occurrences;
- (e) assess and analyze the information reported to it in order to detect safety problems which may not be apparent to individual reporters;
- (f) make available the information derived from occurrence reports in accordance with the relevant CAAN Regulations;
- (g) make available the results of studies of the data provided to those who will use them for the benefit of aircraft and aerodrome safety;
- (h) where appropriate, issue specific advice or instructions to particular sections of the organization;
- (i) where appropriate, make recommendations in relation to legislation, requirements or guidance.

5. Voluntary Reporting

The aerodrome operator should encourage voluntary reporting across the whole spectrum of civil aviation operations. A voluntary report is made by a person not required to report legally. Voluntary reports are processed in a similar way to mandatory reports.

6. Confidential Reporting

If any reporter considers that for any reason it is essential that their identity not be revealed, the report itself should be clearly annotated 'CONFIDENTIAL' and the envelope should be marked 'Personal' and submitted direct to the concerned chief. The request will be respected and the reporter will be contacted personally. The aerodrome operator cannot, of course, guarantee confidentiality when an occurrence is reported separately by another party or where it applies in respect of gross negligence. Reporters submitting a Confidential Report must accept that effective investigation may be inhibited. However, the aerodrome operator would rather have a Confidential Report than no report at all.

7. Confidentiality and Dissemination of Reports

Without prejudice to the proper discharge of its responsibilities, the aerodrome operator will not disclose the name of the person submitting the report or of a person to whom it relates unless required to do so by law; or the person concerned authorizes disclosure. Should any safety follow-up action arising from a report be necessary, the aerodrome operator will take all reasonable steps to avoid disclosing the identity of the reporter or of those individuals involved in any reportable occurrence.

It is fundamental to the purpose of the reporting of incidents and accidents, that the knowledge gained from the investigation of these occurrences is disseminated so that we may all learn from them. The aerodrome operator should ensure that relevant safety information deriving from the analysis of reports, which have been subjected to misidentifications, is made available to all parties, so that they can be used for improving safety.

8. Assurance Regarding Prosecution

The aerodrome operator requires that staff who report incidents/occurrences are not subjected to any prejudice by their manager. In any event, where a reported occurrence indicated an unpremeditated or inadvertent lapse by staff, the aerodrome operator expects to act responsibly and to share its view that free and full reporting is the primary aim, and that every effort should be made to avoid action that may inhibit reporting.

The aerodrome operator should give an assurance that its primary concern in relation to the reporting system is to secure free and uninhibited reporting.

9. Systems for Reporting Hazards, Events and Safety Concerns

The aerodrome operator will make sure that its personnel report all events and emerging hazards to a concerned manager, as identified in the manual. The manager will then forward it to the data bank for processing. The reporting system should be simple, confidential and convenient to use and should be complemented with a non-punitive disciplinary policy. These attributes, accompanied by efficient follow-up

mechanisms acknowledging to the reporter that a report has been received, investigated and acted upon, will encourage the development of a reporting culture. The results should be distributed to the individual involved and the population at large.

There are many reporting programs in place for all types of operations. It is important to establish a system that suits the size and technology level of the operational environment. In smaller operations, reporting might be achieved through a simple written form deposited in a conveniently situated, secure box. Larger organizations may employ a more sophisticated, on-line safety reporting system. Under certain conditions it may be more expedient to submit a verbal report; without exception, however, this should be augmented with a written report.

At a minimum, report forms should allow for a full description of the event and provide space for the reporter to offer suggestions as to possible solutions to the problem being reported. Reports should employ a common and clearly understood taxonomy for error classification. Simply put, this is the division of error types into ordered groups or categories. It is important that reporters and investigators share a familiar language to explain and understand the types of errors that are contributing to events. This will facilitate more accurate data inputs and trend analysis. No matter what reporting system is utilized, its effectiveness will depend mainly on four things as follows:

The aerodrome operator has a non-punitive disciplinary policy in place.

- Employees clearly understand what they should report;
- All reports are confidential and analysed;
- Individuals are provided feedback on their reports in a timely fashion;

10. What should be reported?

Knowing what to report plays a key role in an active reporting program. As a general rule, any event or hazard with the potential to cause damage or injury should be reported. However, the number of variables in aircraft operations is so great that it is very difficult to provide a complete list of items or conditions which should be reported. The rule therefore should be: "**If in doubt – report**". Also refer Appendix.

The following safety occurrences have to be reported to CAAN:

- Runway Incursions;
- Accidents or incidents with injuries;
- Emergencies called in by aircraft;
- Aircraft collisions;
- Overweight Landings;
- Accidents and incidents with dangerous goods;
- Aircraft damages;
- Bird strikes;
- Damages through FOD;

- Damages and injuries through jet blast and prop wash;
- Incidents with unruly passengers or passengers under the influence of drugs;
- Over fuelling of aircraft;
- Incidents, which have led to the endangerment of passengers and crew of an aircraft;
- Impediment of aircraft movements.

Through the systematic recording of safety occurrences at the airport a comprehensive basis is established for the assessment and evaluation of the safety level at the airport.

11. Applicability

In deciding whether or not to report an occurrence, it must be decided whether the event meets the definition as specified in the reporting requirement or not. For instance a reportable occurrence in relation to an aircraft means:

Any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person or property.

Any person specified in the manual should report any reportable occurrence of which they have positive knowledge, even though this may not be first hand, unless they have genuine reason to believe that appropriate details of the occurrence have already been, or will be, reported by someone else.

A report should also be submitted on any occurrence that involves an unsatisfactory condition, behaviour or procedure, which did not immediately endanger the operation but if allowed to continue uncorrected, or if repeated in other foreseeable circumstances, would create a hazard.

It is of great importance to the success of the System that the reporters keep firmly in mind the concept of 'endangering' or 'potentially endangering', when deciding whether or not to submit a report. Obviously, the primary objective of occurrence reporting is to monitor, disseminate and record for analysis, critical or potentially critical safety occurrences. However, it is not intended to collect and monitor the normal flow of day-to-day defects/incidents etc. The latter is an important part of the overall aviation safety task, but other procedures and systems exist to carry out this function. When appropriate, such systems also provide the necessary records for statistical purposes. In order to achieve the above objectives for occurrence reporting, the criteria for a reportable occurrence need to be set as above, in terms of the effect on safety, the normal day-to-day defects or minor incidents. Overenthusiastic reporting of such items which fall below these criteria will involve unnecessary duplication and work to both the reporters and the aerodrome operator and will also tend, by sheer volume of data generated, to obscure the more significant safety items. Reporters should ensure that the content of their reports meet with the criteria and guidance laid out in the requirements so far as practicable.

12. Reporting Procedures

The process for reporting an event or a hazard should be as simple as possible. Report submission procedures should be well documented and should include details of where and to whom reports should be submitted. This will reduce confusion over where safety reports go and will ensure that all events are brought to the attention of the appropriate person.

When designing a safety report form, it is important to consider that the form may be used to submit information regarding events and hazards. The form should be structured in such a manner that it can accommodate both the reactive and proactive type of reporting. Sufficient space should be allowed for reporters to identify suggested corrective actions related to the issue they are reporting.

13. Data Collection

When producing an occurrence or hazard report; every effort should be made to ensure that the form is easy to understand and user friendly. The aerodrome operator should strive to make all reporting forms compatible for each area of the operation. This will facilitate data sharing, trend analysis and will also make the occurrence or hazard investigation process easier.

Depending on the size of the organization, the most means data collection method might be to utilize existing paperwork, such as flight and maintenance reports. The use of hand written reports or the information derived from verbal reports is equally acceptable. As previously stated, however, verbal accounts should always be followed-up with a written report.

14. Rational of the report

All events require appropriate investigation in order to:

- Establish their root cause, that is the underlying initial contributing factor(s) that caused the event, and identify actions to minimize the chance of recurrence;
- Satisfy any regulatory requirements for reporting and investigation as per the Civil Aviation Regulations and operator requirements;
- Provide a factual record of the circumstances of the event or hazard to allow others to learn from the situation; and
- Categorize the underlying causes and establish the appropriate remedial and continuous improvement action.

15. Information Sources for Determining Potential Risks

Assessing potential risk is often perceived as resource intensive and unduly burdensome. But, it doesn't have to be. There are numerous sources of readily

accessible information that can be utilized to better understand potential risk within an organization. The following list details some of the possible resources:

- a. **Operator Experience** – Existing safety reports detailing events and near misses. Minutes of safety meetings and committee meetings can also reveal potential areas of concern.
- b. **Line management Judgment** – All line managers through their involvement and experience will have perceptions of where the greatest risks are in their areas of accountability.
- c. **Workplace opinions** – Actively seek the input of the workforce. This can be achieved through focus groups, consulting employee representatives and conducting structured vulnerability analyses with subordinate managers and supervisors.
- d. **Audit Reports** – The operator’s internal audit system should contain a structured record of areas of concern in a prioritized format. A review of audit reports and remedial action plans (including an assessment of follow-up action completions) should be conducted.
- e. **Hazard analysis** – Records of previously conducted formal hazard analyses may reveal risk exposures, which did not appear very significant at the time, but do now, in light of the changed circumstances.
- f. **Generic hazard register** – Hazards/risks identified by other operators might trigger concerns that should be addressed by the operator.
- g. **Safety data recording systems** – Mandatory occurrence reporting programs and operator safety data exchange programs can be consulted.

16. Analysis of Occurrence and Hazard Reporting

Aerodrome operator should take into consideration that every event is an opportunity to learn valuable safety lessons. The lessons will only be understood, however, if the occurrence is analyzed so that all employees, including management, understand not only what happened, but also why it happened. This involves looking beyond the event and investigating the contributing factors, the organizational and human factors within the organization that played a role in the event. To achieve this, the organization should maintain procedures for the internal reporting and recording of occurrences, hazards and other safety related issues. The collection of timely, appropriate and accurate data will allow the organization to react to information received, and apply the necessary corrective action to prevent a recurrence of the event.

The key to accomplishing this is to have a reporting system that meets the needs of the people who will be using it – primarily, the employees. As such, employee input

into the development of the system is vital. A safety reporting system is worthless if no one uses it; the importance of the employee in the whole process, therefore, should not be minimized. An attendant non punitive discipline policy, and a real and demonstrated commitment by management to achieve the operator's safety goals, will help to foster the development of a reporting culture within the organization.

An operator's safety reporting system, in general, should encompass the following fundamental elements:

- Systems for reporting hazards, events or safety concerns;
- Systems for analyzing data, safety reports and any other safety related information;
- Methods for the collection, storage and distribution of data;
- Corrective action and risk reduction strategies;
- On-going monitoring and Confirmation of the effectiveness of corrective action.

17. Investigation Mechanism

There are many tools that can be utilized to investigate events. An initial risk assessment may help determine the type of investigation that is conducted, or an operator may employ a predetermined event investigation format regardless of the event. It is up to the individual operator to determine which the most appropriate method for their organization is.

To facilitate consistent reporting and subsequent storage and analysis of data, Occurrence Report Form ideally should be used for all mandatory occurrence reports except bird strike reports, which should be reported on Bird Strike Form. Operator may wish to use an occurrence report form designed to meet their own requirements. In such cases the 'in house' document(s) should, as far as possible, follow the general format of the CAAN Form.

The Civil Aviation Regulations deals specifically with the reporting of dangerous goods incidents and accidents which must be reported on Prescribed Form. To assist the ground services in preparing for the landing of an aircraft in an emergency situation, it is essential that adequate and accurate information about any dangerous goods on board be given to the appropriate air traffic services unit.

Every event should be investigated. The extent of the investigation will depend on the actual and potential consequences of the occurrence or hazard. This can be determined through a risk assessment. Evidently, reports that demonstrate a high potential should be prioritized and investigated in greater depth than those with low potential.

The investigative process should be comprehensive and should attempt to address the factors that contributed to the event, rather than simply focusing on the event itself - the active failure. Active failures are the actions that took place immediately prior to the event and have a direct impact on the safety of the system because of the immediacy of their adverse effects.

They are not, however, the root cause of the event. As such, applying corrective actions to these issues may not address the real cause of the problem. A more detailed analysis is required to establish the organizational factors that contributed to the error.

The investigator, or team of investigators must be technically competent and either possess or have access to background information, so that the facts and events are interpreted accurately.

The investigator should have the confidence of the staff and the investigation process should be a search to understand how the mishap happened, not a hunt for someone to blame.

18. Occurrences Closed on Receipt

Consideration should be given that a considerable number of occurrences reported to the CAAN, while meeting the criteria for a reportable occurrence, have been adequately dealt with by the reporting organization. Thus, there is no justification for further investigation by the CAAN, although details of the occurrence and action taken do provide valuable information for dissemination and storage purposes. Reports judged to be in this category are closed on receipt by Aerodrome Safety Manager, the principal justification for closure being that it is evident from the report that existing requirements, procedures, documentation, etc., coupled with the reporter's action, have adequately controlled the identified hazard. When necessary, Aerodrome Safety Manager will liaise with the reporter and/or seek advice from appropriate CAAN staff in making this decision. The ability of Aerodrome Safety Manager to close an occurrence on receipt and thus avoid the need for further CAAN investigation is very much dependent upon the quality of the information provided in the report and, specifically, information on the action taken by the reporting organization to control the situation.

19. Corrective Action Plan

Once a safety event report has been investigated and analyzed, or a hazard identified, a safety report outlining the occurrence, and if available, the results of a hazard assessment, should be given to the appropriate director for determination of corrective or preventative action. The functional director should develop a corrective action plan (CAP), a plan submitted in response to findings, outlining how the operator proposes to correct the deficiencies documented in the findings. Depending on the findings, the CAP might include short-term and long-term corrective actions. As an example:

a. Short-Term Corrective Action - This action corrects the specific issue specified in the audit finding and is preliminary to the long-term action that prevents recurrence of the problem. Short-term corrective action should be completed by the date/time specified in the corrective action plan.

b. Long-Term Corrective Action - Long-term corrective action has two components. The first element involves identifying the root cause of the problem and indicating the

c. Measures the audited will take to prevent a recurrence. These measures should focus on a system change. The second component is a timetable for implementation of the long-term corrective action. Long-term corrective action should include a proposed completion date.

Some long-term corrective actions may require time periods in excess of the operator's established acceptable timeframe, for example where major equipment purchases are involved. Where applicable, the operator should include milestones or progress review points not exceeding the established timeframe leading up to the proposed completion date. Where the short-term corrective action taken meets the requirements for long-term corrective action, this should be stated in the long-term corrective action section on the corrective action form.

20. Information Dissemination

All safety related information should be disseminated throughout the organization. Keeping current on safety provides better background for understanding aspects of the organization's safety condition and developing novel solutions to difficult problems. This can be accomplished by subscribing to safety related programs, making relevant safety reports available, and encouraging staff to participate in safety related training, seminars and workshops.

Another aspect of information dissemination is feedback on safety reports submissions. Employees should be notified when a safety report is received or when a potential safety threat is discovered. Further information should be provided pursuant to investigation, analysis and corrective action. Information dissemination can also be achieved through the publication of a organization magazine or through the organization website. The operator should endeavor to inform all employees as to where safety related information could be found. In this way the entire organization becomes aware of safety issues and understands that the organization is actively seeking to address these issues.

Appendix- Occurrence Required to be Reported

Ground Services, Facilities or Equipment

1. The following should be reported as indicated:

1.1 Air Traffic Control Services - by Flight Crew/ATCOs/Ground Ops Support Staff.

- Provision of significantly incorrect, inadequate or misleading information from any ground sources, e.g. ATC, ATIS, Meteorological Services, maps, charts, manuals, etc.
- Provision of less than prescribed terrain clearance.
- Provision of incorrect altimeter setting.
- Misidentification of aircraft by an ATCO or radar operator.
- Incorrect transmission, receipt or interpretation of significant messages.
- Airprox and any occurrence in which separation between aircraft is less than that prescribed for the situation.
- Non-compliance with prescribed letdown or departure procedures or any ATC/ATM instruction.
- Declaration of an emergency ('Mayday' or 'Pan') by an aircraft.
- Unauthorized infringement of any form of regulated airspace.
- Unauthorized or illegal RTF transmissions.
- ATC Overload reports.
- Declaration of an ACAS Resolution Advisory by an aircraft.

1.2 Navigation and Communications Equipment etc. – failures, malfunctions or defects – by Flight Crew/ATCO/ATS Maintenance Staff.

- Total failure of navigation system or subsystem being used by an aircraft.
- Total failure of navigation system or subsystem being used by an aircraft.

- Total failure of communications system.
- Total failure of radar system or subsystem.
- Failure or unplanned shutdown of a major operational ATC computer system requiring reversion to manual back up and resulting in disruption to the normal flow of air traffic.
- Significant malfunction or deterioration of Service.
- Significant deficiency in maintenance.
- Repetitive events of a specific type of occurrence, which in isolation may not be considered reportable (e.g. excessive monitor alarms).
- Provision of erroneous information in the absence of any alarms.

1.3 Airfields and Airfield Facilities - by Flight Crew/Airfield Staff/ATCOs.

- Failure or significant malfunction of airfield lighting.
- Major failure or significant deterioration of surfaces of runways or aircraft maneuvering areas.
- Runways or aircraft maneuvering areas obstructed by aircraft, vehicles or foreign objects, resulting in a hazardous or potentially hazardous situation.
- Runways or aircraft maneuvering areas obstructed by aircraft, vehicles or foreign objects, resulting in a hazardous or potentially hazardous situation.
- Runway incursions.
- Errors or inadequacies in marking of obstructions or hazards on runway or aircraft maneuvering areas.
- Errors or inadequacies in marking of obstructions or hazards on runway or aircraft maneuvering areas.
- Collision between a moving aircraft and any other aircraft, vehicle or other ground object.
- Aircraft departing from a paved surface which results in, or could have resulted in, a significant hazard.
- Jet or prop blast incidents resulting in significant damage or serious injury.
- Significant spillage of fuel on airfield ramps.

1.4 Passengers/Baggage/Cargo - by Flight Crew/Ground Support Staff.

- Difficulty in controlling intoxicated, violent or armed passengers.
- Incorrect loading of passengers, baggage or cargo, likely to have a significant effect on aircraft weight and balance.
- Inadequate storing of cargo containers or substantial items of cargo.
- Significant contamination of aircraft structure, systems or equipment arising from the carriage of baggage or cargo.
- Presence of a stowaway(s).

1.5 Aircraft Ground Handling/Servicing - by Flight Crew/ATS Maintenance Staff/ Ground Support Staff.

- Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance or structural strength.
- Loading of contaminated or incorrect type of fuel or other essential aircraft fluids (includes oxygen and potable water).
- Significant spillage of fuel.
- Failure, malfunction or defect of ground equipment used for test/check of aircraft systems and equipment when the required routine inspection and test procedures did not clearly identify the problem before safe operation of the aircraft could have been affected.
- Non-compliance or significant errors in compliance with required maintenance/ servicing procedures.

1.6 Ground Staff Incapacitation - by Flight Crew/Ground Staff

- When an aircraft was, or could have been, endangered by the impairment of any member of ground staff (e.g. Aircraft Maintenance Staff, Air Traffic Controllers, Air Traffic Services Maintenance Staff, and Airfield Support Staff etc.)

1.7 Any other occurrence of any type considered to have endangered, or which might have endangered the aircraft or its occupants.