

CAD 01-02

SAFETY OCCURRENCE REPORTING

Effective: 1st August 2024

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1.1. General

This CAD provides interpretation on reporting of Occurrence by “Organisation” (refer to the definition) with regard to Annexes 2, 3, 6, 8, 9, 10, 11, 13, 14, 16, 17, 18 & 19 and related regulations in CAR 100, CAR OPS, CAR ORA, CAR 13, CAR 21, CAR 92, CAR M, CAR 145, CAR 139, CAR 171, CAR 172, CAR 174 and CAR 179.

Occurrence reports are a core data source used to inform the CAA decision and policy making, it also assists in setting State’s Strategic Safety Objectives and safety intelligence. Making frequent use of occurrence data helps to identify safety trends, hazards, risks and issues that have the potential to impact on the safety of the whole aviation system.

Occurrence reporting data once having reached maturity levels, can also be used to support numerous academic and aviation safety related studies through the provision of analysis and de-identified datasets. Organisations are encouraged to include occurrence reporting data bases within their Safety Management System.

1.2. Purpose

The Civil Aviation Directive(s) (CAD), hereinafter referred to as Directive(s), is issued by the Civil Aviation Authority of Oman, hereafter referred to as CAA. The Directives are a means of circulating essential information of an administrative or technical nature to aviation participants within the Sultanate of Oman, hereafter referred to as Oman. Organisations are required to ensure that prior to a person’s authorisation to report occurrences that relevant organizational qualification criteria to comply have been met.

In addition to reporting of safety occurrence to the Civil Aviation Authority and Oman Transport Safety Bureau, this directive also covers what qualifies to be a reportable occurrence, whose responsibility is it to report, what is the value of occurrence reports and how this data can be used to improve and contribute in developing the State Safety Program.

1.3. Applicability

This Directive applies to all Organisations and personnel licensed/regulated under the Oman Civil Aviation Authority who are required to report safety occurrences in accordance with the provisions in 1.1. Refer to definition of Organisations (1.7 (xiii)).

1.4. Application and Objectives

This Directive aims to improve aviation safety by ensuring safety information relating to civil aviation is reported, collected, stored, protected, exchanged, disseminated, analysed, assessed or investigated.

This Directive ensures:

- (i) that, where appropriate, safety action is taken in a timely manner based on analysis of the information collected;

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- (ii) the continued availability of safety information by introducing rules on confidentiality and on the appropriate use of information and through the harmonised and enhanced protection of reporters and persons mentioned in the occurrence reports; and
- (iii) that aviation safety risks are identified, analysed and mitigated.

The sole objective of occurrence reporting is the prevention of accidents and incidents, and not to attribute blame or liability.

1.5. Effective date

This CAD is effective from 1st August 2024.

1.6. Cancellation

The CAD shall be cancelled and replaced by a CAR.

1.7. Definitions

For the purposes of this Directive the following definitions apply:

- (i) **‘accident’** means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:
 - (a) a person is fatally or seriously injured as a result of:
 - being in the aircraft, or
 - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - direct exposure to jet blast,
 - 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 adversely affects the structural strength, performance or flight characteristics of the aircraft, and 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, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or 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;

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- (ii) **"Accident investigation authority"** The authority designated by a State as responsible for aircraft accident and incident investigations within the context of Annex 13 to the Convention on International Civil Aviation. The Sultanate of Oman delegates the role and responsibilities pertaining to the investigation of aircraft accidents and incidents within the Sultanate of Oman, or involving aircraft registered within the State, or Oman is the registered State of the Operator. This authority shall be known as the Oman Transport Safety Bureau (OTSB).
- (iii) **'aircraft'** means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;
- (iv) **'anonymisation'** means the removal from occurrence reports of all personal details relating to the reporter and to the persons mentioned in occurrence reports and any details, including the name of the organisation(s) involved in the occurrence, which may reveal the identity of the reporter or of a third party or lead to that information being inferred from the occurrence report;
- (v) **'Approved training organization (ATO)'** An organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of Annex 1 to perform approved training.
- (vi) **'Aviation Safety Plan'** means safety issues assessment and related action plan at National level;
- (vii) **'Dangerous Goods'** Articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those instructions.
- (viii) **'disidentified information'** means information arising from occurrence reports from which all personal data such as names or addresses of natural persons have been removed;
- (ix) **'E-Authority System'** is a Safety Oversight Software for designed for regulatory, compliance, productivity and efficiency. The single management solution is designed to increase efficiency of internal staff while giving real-time information to the management on a multi-platform dashboard.
- (x) **'hazard'** means a situation or an object with the potential to cause death or injury to a person, damage to equipment or a structure, loss of material, or a reduction of ability to perform a prescribed function;
- (xi) **'incident'** means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation;
- (xii) **'interested party'** means a natural or legal person or an official body, whether or not having its own legal personality, that is in a position to participate in the improvement of aviation safety by having access to information on occurrences exchanged by Contracting States and which fits within one of the categories of interested parties in Appendix II;
- (xiii) **'just culture'** means a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, willful violations and destructive acts are not tolerated;

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- (xiv) **‘occurrence’** means any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person and includes in particular an accident or serious incident;
- (xv) **‘organisation’** means any organisation an aircraft operator, service provider and/or providing aviation products and/or which employs, contracts or uses the services of persons required to report occurrences in accordance with 1.9(iv) including but not limited to:
- (a) All Civil Registered Aircraft (air operators) operating in or outside the territory of State of Registry;
 - (b) All non-State air operators operating State Registered Aircraft.
 - (c) OMAN CAA approved or certified organizations including:
 - Overseas organizations (CAMO, AMO, DOA, POA or AOC Holders) as applicable;
 - Recreation aviation aircraft (Such as Micro/Ultra-Light Sport Aircraft).
 - Approved Training Organizations.
 - Air Navigation Service Providers.
 - Certified Aerodromes
 - Certified Heliports
- (xvi) **‘point of contact’** means, where a request for information is made by an interested party established in a Contracting State, the CAA;
- (xvii) **‘reporter’** means a natural person who reports an occurrence or other safety-related information pursuant to this Regulation;
- (xviii) **‘safety investigation authority’** means Oman Transport Safety Bureau (OTSB), state civil aviation investigation authority conducting or supervising independent occurrence investigations;
- (xix) **‘safety management system’** means a systematic approach to managing aviation safety including the necessary organisational structures, accountabilities, policies and procedures, and includes any management system that, independently or integrated with other management systems of the organisation, addresses management of safety.
- (xx) **‘serious incident’** means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down.
- (xxi) **‘State Safety Programme’** means an integrated set of regulations and activities aimed at managing and improving civil aviation safety in the Oman;
- (xxii) **‘Unlawful Acts’** These are acts or attempted acts such as to jeopardize the safety of civil aviation, including but not limited to:

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- unlawful seizure of aircraft,
- destruction of an aircraft in service,
- hostage-taking on board aircraft or on aerodromes,
- forcible intrusion on board an aircraft, at an airport or on the premises of an aeronautical facility,
- introduction on board an aircraft or at an airport of a weapon or hazardous device or material intended for criminal purposes,
- use of an aircraft in service for the purpose of causing death, serious bodily injury, or serious damage to property or the environment,
- communication of false information such as to jeopardize the safety of an aircraft in flight or on the ground, of passengers, crew, ground personnel or the general public, at an airport or on the premises of a civil aviation facility.

(xxiii) **‘Unapproved Parts’** Unapproved aircraft parts are aircraft parts not approved by civil aviation authorities for installation on type certified aircraft.

1.8. Subject matter and scope

- (i) This Directive lays down rules on:
 - (a) the reporting of safety occurrences which endanger or which, if not corrected or addressed, would endanger an aircraft, its occupants, any other person, equipment or installation affecting aircraft operations; and the reporting of other relevant safety-related information in that context;
 - (b) analysis and follow-up action in respect of reported occurrences and other safety-related information;
 - (c) the protection of aviation professionals and reporters;
 - (d) the appropriate use of collected safety information;
 - (e) the dissemination of anonymised information to interested parties for the purpose of providing such parties with the information they need in order to improve aviation safety.
- (ii) This Directive applies to occurrences and safety-related information involving civil aircraft.

1.9. Mandatory reporting (MOR)

- (i) Occurrences which may represent a significant risk to aviation safety and which fall into the following categories and domains shall be reported by the persons listed in paragraph (v) through the mandatory occurrence reporting systems pursuant to this clause:
 - (a) Occurrences related to the operation of the aircraft, such as:
 - collision-related occurrences;
 - take-off and landing-related occurrences;
 - fuel-related occurrences;
 - in-flight occurrences;
 - communication-related occurrences;
 - occurrences related to injury, emergencies and other critical situations;
 - crew incapacitation and other crew-related occurrences;

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- meteorological conditions or security-related occurrences;
- (b) Occurrences related to technical conditions, maintenance and repair of aircraft, such as:
 - structural defects;
 - system malfunctions;
 - maintenance and repair problems;
 - propulsion problems (including engines, propellers and rotor systems) and auxiliary power unit problems;
- (c) Occurrences related to air navigation services and facilities, such as:
 - collisions, near collisions or potential for collisions;
 - specific occurrences of air navigation services (ANS);
 - ANS operational occurrences;
- (d) Occurrences related to aerodromes and ground services, such as:
 - occurrences related to aerodrome activities and facilities;
 - occurrences related to handling of passengers, baggage, mail and cargo;
 - occurrences related to aircraft ground handling and related services.
- (e) Occurrences related to aircraft other than complex motor-powered aircraft, including sailplanes and lighter-than-air vehicles.
- (f) Occurrences related to specific systems, such as:
 - Air conditioning/ventilation
 - Auto-flight system
 - Communications
 - Electrical system
 - Cockpit/Cabin/Cargo
 - Fire protection system
 - Flight controls
 - Fuel system
 - Hydraulics
 - Ice detection/protection system
 - Indicating/warning/recording systems
 - Landing gear system /brakes/tyres
 - Navigation systems (including precision approaches system) and air data systems
 - Oxygen system
 - Bleed air system
- (ii) Each organisation established in Oman shall establish a mandatory reporting system to facilitate collection of details of occurrences referred to in paragraph (i).
- (iii) The CAA and OTSB shall establish a mandatory reporting system to facilitate the collection of details of

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occurrences, including the collection of details of occurrences collected by organisations pursuant to paragraph (ii).

- (iv) Lists of occurrence classifications are mentioned below and the occurrence categories and domains to be referred to when reporting occurrences pursuant to paragraph (i) are provided in Appendix IV to VIII and Appendix IX, respectively.
 - (a) Accident
 - (b) Serious Incident
 - (c) Incident
 - (d) Dangerous Goods:
 - (e) Act of Unlawful interferences (AUIs):
 - (f) Unapproved Parts
- (v) The following natural persons shall report the occurrences referred to in paragraph (i) through the system established in accordance with paragraph (ii) by organisation which employs, contracts or uses services of the reporter or, failing that, through the system established in accordance with paragraph (iii) by Oman:
 - (a) the commander of an aircraft, whether registered or not under the Oman CAA, but operated by the holder of an Air Operator Certificate or ATO certificate issued by the CAA, or, in cases where the pilot in command is unable to report the occurrence, any other crew member next in the chain of command of an aircraft registered in Oman or an aircraft registered outside Oman but used by an operator established in Oman;
 - (b) a person engaged in designing, manufacturing, continuous airworthiness monitoring, maintaining or modifying an aircraft, or any equipment or part thereof, under the oversight of the CAA;
 - (c) a person who signs a certificate of maintenance review or a release to service in respect of an aircraft or equipment or part thereof, under the oversight of the CAA;
 - (d) a person who performs a function which requires him or her to be authorised by the CAA as a staff member of an air traffic service provider entrusted with responsibilities related to air navigation services or as a flight information service officer;
 - (e) a person who performs a function connected with the safety management of an airport;
 - (f) a person who performs a function connected with the installation, modification, maintenance, repair, overhaul, flight-checking or inspection of air navigation facilities for which are approved by the CAA
 - (g) a person who performs a function connected with the ground handling of aircraft, including fuelling, load-sheet preparation, loading, de-icing and towing at an aerodrome.
- (vi) It should be understood that, while the above items define those who have to report, anyone may report, should they consider it necessary. Persons should report any reportable occurrence of which they have positive knowledge, even if they have good reason to believe that appropriate details of the occurrence have already been, or will be, reported by someone else.

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- (vii) A report should also be submitted on any occurrence that involves an unsatisfactory condition, behavior or procedure, which did not immediately endanger the aircraft but if allowed to continue uncorrected, or if repeated in other foreseeable circumstances, would create a hazard to aircraft or individuals or property.
- (viii) The persons listed in paragraph (v) shall report occurrences in accordance with relevant regulations and not more than 72 hours of becoming aware of the occurrence, unless exceptional circumstances prevent this. The exceptional circumstances shall be formally informed to the CAA and OTSB and acceptable for compliance.
- (ix) Following notification of an occurrence, any organisation established in Oman shall report to CAA and OTSB, as referred to in 1.9, the details of occurrences collected in accordance with paragraph (ii), as soon as possible, and in any event no later than 72 hours after becoming aware of the occurrence.

1.10. Voluntary reporting

- (i) Each organisation established in Oman shall put in place a voluntary reporting system to facilitate the collection of:
 - (a) details of occurrences that may not be captured by the mandatory reporting system;
 - (b) other safety-related information which is perceived by the reporter as an actual or potential hazard to aviation safety.
- (ii) The CAA shall establish a voluntary reporting system to facilitate the collection of:
 - (a) details of occurrences that may not be captured by the mandatory reporting system;
 - (b) other safety-related information which is perceived by the reporter as an actual or potential hazard to aviation safety.
 - (c) That system shall also include, but shall not be limited to, the collection of information transferred by organisations pursuant to paragraph (vi).
- (iii) The voluntary reporting systems shall be used to facilitate the collection of details of occurrences and safety-related information:
 - (a) not subject to mandatory reporting pursuant to 1.9(i);
 - (b) reported by persons who may not be listed in 1.9(vi).
- (iv) Each organisation established in Oman shall, in a timely manner, report to the CAA, as designated pursuant to 1.11(iii), the details of occurrences and safety-related information which have been collected pursuant to paragraph (i) and which may involve an actual or potential aviation safety risk.
- (v) The CAA and approved organisations may establish other safety information collection and processing systems to collect details of occurrences that might not be captured by the reporting systems referred to in 1.9 and in paragraphs (i), (ii) and (iii).

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- (vi) Those systems may include reporting to entities other than those set out in 1.11(iii) and may involve the active participation of:
 - (a) the aviation industry;
 - (b) professional organisations of aviation staff.
- (vii) Information received from voluntary reporting may be integrated with the mandatory reporting into a single system.
- (viii) The system is also designed to accept anonymous reports. The following points are fundamental for the effectiveness of Voluntary Reporting Systems:
 - (a) Trust
 - (b) Non-punitive
 - (c) Ease of reporting
 - (d) Promotion
 - (e) Inclusive reporting base
 - (f) Confidentiality
 - (g) Acknowledgment

1.11. Collection and storage of information

- (i) Each organisation established in Oman shall designate one or more persons (ideally the Safety Manager or Safety Office) to handle independently the collection, evaluation, processing, analysis and storage of details of occurrences reported pursuant to 1.9. and 1.10.
- (ii) The handling of the reports shall be done with a view to preventing the use of information for purposes other than safety, and shall appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in occurrence reports, with the intent of promoting a 'just culture'.
- (iii) By agreement with the CAA, non-complex organisations may put in place a simplified mechanism for the collection, evaluation, processing, analysis and storage of details of occurrences. They may share those tasks with organisations of the same nature, while complying with the rules on confidentiality and protection pursuant to this Directive.
- (iv) The CAA shall establish a mechanism to collect, evaluate, process, analyse and store details of occurrences reported pursuant to 1.9. and 1.10, CAA Safety Database, within E-Authority.
- (v) Organisations who are currently reporting occurrences to CAA shall continue reporting occurrences by utilizing their existing internal reporting system and the new reporting system under E-Authority upon the agreement with the CAA
- (vi) Organisations who shall start reporting occurrences from the effective date of this Directive will report occurrences by utilizing this directive through the E-Authority.
- (vii) Regardless of the format, the form/ document shall contain all relevant data and information related to

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the safety occurrence experienced by the Organisation and comply with requirements in Appendix I. The form/ document shall be formally accepted by CAA.

- (viii) The handling of the reports shall be done with a view to preventing the use of information for purposes other than safety, unless the exceptional situations mentioned in 1.19 and shall appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in occurrence reports, with the intent of promoting a 'just culture'.
- (ix) Organisations shall store occurrence reports drawn up on the basis of details of occurrences collected in accordance with 1.9. and 1.10 in one or more databases.
- (x) The CAA shall store occurrence reports drawn up on the basis of details of occurrences collected in accordance with 1.9. and 1.10 in a CAA database.
- (xi) Relevant information on accidents and incidents collected or issued by safety investigation authorities shall be stored in the OTSB database, as well.
- (xii) The CAA shall have full access to the database referred to in paragraph (vii), (viii) and (x) for the purpose of discharging its responsibilities.

1.12. Quality and content of occurrence reports

- (i) Occurrence reports referred to in 1.11 shall contain at least the information listed in Appendix I.
- (ii) Occurrence reports referred to in paragraphs (ix) and (x) of 1.11 shall include a safety risk classification for the occurrence concerned. That classification shall be reviewed and if necessary amended, and shall be endorsed by the CAA, in accordance with the risk classification scheme referred to in paragraph (v).
- (iii) Organisations, and the CAA shall establish data quality checking processes to improve data consistency, notably between the information collected initially and the report stored in the database.
- (iv) The databases referred to in paragraphs (ix) and (x) of 1.11 shall use formats which are standardised to facilitate information exchange and compatible with the ADREP taxonomy.

Note: Common Hazard Taxonomy: (See ECCAIRS – ADREP Taxonomy) for complete list of hazard taxonomies which can be embedded within the occurrence reporting system
<https://www.icao.int/safety/airnavigation/aig/pages/adrep-taxonomies.aspx>

- (v) The CAA shall develop a common risk classification scheme to enable organisations, and the CAA to classify occurrences in terms of safety risk. In so doing, the CAA shall take into account the need for compatibility with existing risk classification schemes. This scheme is reflected in CAR 100.
- (vi) The CAA shall undertake the task of data integration to ensure:
 - (a) the integration of the minimum information referred to in paragraph (i);
 - (b) the risk classification of occurrences referred to in paragraph (ii); and
 - (c) the establishment of data quality checking processes referred to in paragraph (iii).

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- (vii) The CAA shall provide support as necessary to organisations in such a way as to contribute to the harmonisation of the data entry process, such as the provision of:
- (a) guidance material;
 - (b) workshops; and
 - (c) appropriate relevant training or forums.

1.13. Exchange of information

- (i) CAA shall participate in regional and global aviation safety information and exchange and facilitate the participation of their respective service providers as well as other relevant national authorities. All information relating to safety stored in the respective reporting databases must be available to other Contracting States, as appropriate. Occurrence reports shall be updated whenever necessary with additional information relating to safety.
- (ii) Information related to accidents and incidents shall also be updated and promulgated as in mentioned in CAR 13.

1.14. Dissemination of information stored in the safety-data repository

- (i) The CAA, within Oman shall have secure, full online access to information on occurrences contained in the safety-data repository. The information shall be used in accordance with 1.18 and 1.19.
- (ii) Interested parties listed in Appendix II may request access to certain information contained in the safety-data repository. Interested parties shall address requests for information to the point of contact of CAA.
- (iii) Information contained in the safety-data repository relating to ongoing safety investigations shall not be disclosed to interested parties pursuant to 1.14.

1.15. Processing of requests and decisions

- (i) Requests for information contained in the safety database shall be submitted using a formal application accepted by the CAA.
- (ii) The application shall contain at least the items set out in Appendix III.
- (iii) On receipt of an application, the CAA shall verify that the request is made by an interested party.
- (iv) The CAA shall evaluate on a case-by-case basis whether the request is justified and practicable. Information may be supplied to interested parties on paper or by using secure electronic means of communication.
- (v) Where the request is accepted, the CAA shall determine the amount and the level of information to be supplied. Without prejudice to 1.18 and 1.19, the information shall be limited to what is strictly required for the purpose of the request.

Information unrelated to the interested party's own equipment, operations or field of activity shall be

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supplied only in aggregated or anonymised documents. Information in non-aggregated documents may be provided to the interested party if it provides a detailed written justification. That information shall be used in accordance with 1.18 and 1.19.

- (vi) The CAA shall supply interested parties listed in point (b) of Appendix II only with information relating to the interested party's own equipment, operations or field of activity.
- (vii) On receiving a request from an interested party listed in point (a) of Appendix II, the CAA may take a general decision to supply information on a regular basis to that interested party, provided that:
 - (a) the information requested is related to the interested party's own equipment, operations or field of activity;
 - (b) the general decision does not grant access to the entire content of the database;
 - (c) the general decision relates only to anonymised information.
- (viii) The interested party shall use the information received pursuant to 1.15 subject to the following conditions:
 - (a) the interested party shall use the information only for the purpose specified in the request application, which should be compatible with the objective of this Directive as stated in 1.4; and
 - (b) the interested party shall not disclose the information received without the written consent of the information provider and shall take the necessary measures to ensure appropriate confidentiality of the information received.
- (ix) The decision to disseminate information pursuant to 1.15 shall be limited to what is strictly required for the purpose of its user.

1.16. Record of requests and exchange of information

The CAA shall record each request received and the action taken pursuant to that request.

1.17. Occurrence analysis and follow-up

- (i) Each organisation established in Oman shall develop a process to analyse occurrences collected in accordance with 1.9(ii) and 1.10(i) in order to identify the safety hazards associated with identified occurrences or groups of occurrences. Based on that analysis, each organisation shall determine any appropriate corrective or preventive action, required to improve aviation safety.
- (ii) When, following the analysis referred to in paragraph (i), an organisation identifies any appropriate corrective or preventive action required to address actual or potential aviation safety deficiencies, it shall:
 - (a) implement that action in a timely manner; and
 - (b) establish a process to monitor the implementation and effectiveness of the action.
- (iii) Each organisation established in Oman shall regularly provide its employees and contracted personnel with information concerning the analysis of, and follow-up on, occurrences for which preventive or

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corrective action is taken.

(iv) Where an organisation identifies an actual or potential aviation safety risk as a result of its analysis of occurrences or group of occurrences reported pursuant to 1.9(viii) and 1.10(vi), it shall transmit to the CAA, within 7 working days from the date of notification of the occurrence by the reporter:

- (a) preliminary results of the analysis performed pursuant to paragraph (i), if any; and
- (b) any action to be taken pursuant to paragraph (ii).

The organisation shall report the final results of the analysis, where required, as soon as they are available and, in principle, no later than 90 working days from the date of notification of the occurrence. The CAA may request organisations to transmit to it the preliminary or final results of the analysis of any occurrence of which it has been notified but in relation to which it has received no follow-up or only the preliminary results.

(v) The CAA shall develop a process to analyse the information relating to occurrences which are directly reported to it in accordance with 1.9(vi), 1.10(ii) and 1.10(iii) in order to identify the safety hazards associated with those occurrences. Based on that analysis, it shall determine any appropriate corrective or preventive action required to improve aviation safety.

(vi) When, following the analysis referred to in paragraph (v), the CAA identifies any appropriate corrective or preventive action required to address actual or potential aviation safety deficiencies, it shall:

- (a) implement that action in a timely manner; and
- (b) establish a process to monitor the implementation and effectiveness of the action.

(vii) For each occurrence or group of occurrences monitored in accordance with paragraph (iv), the CAA shall have access to the analysis made and shall appropriately monitor action taken by the organisations. If the CAA concludes that the implementation and the effectiveness of the reported action is inappropriate to address actual or potential safety deficiencies, it shall ensure that additional appropriate action is taken and implemented by the relevant organisation.

(viii) The CAA shall use information obtained from the analysis of occurrence reports to identify remedial action to be taken, if any, within the State Safety Programme.

(ix) In order to inform the public of the level of safety in civil aviation, the CAA shall publish a safety review at least once a year. The safety review shall:

- (a) contain aggregated and anonymised information on the type of occurrences and safety-related information reported through its national mandatory and voluntary reporting systems;
- (b) identify trends;
- (c) identify the action it has taken.

(x) The CAA may also publish anonymised occurrence reports and risk analysis outcomes.

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1.18. Confidentiality and appropriate use of information

- (i) The CAA and organisations shall take the necessary measures to ensure the appropriate confidentiality of the details of occurrences received by them pursuant to 1.9, 1.10 and 1.15. The CAA, and each organisation, shall process personal data only to the extent necessary for the purposes of this Directive and without prejudice to national law.
- (ii) Without prejudice to the provisions relating to the protection of safety information, information derived from occurrence reports shall be used only for the purpose for which it has been collected. The CAA and organisations shall not make available or use the information on occurrences:
 - (a) in order to attribute blame or liability; or
 - (b) for any purpose other than the maintenance or improvement of aviation safety.
- (iii) The CAA, and the competent authorities for the administration of justice in Oman should cooperate with each other through advance administrative arrangements. These advance administrative arrangements shall seek to ensure the correct balance between the need for proper administration of justice, on the one hand, and the necessary continued availability of safety information, on the other.

1.19. Protection of the information source

- (i) For the purposes of 1.19, 'personal details' includes in particular names or addresses of natural persons.
- (ii) Each organisation established in Oman shall ensure that all personal details are made available to staff of that organisation other than persons designated in accordance with 1.11 only where absolutely necessary in order to investigate occurrences with a view to enhancing aviation safety. Disidentified information shall be disseminated within the organisation as appropriate.
- (iii) The CAA shall ensure that no personal details are ever recorded in the database referred to in 1.11(x). Such disidentified information shall be made available to all relevant parties, for example to allow them to discharge their obligations in relation to aviation safety improvement.
- (iv) The CAA shall not be prevented from taking any action necessary for maintaining or improving aviation safety.
- (v) Without prejudice to applicable national criminal law, Oman shall refrain from instituting proceedings in respect of unpremeditated or inadvertent infringements of the law which come to its attention only because they have been reported pursuant to 1.9 and 1.10.

The first subparagraph shall not apply in cases referred to in paragraph (ix). The CAA may retain or adopt measures to strengthen the protection of reporters or persons mentioned in occurrence reports. The State may in particular apply this rule without exceptions referred to in paragraph (ix).
- (vi) If disciplinary or administrative proceedings are instituted under national law, information contained in occurrence reports shall not be used against:
 - (a) the reporters; or

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- (b) the persons mentioned in occurrence reports.
- (c) The first subparagraph shall not apply in the cases referred to in paragraph (ix).

The State may retain or adopt measures to strengthen the protection of reporters or persons mentioned in occurrence reports. The State may in particular extend that protection to civil or criminal proceedings.

- (vii) The State may adopt or maintain in force legislative provisions ensuring a higher level of protection for reporters or for persons mentioned in occurrence reports than those established in this Directive.
- (viii) Except where paragraph (ix) applies, employees and contracted personnel who report or are mentioned in occurrence reports collected in accordance with 1.9 and 1.10 shall not be subject to any prejudice by their employer or by the organisation for which the services are provided on the basis of the information supplied by the reporter.
- (ix) The protection under paragraphs (v), (vi) and (viii) shall not apply to any of the following situations, Exceptions to the protection of safety data, safety information and related sources shall only be granted when the CAA:
 - (a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, wilful misconduct or criminal activity;
 - (b) after reviewing the safety data or safety information, determines that its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information; or
 - (c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.

Note - In administering the decision, the competent authority takes into account the consent of the source of the safety data and safety information.

- (x) Each organisation shall, after consulting its staff representatives, adopt internal rules describing how 'just culture' principles, in particular the principle referred to in paragraph (viii), are guaranteed and implemented within that organisation. The CAA may ask to review the internal rules of the organisations before those internal rules are implemented. This review may, where appropriate, be undertaken in conjunction with the competent authorities for the administration of justice pursuant to 1.18.
- (xi) Employees and contracted personnel may report to the CAA alleged infringements of the rules established by 1.19. Employees and contracted personnel shall not be penalised for reporting alleged infringements. Where appropriate, the CAA shall advise the competent authorities for the administration of justice on matters concerning remedies or penalties in application of 1.20.

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1.20. Penalties

CAA may take appropriate enforcement measures in accordance with Civil Aviation Law (CAL) Chapter 13 and CAR 12, such as the imposition of limitations, the suspension or revocation of certificates, licenses, approvals, authorisations, the imposition of financial penalties for those who infringe the principles of protection of the reporter and of other persons mentioned in the occurrence reports.

1.21. Entry into force and application

This Directive shall enter into force on the 1st August 2024 and shall be applicable with immediate effect, from the publication date. This Directive shall be binding in its entirety.

Appendix I

(A) LIST OF REQUIREMENTS APPLICABLE TO THE MANDATORY AND VOLUNTARY OCCURRENCE REPORTING SCHEMES

Note: The data fields must be completed with the information requested. If it is not possible for the CAA to include that information because it has not been provided by the organisation or the reporter, the data field may be completed with the value 'unknown'. However, with a view to ensuring that the appropriate information is transmitted, use of that 'unknown' value should, to the best extent possible, be avoided, and the report should, where possible, be completed with the information later.

(1) COMMON MANDATORY DATA FIELDS

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

(i) Headline

- (a) Headline

(ii) Filing Information

- (a) Responsible Entity (e.g. Organization name, originator's name and ID, etc.)
- (b) File Number
- (c) Occurrence Status (Preliminary or Final Report)

(iii) When

- (a) UTC Time and Date

(iv) Where

- (a) State/Area of Occurrence
- (b) Location of Occurrence

(v) Classification

- (a) Occurrence Class
- (b) Occurrence Category ([See ECCAIRS – ADREP Taxonomy](#))

(vi) Narrative

- (a) Narrative Language
- (b) Description of occurrences includes:
 - Aircraft Registration Mark, Flight Details/ Aircraft configuration/ Maintenance Incidents/ Approval

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Reference (if relevant);

- Information necessary to identify the aircraft, crew or part affected;
- Date, time and route or location;
- Classification and categorization of events;
- A written short description of the incident including root cause identification, any immediate corrective measures/actions taken or planned.

Note: For any incident involving a system or component:

- If monitored or protected by a warning and/or protection system (for example: fire detection/extinguishing) the incident report should always state whether such system(s) functioned properly.
- Identification if its reliability is of concern as per the established reliability programme (if applicable).

(vii) Events

(a) Event Type

(viii) Risk classification

(2) SPECIFIC MANDATORY DATA FIELDS

2.1 Aircraft-related data fields

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

(i) Aircraft Identification

- (a) State of Registry
- (b) Make/Model/Series
- (c) Aircraft serial number
- (d) Aircraft Registration
- (e) Call sign

(ii) Aircraft Operation

- (a) Operator
- (b) Type of operation

(iii) Aircraft Description

- (a) Aircraft Category

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- (b) Propulsion Type
- (c) Mass Group
- (iv) History of Flight
 - (a) Last Departure Point
 - (b) Planned Destination
 - (c) Flight Phase
- (v) Weather
 - (a) Weather relevant

2.2 Data fields relating to air navigation services

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (i) ATM relation
 - (a) ATM contribution
 - (b) Service affected (effect on ATM service)
 - (c) Phase of Flight (*Flight Level*)
- (ii) ATS Unit Name
 - (a) Airspace and control positions
 - (b) Personnel involved
- (iii) Meteorological information
- (iv) CNS/ATM
 - (a) Communication system
 - (b) Navigation system
 - (c) Surveillance system
 - (d) ATM system

2.2.1. Separation Minima Infringement/Loss of Separation and Airspace Infringement- related data fields

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

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- (i) Airspace
 - (a) Airspace type
 - (b) Airspace class
 - (c) FIR/UIR name

2.3 Aerodrome-related data fields

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (i) Location Indicator (ICAO indicator of the airport)
- (ii) Location on the aerodrome
- (iii) Information relating to any vehicle involved (company/call sign etc.)
- (iv) Information relating to the Department and/or company of personnel involved

2.4 Aircraft damage or personal injury-related data fields

When entering information on every occurrence mandatorily reported and, to the best extent possible, every occurrence voluntarily reported, organisations and the CAA must ensure that occurrence reports recorded in their databases contain at least the following information:

- (i) Severity
 - (a) Highest Damage
 - (b) Injury Level
- (ii) Injuries to persons
 - (a) Number of injuries on ground (fatal, serious, minor)
 - (b) Number of injuries on aircraft (fatal, serious, minor)

Note: Common Hazard Taxonomy: (See ECCAIRS – ADREP Taxonomy):

- a) Aims to improve Hazard Identification by taking pre-emptive action to prevent similar incidents occurring in the future.
- b) Analysis of safety data and producing safety information to enable data driven decision making (D3M).
- c) Encourage aviation industry to follow a common reporting scheme to ensure harmonization.
- d) Ease the establishment of Safety Data and Information Exchange Platforms.

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Appendix II

(A) INTERESTED PARTIES

- (i) List of interested parties which may receive information on the basis of a case-by-case decision under 1.15(iv) or on the basis of a general decision under 1.15(vii):
 - (a) Manufacturers: designers and manufacturers of aircraft, engines, propellers and aircraft parts and appliances, and their respective associations; designers and manufacturers of air traffic management (ATM) systems and constituents; designers and manufacturers of systems and constituents for air navigation services (ANS); designers and manufacturers of systems and equipment used on the air side of aerodromes.
 - (b) Maintenance: organisations involved in the maintenance or overhaul of aircraft, engines, propellers and aircraft parts and appliances; in the installation, modification, maintenance, repair, overhaul, flight checking or inspection of air navigation facilities; or in the maintenance or overhaul of aerodrome air side systems, constituents and equipment.
 - (c) Operators: airlines and operators of aircraft and associations of airlines and operators; aerodrome operators and associations of aerodrome operators.
 - (d) Air navigation services providers and providers of ATM-specific functions.
 - (e) Aerodrome service providers: organisations in charge of ground handling of aircraft, including fuelling, loadsheet preparation, loading, de-icing and towing at an aerodrome, as well as rescue and firefighting, or other emergency services.
 - (f) Aviation training organisations and Approved Maintenance Training Organisation.
 - (g) Third-country organisations: governmental aviation authorities and accident investigation authorities from third countries.
 - (h) International aviation organisations.
 - (i) Research: public or private research laboratories, centres or entities; or universities engaged in aviation safety research or studies.
- (ii) List of interested parties which may receive information on the basis of a case-by-case decision under 1.15(iv) and (v):
 - (a) Pilots (on a personal basis).
 - (b) Air traffic controllers (on a personal basis) and other ATM/ANS staff carrying out safety-related tasks.
 - (c) Engineers/technicians/air traffic safety electronic personnel/aviation (or aerodrome) managers (on a personal basis).
 - (d) Professional representative bodies of staff carrying out safety-related tasks.

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Appendix III

(A) REQUEST FOR INFORMATION FROM THE CAA SAFETY DATABASE

When interested parties (Appendix II) request for information they must ensure, to include:

- (i) Name:
- (ii) Function/position:
- (iii) Company:
- (iv) Address:
- (v) Tel.:
- (vi) E-mail:
- (vii) Date:
- (viii) Nature of business:
- (ix) Category of interested party (see Appendix II on the reporting, analysis and follow-up of occurrences in civil aviation):
- (x) Information requested (please be as specific as possible; include the relevant date/period in which you are interested):
- (xi) Reason for the request:
- (xii) Explain the purpose for which the information will be used:
- (xiii) Date by which the information is requested:
- (xiv) The completed form should be sent, via e-mail, to: (point of contact within relevant oversight areas)
- (xv) Date, place and signature.

Important Note:

- (a) Access to information: The CAA Oman is not required/ obliged to supply any requested information. It may do so only if it is confident that the request is compatible with CAA Regulations. The requestor commits itself and its organisation to restrict the use of the information to the purpose it has described under point (xii). It is also recalled that information provided on the basis of this request is made available only for the purposes of flight safety, and not for other purposes such as, in particular, attributing blame or liability or for commercial purposes.
- (b) The requestor is not allowed to disclose information provided to it to anyone without the written consent of the CAA.
- (c) Failure to comply with these conditions may lead to a refusal of access to further information from the CAA and, where applicable, to the imposition of penalties.

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Appendix IV

(A) OCCURRENCES RELATED TO THE OPERATION OF THE AIRCRAFT

Remark: This Appendix is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(1) AIR OPERATIONS

(i) Flight preparation

- (a) Use of incorrect data or erroneous entries into equipment used for navigation or performance calculations which has or could have endangered the aircraft, its occupants or any other person.
- (b) Carriage or attempted carriage of dangerous goods in contravention of applicable legislations including incorrect labelling, packaging and handling of dangerous goods.

(ii) Aircraft preparation

- (a) Incorrect fuel type or contaminated fuel.
- (b) Missing, incorrect or inadequate De-icing/Anti-icing treatment.

(iii) Take-off and landing

- (a) Taxiway or runway excursion.
- (b) Actual or potential taxiway or runway incursion.
- (c) Final Approach and Take-off Area (FATO) incursion.
- (d) Any rejected take-off.
- (e) Inability to achieve required or expected performance during take-off, go-around or landing.
- (f) Actual or attempted take-off, approach or landing with incorrect configuration setting.
- (g) Tail, blade/wingtip or nacelle strike during take-off or landing.
- (h) Approach continued against air operator stabilised approach criteria.
- (i) Continuation of an instrument approach below published minimums with inadequate visual references.
- (j) Precautionary or forced landing.
- (k) Short and long landing.
- (l) Hard landing.

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(iv) Any phase of flight

- (a) Loss of control.
- (b) Aircraft upset, exceeding normal pitch attitude, bank angle or airspeed inappropriate for the conditions.
- (c) Level bust.
- (d) Activation of any flight envelope protection, including stall warning, stick shaker, stick pusher and automatic protections.
- (e) Unintentional deviation from intended or assigned track of the lowest of twice the required navigation performance or 10 nautical miles.
- (f) Exceedance of aircraft flight manual limitation.
- (g) Operation with incorrect altimeter setting.
- (h) Jet blast or rotor and prop wash occurrences which have or could have endangered the aircraft, its occupants or any other person.
- (i) Misinterpretation of automation mode or of any flight deck information provided to the flight crew which has or could have endangered the aircraft, its occupants or any other person.

(v) Other types of occurrences

- (a) Unintentional release of cargo or other externally carried equipment.
- (b) Loss of situational awareness (including environmental, mode and system awareness, spatial disorientation, and time horizon).
- (c) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.
- (d) Passenger Safety (e.g. Injury, Medical Condition, Birth, Death, etc.)

(2) TECHNICAL OCCURRENCES

(i) Structure and systems

- (a) Loss of any part of the aircraft structure in flight.
- (b) Loss of a system.
- (c) Loss of redundancy of a system.
- (d) Leakage of any fluid which resulted in a fire hazard or possible hazardous contamination of aircraft structure, systems or equipment, or which has or could have endangered the aircraft, its occupants or any other person.

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- (e) Fuel system malfunctions or defects, which had an effect on fuel supply and/or distribution.
 - (f) Malfunction or defect of any indication system when this results in misleading indications to the crew.
 - (g) Abnormal functioning of flight controls such as asymmetric or stuck/jammed flight controls (for example: lift (flaps/slats), drag (spoilers), attitude control (ailerons, elevators, reversers, rudder devices).
- (ii) Propulsion (including engines, propellers and rotor systems) and auxiliary power units (APUs)
- (a) Failure or significant malfunction of any part or controlling of a propeller, rotor or powerplant.
 - (b) Damage to or failure of main/tail rotor or transmission and/or equivalent systems.
 - (c) Flameout, in-flight shutdown of any engine or APU when required (for example: ETOPS (Extended range Twin engine aircraft Operations), MEL (Minimum Equipment List)).
 - (d) Engine operating limitation exceedance, including overspeed or inability to control the speed of any high-speed rotating component (for example: APU, air starter, air cycle machine, air turbine motor, propeller or rotor).
 - (e) Failure or malfunction of any part of an engine, powerplant, APU or transmission resulting in any one or more of the following:
 - thrust-reversing system failing to operate as commanded;
 - inability to control power, thrust or rpm (revolutions per minute);
 - non-containment of components/debris.
- (3) INTERACTION WITH AIR NAVIGATION SERVICES (ANS) AND AIR TRAFFIC MANAGEMENT (ATM)**
- (i) Unsafe ATC (Air Traffic Control) clearance.
 - (ii) Prolonged loss of communication with ATS (Air Traffic Service) or ATM Unit.
 - (iii) Conflicting instructions from different ATS Units potentially leading to a loss of separation.
 - (iv) Misinterpretation of radio-communication which has or could have endangered the aircraft, its occupants or any other person.
 - (v) Intentional deviation from ATC instruction which has or could have endangered the aircraft, its occupants or any other person.
 - (vi) ATC equipment and navigation aids failure.

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(4) EMERGENCIES AND OTHER CRITICAL SITUATIONS

- (i) Any event leading to the declaration of an emergency ('Mayday' or 'PAN call').
- (ii) Any burning, melting, smoke, fumes, arcing, overheating, fire or explosion.
- (iii) Contaminated air in the cockpit or in the passenger compartment which has or could have endangered the aircraft, its occupants or any other person.
- (iv) Failure to apply the correct non-normal or emergency procedure by the flight or cabin crew to deal with an emergency.
- (v) Use of any emergency equipment or non-normal procedure affecting in-flight or landing performance.
- (vi) Failure of any emergency or rescue system or equipment which has or could have endangered the aircraft, its occupants or any other person.
- (vii) Uncontrollable cabin pressure.
- (viii) Critically low fuel quantity or fuel quantity at destination below required final reserve fuel.
- (ix) Any use of crew oxygen system by the crew.
- (x) Incapacitation of any member of the flight or cabin crew that results in the reduction below the minimum certified crew complement.
- (xi) Crew fatigue impacting or potentially impacting their ability to perform safely their flight duties.

(5) EXTERNAL ENVIRONMENT AND METEOROLOGY

- (i) A collision or a near collision on the ground or in the air, with another aircraft, terrain or obstacle (*).
- (ii) ACAS RA (Airborne Collision Avoidance System, Resolution Advisory).
- (iii) Activation of genuine ground collision system such as GPWS (Ground Proximity Warning System)/TAWS (Terrain Awareness and Warning System) 'warning'.
- (iv) Wildlife strike including bird strike.
- (v) Foreign object damage/debris (FOD).
- (vi) Unexpected encounter of poor runway surface conditions.
- (vii) Wake-turbulence encounters.
- (viii) Interference with the aircraft by firearms, fireworks, flying kites, laser illumination, high powered lights, lasers, Remotely Piloted Aircraft Systems, model aircraft or by similar means.
- (ix) A lightning strike which resulted in damage to the aircraft or loss or malfunction of any aircraft system.

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- (x) A hail encounter which resulted in damage to the aircraft or loss or malfunction of any aircraft system.
- (xi) Severe turbulence encounter or any encounter resulting in injury to occupants or deemed to require a 'turbulence check' of the aircraft.
- (xii) A significant wind shear or thunderstorm encounter which has or could have endangered the aircraft, its occupants or any other person.
- (xiii) Icing encounter resulting in handling difficulties, damage to the aircraft or loss or malfunction of any aircraft system.
- (xiv) Volcanic ash encounter.

(6) SECURITY

- (i) Unlawful Interference (Bomb Threat, Hijack, etc.)
- (ii) Difficulty in controlling intoxicated, violent or unruly passengers.
- (iii) Discovery of a stowaway.

(*) Obstacle includes vehicle.

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Appendix V

(A) OCCURRENCES RELATED TO TECHNICAL CONDITIONS, MAINTENANCE AND REPAIR OF THE AIRCRAFT

(1) MANUFACTURING

Products, parts or appliances released from the production organisation with deviations from applicable design data that could lead to a potential unsafe condition as identified with the holder of the type-certificate or design approval.

(2) DESIGN

Any failure, malfunction, defect or other occurrence related to a product, part, or appliance which has resulted in or may result in an unsafe condition.

Remark: This list is applicable to occurrences occurring on a product, part, or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, TSO authorisation, major repair design approval or any other relevant approval deemed to have been issued under CAR 21 (currently relevant Subpart F, G, J, N & O are reserved).

(3) MAINTENANCE AND CONTINUING AIRWORTHINESS MANAGEMENT

- (i) Serious structural damage (for example: cracks, permanent deformation, delamination, debonding, burning, excessive wear, or corrosion) found during maintenance of the aircraft or component.
- (ii) Serious leakage or contamination of fluids (for example: hydraulic, fuel, oil, gas or other fluids).
- (iii) Failure or malfunction of any part of an engine or powerplant and/or transmission resulting in any one or more of the following:
 - (a) non-containment of components/debris;
 - (b) failure of the engine mount structure.
- (iv) Damage, failure or defect of propeller, which could lead to in-flight separation of the propeller or any major portion of the propeller and/or malfunctions of the propeller control.
- (v) Damage, failure or defect of main rotor gearbox/attachment, which could lead to in-flight separation of the rotor assembly and/or malfunctions of the rotor control.
- (vi) Significant malfunction of a safety-critical system or equipment including emergency system or equipment during maintenance testing or failure to activate these systems after maintenance.
- (vii) Incorrect assembly or installation of components of the aircraft found during an inspection or test procedure not intended for that specific purpose.
- (viii) Wrong assessment of a serious defect, or serious non-compliance with MEL and Technical logbook procedures.

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- (ix) Serious damage to Electrical Wiring Interconnection System (EWIS).
- (x) Any defect in a life-controlled critical part causing retirement before completion of its full life.
- (xi) The use of products, components or materials, from unknown, suspect origin, or unserviceable critical components.
- (xii) Misleading, incorrect or insufficient applicable maintenance data or procedures that could lead to significant maintenance errors, including language issue.
- (xiii) Incorrect control or application of aircraft maintenance limitations or scheduled maintenance.
- (xiv) Releasing an aircraft to service from maintenance in case of any non-compliance which endangers the flight safety.
- (xv) Serious damage caused to an aircraft during maintenance activities due to incorrect maintenance or use of inappropriate or unserviceable ground support equipment that requires additional maintenance actions.
- (xvi) Identified burning, melting, smoke, arcing, overheating or fire occurrences.
- (xvii) Any occurrence where the human performance, including fatigue of personnel, has directly contributed to or could have contributed to an accident or a serious incident.
- (xviii) Significant malfunction, reliability issue, or recurrent recording quality issue affecting a flight recorder system (such as a flight data recorder system, a data link recording system or a cockpit voice recorder system) or lack of information needed to ensure the serviceability of a flight recorder system.

Note: For additional information refer to EASA AMC 20-8A General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances.

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Appendix VI

(A) OCCURRENCES RELATED TO AIR NAVIGATION SERVICES AND FACILITIES

Remark: This Appendix is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(B) AIRCRAFT-RELATED OCCURRENCES

- (i) A collision or a near collision on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (*), including near-controlled flight into terrain (near CFIT).
- (ii) Separation minima infringement (**).
- (iii) Inadequate separation (***).
- (iv) ACAS RAs.
- (v) Wildlife strike including bird strike.
- (vi) Taxiway or runway excursion.
- (vii) Actual or potential taxiway or runway incursion.
- (viii) Final Approach and Take-off Area (FATO) incursion.
- (ix) Aircraft deviation from ATC clearance.
- (x) Aircraft deviation from applicable air traffic management (ATM) regulation:
 - (a) Aircraft deviation from applicable published ATM procedures;
 - (b) Airspace infringement including unauthorised penetration of airspace;
 - (c) Deviation from aircraft ATM-related equipment carriage and operations, as mandated by applicable regulations.
- (xi) Call sign confusion related occurrences.

(C) DEGRADATION OR TOTAL LOSS OF SERVICES OR FUNCTIONS

- (i) Inability to provide ATM services or to execute ATM functions.
 - (a) Inability to provide air traffic services or to execute air traffic services functions.
 - (b) Inability to provide airspace management services or to execute airspace management functions.
 - (c) Inability to provide air traffic flow management and capacity services or to execute air traffic flow management and capacity functions.
- (ii) Missing or significantly incorrect, corrupted, inadequate or misleading information from any support service (****), including relating to poor runway surface conditions.
- (iii) Failure of communication service.

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- (iv) Failure of surveillance service.
- (v) Failure of data processing and distribution function or service.
- (vi) Failure of navigation service.
- (vii) Failure of ATM system security which had or could have a direct negative impact on the safe provision of service.
- (viii) Significant ATS sector/position overload leading to a potential deterioration in service provision.
- (ix) Incorrect receipt or interpretation of significant communications, including lack of understanding of the language used, when this had or could have a direct negative impact on the safe provision of service.
- (x) Prolonged loss of communication with an aircraft or with other ATS unit.

(D) OTHER OCCURRENCES

- (i) Declaration of an emergency ('Mayday' or 'PAN' call).
- (ii) Significant external interference with Air Navigation Services (for example radio broadcast stations transmitting in the FM band, interfering with ILS (instrument landing system), VOR (VHF Omni Directional Radio Range) and communication).
- (iii) Interference with an aircraft, an ATS unit or a radio communication transmission including by firearms, fireworks, flying kites, laser illumination, high-powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or by similar means.
- (iv) Fuel dumping.
- (v) Bomb threat or hijack.
- (vi) Fatigue impacting or potentially impacting the ability to perform safely the air navigation or air traffic duties.
- (vii) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.

(*) **Obstacle includes vehicle.**

(**) **This refers to a situation in which prescribed separation minima were not maintained between aircraft or between aircraft and airspace to which separation minima is prescribed.**

(***) **In the absence of prescribed separation minima, a situation in which aircraft were perceived to pass too close to each other for pilots to ensure safe separation.**

(****) **For example: air traffic service (ATS), automatic terminal information service (ATIS), meteorological services, navigation databases, maps, charts, aeronautical information service (AIS), manuals.**

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Appendix VII

(A) OCCURRENCES RELATED TO AERODROMES AND GROUND SERVICES

(1) SAFETY MANAGEMENT OF AN AERODROME

Remark: This Section is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

- (i) Aircraft- and obstacle-related occurrences
 - (a) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (*).
 - (b) Wildlife strike including bird strike.
 - (c) Taxiway or runway excursion.
 - (d) Actual or potential taxiway or runway incursion.
 - (e) Final Approach and Take-off Area (FATO) incursion or excursion.
 - (f) Aircraft or vehicle failure to follow clearance, instruction or restriction while operating on the movement area of an aerodrome (for example: wrong runway, taxiway or restricted part of an aerodrome).
 - (g) Foreign object on the aerodrome movement area which has or could have endangered the aircraft, its occupants or any other person.
 - (h) Presence of obstacles on the aerodrome or in the vicinity of the aerodrome which are not published in the AIP (Aeronautical Information Publication) or by NOTAM (Notice to Airmen) and/or that are not marked or lighted properly.
 - (i) Push-back, power-back or taxi interference by vehicle, equipment or person.
 - (j) Passengers or unauthorised person left unsupervised on apron.
 - (k) Jet blast, rotor down wash or propeller blast effect.
 - (l) Declaration of an emergency ('Mayday' or 'PAN' call).
 - (m) Undershoot or Overshoot.
- (ii) Degradation or total loss of services or functions
 - (a) Loss or failure of communication between:
 - Aerodrome, vehicle or other ground personnel and air traffic services unit or apron

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management service unit;

- Apron management service unit and aircraft, vehicle or air traffic services unit.

- (b) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants.
- (c) Significant deficiencies in aerodrome lighting, marking or signs.
- (d) Failure of the aerodrome emergency alerting system.
- (e) Rescue and firefighting services not available according to applicable requirements.

(iii) Other occurrences

- (a) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person.
- (b) Aerodrome security related occurrences (example: unlawful entry, sabotage, bomb threat).
- (c) Absence of reporting of a significant change in aerodrome operating conditions which has or could have endangered the aircraft, its occupants or any other person.
- (d) Missing, incorrect or inadequate de-icing/anti-icing treatment.
- (e) Significant spillage during fuelling operations.
- (f) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water).
- (g) Failure to handle poor runway surface conditions.
- (h) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.

(2) GROUND HANDLING OF AN AIRCRAFT

Remark: This Section is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(i) Aircraft- and aerodrome-related occurrences

- (a) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (*).
- (b) Runway or taxiway incursion.

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- (c) Runway or taxiway excursion.
- (d) Significant contamination of aircraft structure, systems and equipment arising from the carriage of baggage, mail or cargo.
- (e) Push-back, power-back or taxi interference by vehicle, equipment or person.
- (f) Foreign object on the aerodrome movement area which has or could have endangered the aircraft, its occupants or any other person.
- (g) Passengers or unauthorised person left unsupervised on apron.
- (h) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person.
- (i) Aerodrome security-related occurrences (for example: unlawful entry, sabotage, bomb threat).
- (ii) Degradation or total loss of services or functions
 - (a) Loss or failure of communication with aircraft, vehicle, air traffic services unit or apron management service unit.
 - (b) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants.
 - (c) Significant deficiencies in aerodrome lighting, marking or signs.
- (iii) Ground handling specific occurrences
 - (a) Incorrect handling or loading of passengers, baggage, mail or cargo, likely to have a significant effect on aircraft mass and/or balance (including significant errors in loadsheets calculations).
 - (b) Boarding equipment removed leading to endangerment of aircraft occupants.
 - (c) Incorrect stowage or securing of baggage, mail or cargo likely in any way to endanger the aircraft, its equipment or occupants or to impede emergency evacuation.
 - (d) Transport, attempted transport or handling of dangerous goods which resulted or could have resulted in the safety of the operation being endangered or led to an unsafe condition (for example: dangerous goods incident or accident as defined in the ICAO Technical Instructions (**)).
 - (e) Non-compliance on baggage or passenger reconciliation.
 - (f) Non-compliance with required aircraft ground handling and servicing procedures, especially in de-icing, refuelling or loading procedures, including incorrect positioning or removal of equipment.
 - (g) Significant spillage during fuelling operations.
 - (h) Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance,

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performance, balance or structural strength.

- (i) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water).
- (j) Failure, malfunction or defect of ground equipment used for ground handling, resulting into damage or potential damage to the aircraft (for example: tow bar or GPU (Ground Power Unit)).
- (k) Missing, incorrect or inadequate de-icing/anti-icing treatment.
- (l) Damage to aircraft by ground handling equipment or vehicles including previously unreported damage.
- (m) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident.

(*) Obstacle includes vehicle.

() Technical Instructions for The Safe Transport of Dangerous Goods by Air
(ICAO - Doc 9284).**

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Appendix VIII

(A) OCCURRENCES RELATED TO AIRCRAFT OTHER THAN COMPLEX MOTOR-POWERED AIRCRAFT, INCLUDING SAILPLANES AND LIGHTER-THAN-AIR VEHICLES

(1) AIRCRAFT OTHER THAN COMPLEX MOTOR-POWERED AIRCRAFT EXCLUDING SAILPLANES AND LIGHTER-THAN-AIR VEHICLES

Remark: This Section is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(i) Air operations

- (a) Unintentional loss of control.
- (b) Landing outside of intended landing area.
- (c) Inability or failure to achieve required aircraft performance expected in normal conditions during take-off, climb or landing.
- (d) Runway incursion.
- (e) Runway excursion.
- (f) Any flight which has been performed with an aircraft which was not airworthy, or for which flight preparation was not completed, which has or could have endangered the aircraft, its occupants or any other person.
- (g) Unintended flight into IMC (Instrument Meteorological Conditions) conditions of aircraft not IFR (Instrument flight rules) certified, or a pilot not qualified for IFR, which has or could have endangered the aircraft, its occupants or any other person.
- (h) Unintentional release of cargo (*).

(i) Aircraft deviation from ATC clearance.

(ii) Technical occurrences

- (a) Abnormal severe vibration (for example: aileron or elevator 'flutter', or of propeller).
- (b) Any flight control not functioning correctly or disconnected.
- (c) A failure or substantial deterioration of the aircraft structure.
- (d) A loss of any part of the aircraft structure or installation in flight.
- (e) A failure of an engine, rotor, propeller, fuel system or other essential system.
- (f) Leakage of any fluid which resulted in a fire hazard or possible hazardous contamination of

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aircraft structure, systems or equipment, or risk to occupants.

(iii) Interaction with air navigation services and air traffic management

(a) Interaction with air navigation services (for example: incorrect services provided, conflicting communications or deviation from clearance) which has or could have endangered the aircraft, its occupants or any other person.

(b) Airspace infringement.

(iv) Emergencies and other critical situations

(a) Any occurrence leading to an emergency call.

(b) Fire, explosion, smoke, toxic gases or toxic fumes in the aircraft.

(c) Incapacitation of the pilot leading to inability to perform any duty.

(v) External environment and meteorology

(i) A collision on the ground or in the air, with another aircraft, terrain or obstacle(**).

(ii) A near collision, on the ground or in the air, with another aircraft, terrain or obstacle (**) requiring an emergency avoidance maneuver to avoid a collision.

(iii) Wildlife strike including bird strike which resulted in damage to the aircraft or loss or malfunction of any essential service.

(iv) Interference with the aircraft by firearms, fireworks, flying kites, laser illumination, high powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or by similar means.

(v) A lightning strike resulting in damage to or loss of functions of the aircraft.

(vi) Severe turbulence encounter which resulted in injury to aircraft occupants or in the need for a post-flight turbulence damage check of the aircraft.

(vii) Icing including carburettor icing which has or could have endangered the aircraft, its occupants or any other person.

(2) SAILPLANES (GLIDERS)

Remark: This Section is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(i) Air operations

(a) Unintentional loss of control.

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- (b) An occurrence where the sailplane pilot was unable to release either the winch cable or the aerotow rope and had to do so using emergency procedures.
 - (c) Any release of the winch cable or the aerotow rope if the release has or could have endangered the sailplane, its occupants or any other person.
 - (d) In the case of a powered sailplane, an engine failure during take-off.
 - (e) Any flight which has been performed with a sailplane which was not airworthy, or for which an incomplete flight preparation has or could have endangered the sailplane, its occupants or any other person.
- (ii) Technical occurrences
- (a) Abnormal severe vibration (for example: aileron or elevator 'flutter', or of propeller).
 - (b) Any flight control not functioning correctly or disconnected.
 - (c) A failure or substantial deterioration of the sailplane structure.
 - (d) A loss of any part of the sailplane structure or installation in flight.
- (iii) Interaction with air navigation services and air traffic management
- (a) Interaction with air navigation services (for example: incorrect services provided, conflicting communications or deviation from clearance) which has or could have endangered the sailplane, its occupants or any other person.
 - (b) Airspace infringements.
- (iv) Emergencies and other critical situations
- (a) Any occurrence leading to an emergency call.
 - (b) Any situation where no safe landing area remains available.
 - (c) Fire, explosion, smoke, or toxic gases or fumes in the sailplane.
 - (d) Incapacitation of the pilot leading to inability to perform any duty.
- (v) External environment and meteorology
- (a) A collision on the ground or in the air, with an aircraft, terrain or obstacle(**).
 - (b) A near collision, on the ground or in the air, with an aircraft, terrain or obstacle(**) requiring an emergency avoidance maneuver to avoid a collision.
 - (c) Interference with the sailplane by firearms, fireworks, flying kites, laser illumination, high powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or by similar means.
 - (d) A lightning strike resulting in damage to the sailplane.

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(3) LIGHTER-THAN-AIR VEHICLES (BALLOONS AND AIRSHIPS)

Remark: This Section is structured in such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(i) Air operations

- (a) Any flight which has been performed with a lighter-than-air vehicle which was not airworthy, or for which an incomplete flight preparation has or could have endangered the lighter-than-air vehicle, its occupants or any other person.

- (b) Unintended permanent extinction of the pilot light.

(ii) Technical occurrences

- (a) Failure of any of the following parts or controls: dip tube on fuel cylinder, envelope pulley, control line, tether rope, valve seal leak on burner, valve seal leak on fuel cylinder, carabiner, damage to fuel line, lifting gas valve, envelope or ballonnet, blower, pressure relief valve (gas balloon), winch (tethered gas balloons).

- (b) Significant leakage or loss of lifting gas (for example: porosity, unsealed lifting gas valves).

(iii) Interaction with air navigation services and air traffic management

- (a) Interaction with air navigation services (for example: incorrect services provided, conflicting communications or deviation from clearance) which has or could have endangered the lighter-than-air vehicle, its occupants or any other person.

- (b) Airspace infringement.

(iv) Emergencies and other critical situations

- (a) Any occurrence leading to an emergency call.
- (b) Fire, explosion, smoke or toxic fumes in the lighter-than-air vehicle (beyond the normal operation of the burner).
- (c) Lighter-than-air vehicle's occupants ejected from basket or gondola.
- (d) Incapacitation of the pilot leading to inability to perform any duty.
- (e) Unintended lift or drag of ground crew, leading to fatality or injury of a person.

(v) External environment and meteorology

- (a) A collision or near collision on the ground or in the air, with an aircraft, terrain or obstacle (**) which has or could have endangered the lighter-than-air vehicle, its occupants or any other person.

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- (b) Interference with the lighter-than-air vehicle by firearms, fireworks, flying kites, laser illumination, high powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or by similar means.
- (c) Unexpected encounter of adverse weather conditions which has or could have endangered the lighter-than-air vehicle, its occupants or any other person.

(*) This item applies only to commercial operations.

() Obstacle includes vehicle.**

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Appendix IX

(A) LIST OF EXAMPLES OF OCCURRENCES BY DOMAIN

Remark: This Appendix is prepared in accordance with RAFG-MID SAFETY ADVISORY – 17 (First Edition: RSA-17); ISSUED ON 7TH November 2022; MID-Region, Guidance Material for Occurrence Reporting concerning CAA personnel on establishing an effective operation of Mandatory and Voluntary Reporting Systems. It is structured such a way that the pertinent occurrences are linked with categories of activities during which they are normally observed, according to experience, in order to facilitate the reporting of those occurrences. However, this presentation must not be understood as meaning that occurrences must not be reported in case they take place outside the category of activities to which they are linked in the list.

(I) AIRCRAFT FLIGHT OPERATIONS

(1) Operation of the Aircraft

(i) Aircraft maneuver:

- (a) Risk of collision with an aircraft, terrain or other object or an unsafe situation when avoidance action would have been appropriate.
- (b) An avoidance maneuver required to avoid a collision with an aircraft, terrain or other object.
- (c) An avoidance maneuver to avoid other unsafe situations.

(ii) Take-off or landing incidents, including precautionary or forced landings.

(iii) Incidents such as under-shooting, over running or running off the side of runways.

(iv) Take-offs, rejected take-offs, landings or attempted landings on a closed, occupied or incorrect runway.

(v) Inability to achieve predicted performance during take-off or initial climb.

(vi) Critically low fuel quantity or inability to transfer fuel or use total quantity of usable fuel.

(vii) Loss of control (including partial or temporary loss of control) from any cause.

(viii) Incident close to or above V1 resulting from or producing a hazardous or potentially hazardous situation (e.g. tail strike, engine power loss, rejected take-off etc.).

(ix) Go-around/Missed Approach producing a hazardous or potentially hazardous situation including rejected landing.

(x) Unintentional significant deviation from airspeed, intended track or altitude (more than 300ft) from any cause.

(xi) Descent below decision height/altitude or minimum descent height/altitude without the required visual reference.

(xii) Loss of position awareness relative to actual position or to other aircraft.

(xiii) Breakdown in communication between flight crew (CRM) or between Flight crew and other parties (cabin crew, ATC, engineering).

(xiv) Heavy/hard landing - a landing deemed to require a 'heavy landing check'.

(xv) Exceedance of fuel imbalance limits.

(xvi) Incorrect setting of an SSR code or of an altimeter subscale.

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- (xvii) Incorrect programming of, or erroneous entries into, equipment used for navigation or performance calculations, or use of incorrect data.
- (xviii) Incorrect receipt or interpretation of radiotelephony messages.
- (xix) Fuel system malfunctions or defects, which had an effect on fuel supply and/or distribution.
- (xx) Aircraft unintentionally departing a paved surface.
- (xxi) Collision between an aircraft and any other aircraft, vehicle or other ground object.
- (xxii) Inadvertent and/or incorrect operation of any controls.
- (xxiii) Inability to achieve the intended aircraft configuration for any flight phase (e.g. landing gear and doors, flaps, stabilisers, slats etc.).
- (xxiv) A hazard or potential hazard which arises as a consequence of any deliberate simulation of failure conditions for training, system checks or training purposes.
- (xxv) Abnormal vibration.
- (xxvi) Operation of any primary warning system associated with manoeuvring of the aircraft e.g. configuration warning, stall warning (stick shake), over speed warning etc. unless:
 - (a) the crew conclusively established that the indication was false.
 - (b) provided that the false warning did not result in difficulty or hazard arising from the crew response to the warning; or
 - (c) operated for training or test purposes.
- (xxvii) GPWS/TAWS 'warning' when:
 - (a) aircraft comes into closer proximity to the ground than had been planned or anticipated; or
 - (b) the warning is experienced in IMC or at night and is established as having been triggered by a high rate of descent (Mode 1); or
 - (c) the warning results from failure to select landing gear or landing flap by the appropriate point on the approach (Mode 4); or
 - (d) any difficulty or hazard arises or might have arisen as a result of crew response to the 'warning' e.g. possible reduced separation from other traffic. This could include warning of any Mode or Type i.e. genuine, nuisance or false.
- (xxviii) GPWS/TAWS 'alert' when any difficulty or hazard arises or might have arisen as a result of crew response to the 'alert'.
- (xxix) TCAS/ ACAS RAs.
- (xxx) Jet or prop blast incidents resulting in significant damage or serious injury.
- (xxxi) Taxiway incursion/Runway incursion.
- (xxxii) Laser interference incidents.
- (xxxiii) Unstable approach reported by pilots or analyzed through FDM program.

(2) Emergencies

- (i) Fire, explosion, smoke or toxic or noxious fumes, even though fires were extinguished.
- (ii) The use of any non-standard procedure by the flight or cabin crew to deal with an emergency when:
 - (a) the procedure exists but is not used; or
 - (b) a procedure does not exist; or

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- (c) the procedure exists but is incomplete or inappropriate; or
- (d) the procedure is incorrect; or
- (e) the incorrect procedure is used.
- (iii) Inadequacy of any procedures designed to be used in an emergency, including when being used for maintenance, training or test purposes.
- (iv) An event leading to an emergency evacuation
- (v) Depressurization events.
- (vi) The use of any emergency equipment or prescribed emergency procedures in order to deal with a situation.
- (vii) An event leading to the declaration of an emergency ('Mayday' or 'Pan Pan').
- (viii) Failure of any emergency system or equipment, including all exit doors and lighting, to perform satisfactorily, including when being used for maintenance, training or test purposes.
- (ix) Events requiring any emergency use of oxygen by any crew member.
- (3) Crew Incapacitation
 - (i) Incapacitation of any member of the flight crew, including that which occurs prior to departure if it is considered that it could have resulted in incapacitation after take-off.
 - (ii) Incapacitation of any member of the cabin crew which renders them unable to perform essential emergency duties.
- (4) Aircrew Fatigue
 - (i) A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties.
 - (ii) Fatigue is a major human factor hazard because it affects most aspects of a crewmember's ability to do their job. It therefore has implications for safety.
 - (iii) For example, crew member reports on fatigue due to an incident happened on the aircraft and it is believed that fatigue is considered to be the main reason for the occurrence of such incident.
- (5) Emergencies
 - (i) Fire, explosion, smoke or toxic or noxious fumes, even though fires were extinguished.
 - (ii) The use of any non-standard procedure by the flight or cabin crew to deal with an emergency when:
 - (a) the procedure exists but is not used; or
 - (b) a procedure does not exist; or
 - (c) the procedure exists but is incomplete or inappropriate; or
 - (d) the procedure is incorrect; or
 - (e) the incorrect procedure is used.
 - (iii) Inadequacy of any procedures designed to be used in an emergency, including when being used for maintenance, training or test purposes.
 - (iv) An event leading to an emergency evacuation

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- (v) Depressurization events.
 - (vi) The use of any emergency equipment or prescribed emergency procedures in order to deal with a situation.
 - (vii) An event leading to the declaration of an emergency ('Mayday' or 'Pan Pan').
 - (viii) Failure of any emergency system or equipment, including all exit doors and lighting, to perform satisfactorily, including when being used for maintenance, training or test purposes.
 - (ix) Events requiring any emergency use of oxygen by any crew member.
- (6) Crew Incapacitation
- (i) Incapacitation of any member of the flight crew, including that which occurs prior to departure if it is considered that it could have resulted in incapacitation after take-off.
 - (ii) Incapacitation of any member of the cabin crew which renders them unable to perform essential emergency duties.
- (7) Aircrew Fatigue
- (i) A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties.
 - (ii) Fatigue is a major human factor hazard because it affects most aspects of a crewmember's ability to do their job. It therefore has implications for safety.
 - (iii) For example, crew member reports on fatigue due to an incident happened on the aircraft and it is believed that fatigue is considered to be the main reason for the occurrence of such incident.
- (8) Injury
- (i) An incident, which have or could have led to significant injury to passengers or crew but which are not considered reportable as an accident under ANNEX 13.
- (9) Meteorology
- (i) A lightning strike which resulted in damage to the aircraft or loss or malfunction of any essential service.
 - (ii) A hail strike which resulted in damage to the aircraft or loss or malfunction of any essential service.
 - (iii) Severe turbulence encounters resulting in injury to occupants or deemed to require a 'turbulence check' of the aircraft.
 - (iv) A wind shear encounter.
 - (v) Icing encounter resulting in handling difficulties, damage to the aircraft or loss or malfunction of any essential service.
- (10) Security
- (i) Unlawful interference with the aircraft including a bomb threat or hijack.
 - (ii) Difficulty in controlling intoxicated, violent or unruly passengers.
 - (iii) Discovery of a stowaway.

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(11) Aerodrome and Aerodrome Facilities

- (i) Significant spillage during fueling operations.
- (ii) Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance or structural strength.
- (iii) Unsatisfactory ground de-icing / anti-icing.

(12) Passenger Handling, Baggage and Cargo

- (i) Significant contamination of aircraft structure, or systems and equipment arising from the carriage of baggage or cargo.
- (ii) Incorrect loading of passengers, baggage or cargo, likely to have a significant effect on aircraft mass and/or balance.
- (iii) Incorrect stowage of baggage or cargo (including hand baggage) likely in any way to hazard the aircraft, its equipment or occupants or to impede emergency evacuation.
- (iv) Inadequate stowage of cargo containers or other substantial items of cargo.
- (v) Dangerous goods incidents.

(13) Aircraft Ground Handling and Servicing

- (i) Failure, malfunction or defect of ground equipment used for test or checking of aircraft systems and equipment when the required routine inspection and test procedures did not clearly identify the problem when this results in a hazardous situation.
- (ii) Noncompliance or significant errors in compliance with required servicing procedures.
- (iii) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen and potable water).

(14) Other incidents

- (i) Repetitive instances of a specific type of incident which in isolation would not be considered 'reportable' but which due to the frequency at which they arise, form a potential hazard.
- (ii) Bird strike that may have or may have not resulted in damage to the aircraft or loss or malfunction of any essential service.
- (iii) Note: All bird strike incidents shall be reported in the Bird Strike & Wildlife Hazard module of the ROSI system.
- (iv) Wake turbulence encounters.
- (v) Any other incident of any type considered to have endangered or which might have endangered the aircraft or its occupants on board the aircraft or on the ground.

(II) AIRCRAFT TECHNICAL

(1) Structural

Not all structural failures need to be reported. Engineering judgement is required to decide whether a failure is serious enough to be reported. The following examples can be taken into consideration:

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- (i) Damage to a Principal Structural Element that has not been qualified as damage tolerant (life limited element). Principal Structural Elements are those which contribute significantly to carrying flight, ground, and pressurization loads, and whose failure could result in a catastrophic failure of the aircraft. Typical examples of such elements are listed for large aircrafts in 14 CFR AC 25.571(a) “damage tolerance and fatigue evaluation of structure”, EASA AMC to CS25.571 (a) and in equivalent AMC material for rotorcraft.
- (ii) Defect or damage exceeding admissible damages to a Principal Structural Element that has been qualified as damage tolerant.
- (iii) Damage to or defect exceeding allowed tolerances of a structural element which failure could reduce the structural stiffness to such an extent that the required flutter, divergence or control reversal margins are no longer achieved.
- (iv) Damage to or defect of a structural element, which could result in the liberation of items of mass that may injure occupants of the aircraft.
- (v) Damage to or defect of a structural element, which could jeopardise proper operation of systems. See paragraph II.B. below
- (vi) Loss of any part of the aircraft structure in flight.

(2) Systems

The following generic criteria applicable to all systems are proposed:

- (i) Loss, significant malfunctions or defects of any system, subsystem or set of equipment when standard operating procedures, drills etc. could not be satisfactorily accomplished.
- (ii) Inability of the crew to control the system, e.g.:
 - (a) uncommented actions;
 - (b) incorrect and or incomplete response, including limitation of movement or stiffness;
 - (c) runaway;
 - (d) Mechanical disconnection or failure.
- (iii) Failure or malfunction of the exclusive function(s) of the system (one system could integrate several functions).
- (iv) Interference within or between systems.
- (v) Failure or malfunction of the protection device or emergency system associated with the system.
- (vi) Loss of redundancy of the system.
- (vii) Any incident resulting from unforeseen behaviour of a system.
- (viii) For aircraft types with single main systems, subsystems or sets of equipment: Loss, significant malfunctions or defects in any main system, subsystem or set of equipment.
- (ix) For aircraft types with multiple independent main systems, subsystems or sets of equipment: The loss, significant malfunctions, or defects of more than one main system, subsystem or set of equipment

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- (x) Operation of any primary warning system associated with aircraft systems or equipment unless the crew conclusively established that the indication was false provided that the false warning did not result in difficulty or hazard arising from the crew response to the warning.
 - (xi) Leakage of hydraulic fluids, fuel, oil or other fluids which resulted in a fire hazard or possible hazardous contamination of aircraft structure, systems or equipment, or risk to occupants.
 - (xii) Malfunction or defect of any indication system when this results in the possibility of misleading indications to the crew.
 - (xiii) Any failure, malfunction or defect if it occurs at a critical phase of flight and relevant to the operation of that system.
 - (xiv) Incidents of significant shortfall of the actual performances compared to the approved performance which resulted in a hazardous situation (taking into account the accuracy of the performance calculation method) including braking action, fuel consumption etc.
 - (xv) Asymmetry of flight controls; e.g. flaps, slats, spoilers etc.
- (3) Propulsion (including Engines, Propellers and Rotor Systems) and APUs
- (i) Flameout, shutdown or malfunction of any engine.
 - (ii) Over speed or inability to control the speed of any high speed rotating component (for example: Auxiliary power unit, air starter, air cycle machine, air turbine motor, propeller or rotor).
 - (iii) Failure or malfunction of any part of an engine or power plant resulting in any one or more of the following:
 - (a) Non-containment of components/debris;
 - (b) Un-controlled internal or external fire, or hot gas breakout;
 - (c) Thrust in a different direction from that demanded by the pilot;
 - (d) Thrust reversing system failing to operate or operating inadvertently;
 - (e) Inability to control power, thrust or rpm;
 - (f) Failure of the engine mount structure;
 - (g) Partial or complete loss of a major part of the power plant;
 - (h) Dense visible fumes or concentrations of toxic products sufficient to incapacitate crew or passengers;
 - (i) Inability, by use of normal procedures, to shutdown an engine;
 - (j) Inability to restart a serviceable engine.
 - (iv) An un-commanded thrust/power loss, change or oscillation which is classified as a loss of thrust or power control (LOTC):
 - (a) For a single engine aircraft; or
 - (b) Where it is considered excessive for the application, or
 - (c) Where this could affect more than one engine in a multi-engine aircraft, particularly in the case of a twin-engine aircraft; or
 - (d) For a multi engine aircraft where the same, or similar, engine type is used in an application where the event would be considered hazardous or critical.
 - (v) Any defect in a life-controlled part causing retirement of before completion of its full life.

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- (vi) Defects of common origin which could cause an inflight shut down rate so high that there is the possibility of more than one engine being shut down on the same flight.
- (vii) An engine limiter or control device failing to operate when required or operating inadvertently.
- (viii) Exceedance of engine parameters.
- (ix) FOD resulting in damage.
- (x) Propellers and –transmission: Failure or malfunction of any part of a propeller or power plant resulting in any one or more of the following:
 - (a) An overspeed of the propeller;
 - (b) The development of excessive drag;
 - (c) A thrust in the opposite direction to that commanded by the pilot;
 - (d) A release of the propeller or any major portion of the propeller;
 - (e) A failure that results in excessive unbalance;
 - (f) The unintended movement of the propeller blades below the established minimum in-flight low- pitch position;
 - (g) An inability to feather the propeller;
 - (h) An inability to command a change in propeller pitch;
 - (i) An un-commanded change in pitch;
 - (j) An uncontrollable torque or speed fluctuation;
 - (k) The release of low energy parts.
- (xi) Rotors and-transmission
 - (a) Damage or defect of main rotor gearbox/ attachment which could lead to in-flight separation of the rotor assembly, and / or modifications of the rotor control.
 - (b) Damage to tail rotor, transmission and equivalent systems.
- (xii) APU's
 - (a) Shut down or failure when the APU is required to be available by operational requirements, e.g. ETOPS, MEL.
 - (b) Inability to shut down the APU.
 - (c) Over speed.
 - (d) Inability to start the APU when needed for operational reasons.
- (4) Human Factors
 - (i) Any incident where any feature or inadequacy of the aircraft design could have led to an error of use that could contribute to a hazardous or catastrophic effect.
- (5) Other Incidents
 - (i) Any incident where any feature or inadequacy of the aircraft design could have led to an error of use that could contribute to a hazardous or catastrophic effect.
 - (ii) An incident not normally considered as reportable (for example, furnishing and cabin equipment, water systems), where the circumstances resulted in endangering of the aircraft or its occupants.
 - (iii) A fire, explosion, smoke or toxic or noxious fumes.

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- (iv) Any other event which could affect the safety of the aircraft/occupants of the aircraft, or people or property in the vicinity of the aircraft or on the ground.
- (v) Failure or defect of passenger address system resulting in loss or inaudible passenger address system.
- (vi) Loss of pilots' seat control during flight.

(III) AIRCRAFT MAINTENANCE AND REPAIR

- (1) Incorrect assembly of parts or components of the aircraft found during an inspection or test procedure not intended for that specific purpose.
- (2) Hot bleed air leak resulting in structural damage.
- (3) Any defect in a lift-controlled part causing retirement before completion of its full life.
- (4) Any damage or deterioration (i.e. fractures, cracks, corrosion, delaminating, dis-bonding etc.) resulting from any cause (such as flutter, loss of stiffness or structural failure) to;
 - (i) Primary structure or a principal structural element (as defined in the manufacturers' Repair manual) where such damage or deterioration exceeds allowable limits specified in the Repair Manual and requires a repair or complete or partial replacement of the element;
 - (ii) Secondary structure which consequently has or may have endangered the aircraft;
 - (iii) The engine, propeller or rotorcraft rotor system.
- (5) Any failure, malfunction or defect of any system or equipment, or damage or deterioration found as a result of compliance with an Airworthiness Directive or other mandatory instruction issued by a Regulatory Authority, when;
 - (i) It is detected for the first time by the reporting organization implementing compliance;
 - (ii) On any subsequent compliance where it exceeds the permissible limits quoted in the instruction and/or published repair/rectification procedures are not available.
- (6) Failure of any emergency system or equipment, including all exit doors and lighting, to perform satisfactorily, including when being used for maintenance or test purposes.
- (7) Non-compliance or significant errors in compliance with required maintenance procedures.
- (8) Suspected unapproved Products, parts, appliances and materials (Safety Alert 05-2014).
- (9) Misleading, incorrect or insufficient maintenance data or procedures that could lead to maintenance errors.
- (10) Failure, malfunction or defect of ground equipment used for test or checking of aircraft systems and equipment when the required routine inspection and test procedures did not clearly identify the problem when this results in a hazardous situation.

(IV) AIR NAVIGATION SERVICES PROVIDERS

This list is in no way exhaustive and any occurrence which is believed to be a flight safety issue shall be reported.

- (1) ACAS Event: An incident where a resolution advisory event (RA) did or may have occurred.

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- (2) AIRPROX: A situation in which, in the opinion of a pilot or air traffic services 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.
 - (i) Risk of collision. The risk classification of an aircraft proximity in which serious risk of collision has existed
 - (ii) Safety not assured. The risk classification of an aircraft proximity in which the safety of the aircraft may have been compromised.
 - (iii) No risk of collision. The risk classification of an aircraft proximity in which no risk of collision has existed.
 - (iv) Risk not determined. The risk classification of an aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.
- (3) ASMI Category A: An incident in which a reduction in required ATC separation occurs where the separation remaining is 25% or less of the required minimum, regardless of whether or not corrective action or an evasive response to avoid a collision was taken.
- (4) ASMI Category B: An incident in which a reduction in required ATC separation occurs where the separation remaining is 26% up to and including 50% of the required minimum and no ATC action is taken, or the initial action to resolve the situation was determined by the pilot or ACAS.
- (5) ASMI Category C: An incident in which a reduction in required separation occurs where:
 - (i) The separation remaining is 26% up to and including 50% of the required minimum and ATC resolved the situation; or
 - (ii) The separation remaining is 51% up to and including 75% of the required minimum and no ATC action is taken, or the initial action to resolve the situation was determined by the pilot or ACAS.
- (6) ASMI Category D: An incident in which a reduction in required separation occurs where:
 - (i) The separation remaining is 51% up to but not including 90% of the required minimum and ATC resolved the situation; or
 - (ii) The separation remaining is 76% or more and no ATC action is taken, or the pilot or ACAS resolved the situation.
- (7) ASMI Category E: An incident in which a reduction in required separation occurs where the separation remaining is 90% or more of the required minimum and ATC resolved the situation.
- (8) Airspace Penetration (CTA/CTR/SUA) without Clearance or Approval: An incident where an aircraft enters civil or military controlled airspace or SUA without clearance or proper authorization.
- (9) Apron Incident: An incident reported to ATC where the flight safety of an aircraft was or may have been affected on the apron area.
- (10) ATC Coordination Error: An incident where the coordination between ATC Sectors or units is not completed correctly, where the ATC coordination failure affected flight safety.
- (11) ATC Operational Issue: An incident, not resulting in any other category, where incorrect ATCO actions or ATC procedures affected, or may have affected flight safety.

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- (12) ATS/AD Equipment Failure: An incident where there is a failure or irregularity of ATS or Aerodrome communication, navigation or surveillance systems or any other safety-significant systems or equipment which could adversely affect the safety or efficiency of flight operations and/or the provision of an air traffic control service.
- (13) Communications Failure: An incident where an aircraft experiences a total or partial communications failure.
- (14) Deviations from ATC Clearance (not including a Level Bust): An incident where an aircraft fails to comply with any component of an ATC clearance, excluding a cleared altitude or flight level.
- (15) Emergency (other than Engine Failure or Fuel Shortage): An incident, excluding an accident, security event, engine failure, fuel emergency or medical emergency, where a pilot declares an emergency, Mayday or Pan.
- (16) Engine Failure: An incident where a pilot reports he has experienced an engine failure during takeoff, in flight or landing, or reports that he has shut down an engine due to a technical problem.
- (17) Flight Planning Error: An incident where a flight planning error has been reported which may affect the safety of a flight.
- (18) FOD: An incident involving FOD detected on a runway including reported tyre bursts from aircraft which have recently operated on a runway.
 - (i) Category A: FOD which is likely to cause damage to an aircraft on a runway or runway shoulder;
 - (ii) Category B: FOD which is likely to cause damage to an aircraft found within runway strip or RESA;
 - (iii) Category C: FOD which is likely to cause damage to an aircraft on taxiways or taxiway shoulders;
 - (iv) Category D: FOD which is likely to cause damage to an aircraft found on the taxiway strips, apron areas or elsewhere on the airfield.
- (19) Fuel Emergence: An incident where a pilot reports he is experiencing a minimum fuel situation which requires an emergency declaration.
- (20) Go-Around Event: Any go- around event, except where an aircraft intentionally goes around for training purposes.
- (21) Level Bust:
 - (i) Category A: An incident where an aircraft deviates from an assigned level by 800 feet or more, and there was no loss of separation.
 - (ii) Category B: An incident where an aircraft deviates from an assigned level by 600 or 700 feet and there was no loss of separation.
 - (iii) Category C: An incident where an aircraft deviates from an assigned level by 400 or 500 feet, and there was no loss of separation.
 - (iv) Category D: An incident where an aircraft deviates from an assigned level by 300 feet or less and there was no loss of separation.
- (22) Loss of Runway Separation Category A: An incident in which a reduction in required runway separation occurs where:
 - (i) A collision is narrowly avoided; or

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- (ii) The separation remaining is 25% or less of the required minimum, regardless of whether or not corrective action or an evasive response to avoid a collision was taken.
- (23) Loss of Runway Separation Category B: An incident in which a reduction in required runway separation occurs where:
 - (i) A significant potential for collision which may result in a time-critical corrective evasive response to avoid a collision; or
 - (ii) The separation remaining is 26% up to and including 50% of the required minimum, and no ATC action is taken, or the initial action to resolve the situation was determined by the pilot.
- (24) Loss of Runway Separation Category C: An incident in which a reduction in required runway separation occurs where:
 - (i) There is ample time or distance to avoid a potential collision; or
 - (ii) The separation remaining is 26% up to and including 50% of the required minimum, and ATC resolved the situation; or
 - (iii) The separation remaining is 51% or more of the required minimum and no ATC action is taken, or the initial action to resolve the situation was determined by the pilot.
- (25) Loss of Runway Separation Category D: An incident in which a reduction in required runway separation occurs where:
 - (i) The separation remaining is 51% or more of the required minimum and ATC resolved the situation; or
 - (ii) An aircraft is in receipt of a landing or take-off clearance, while another aircraft is on the runway, and the initial action to resolve the situation was determined by the pilot.
- (26) LSALT/Terrain Event: An incident where an IFR aircraft is flown below a Lowest Safe Altitude (LSALT) or an ATC Minimum Radar Vectoring Altitude (MRVA)
- (27) LVP Violations: An incident where an aircraft conducts an operation when RVR, Met visibility and/or cloud base conditions are below the required approach minima or the aerodrome operator minima.
- (28) Maneuvering Area Excursion:
 - (i) Category A: An incident in which an aircraft has an excursion from a runway – i.e. overruns, excursion off the side of the runway – resulting in damage to aircraft
 - (ii) Category B: An incident in which an aircraft has an excursion from a taxiway – excursion off the side of the taxiway – resulting in damage to aircraft
 - (iii) Category C: An incident in which an aircraft has an excursion from a runway – i.e. overruns, excursion off the side of the runway – resulting in no damage to aircraft
 - (iv) Category D: An incident in which an aircraft has an excursion from a taxiway- excursion off the side of the taxiway – resulting in no damage to aircraft.
- (29) Medical Emergency: An incident where a pilot reports a medical emergency requiring a diversion or priority track or landing due to a sick or injured passenger or crew member.
- (30) Military Due Regard Event: An incident where actions of a military aircraft under limited civil ATC control results in a situation where flight safety in controlled airspace is or may have been compromised.

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- (31) Non-compliance with climb gradient: An incident where an aircraft fails to comply with the published minimum departure climb gradient requirement.
- (32) Operator complaint or operational issue (not resulting in any other category): An incident involving:
 - (i) A direct operational related complaint or query received from an operator or State; or
 - (ii) An ATC issue with an operator
- (33) Runway Incursion Category A: A serious incident in which a collision is narrowly avoided.
- (34) Runway Incursion Category B: A runway incursion in which the separation decreases and there is a significant potential for collision, which may result in a time-critical corrective/evasive response to avoid a collision. This includes a runway incursion occurring while a departing aircraft has commenced its take-off roll or an arriving aircraft has crossed the threshold.
- (35) Runway Incursion Category C: A runway incursion characterized by ample time and/or distance to avoid a collision, including a runway incursion occurring while a departing aircraft has been cleared to line up, or cleared for take-off or an arriving aircraft has been cleared to land but has not crossed the threshold.
- (36) Runway Incursion Category D: A runway incursion that meets the definition of a runway incursion such as the incorrect presence of a vehicle, person or aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.
- (37) Runway Incursion Category E: Insufficient information or inconclusive or conflicting evidence precludes a severity assessment.
- (38) Runway Operation Incident An incident occurring on a runway, where operational safety was or may have been affected, excluding a runway incursion, such as
 - (i) an aircraft conducts an operation on a runway without proper authority, e.g. conducting a take-off or landing on an operational or closed runway without a clearance; or
 - (ii) attempting a take-off or landing from a taxiway not approved for such an operation.
- (39) Security Event: An incident involving a security event relating to an aircraft, which may adversely affect flight safety, such as a Hijack, Bomb Warning or an unruly passenger, which results in a request for a priority diversion or landing, or the attendance to an aircraft by security personnel.
- (40) Taxiway Incursions
- (41) Technical Problem: An incident excluding a declared emergency where a pilot reports an aircraft technical problem.
- (42) Visual Hazard Report: An incident where a pilot or ATC unit becomes aware of a situation involving a light source, including laser, spotlights or pyrotechnics, where flight safety was or may have been compromised.
- (43) Wake Turbulence Event: An incident relating to a pilot's report of turbulence, or its effects, from another aircraft's wake, excluding a reduction of required wake turbulence separation.

(V) AERODROMES

- (1) Maneuvering Area Excursion - Category A - An incident in which an aircraft has an excursion from a runway – i.e. overruns, excursion off the side of the runway – resulting in damage to aircraft.

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- (2) Maneuvering Area Excursion - Category B - An incident in which an aircraft has an excursion from a taxiway – excursion off the side of the taxiway – resulting in damage to aircraft.
- (3) Maneuvering Area Excursion - Category C - An incident in which an aircraft has an excursion from a runway – i.e. overruns, excursion off the side of the runway – resulting in no damage to aircraft.
- (4) Maneuvering Area Excursion - Category D - An incident in which an aircraft has an excursion from a taxiway – excursion off the side of the taxiway – resulting in no damage to aircraft.
- (5) FOD Category A - FOD which is likely to cause damage to an aircraft on runway or runway shoulder.
- (6) FOD Category B - FOD which is likely to cause damage to an aircraft found within runway strip or RESA.
- (7) Aircraft Damage Category A - Destroyed – Aircraft is unlikely to ever fly again – total write off.
- (8) Aircraft Damage Category B - Substantially Damaged – Major damage that prevents the aircraft from flight until significant maintenance is undertaken.
- (9) Aircraft Damage Category C - Minor Damage – Minor damage that prevents the aircraft from immediate flight and requires some maintenance to rectify.
- (10) Runway Incursion - Category A - A serious incident in which a collision is narrowly avoided.
- (11) Runway Incursion - Category B - A Runway Incursion incident in which the separation decreases and there is a significant potential for collision, which may result in a time critical corrective / evasive response to avoid a collision, including a runway incursion occurring while a departing aircraft has commenced its take-off roll or an arriving aircraft has crossed the threshold.
- (12) Runway Incursion - Category C - A Runway Incursion incident characterised by ample time and/or distance to avoid a collision, including a runway incursion occurring while a departing aircraft has been cleared to line up, or cleared for take-off, or an arriving aircraft has been cleared to land but has not crossed the threshold.
- (13) Runway Incursion - Category D - A Runway Incursion incident that meets the definition of a runway incursion such as the incorrect presence of a single vehicle, person or aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.
- (14) Bird & Wildlife Hazard - Category A - An incident where a pilot experiences wildlife striking an aircraft resulting in significant damage to the aircraft and or requiring an aborted take-off, in-flight diversion, prioritized landing or resulting in an accident.
- (15) Bird & Wildlife Hazard - Category B - An incident where a pilot reports an actual or potential wildlife strike, which does not result in significant damage or adversely affect the flight.
- (16) Bird & Wildlife Hazard - Category C - An incident where dead wildlife is found on the runway when a strike has not been reported by a pilot.
- (17) Taxiway Incursion Category A: A Taxiway Incursion incident in which there is a potential for collision with an aircraft, which results in a corrective/evasive response to avoid a collision.
- (18) Taxiway Incursion Category B: A Taxiway Incursion incident that meets the definition of a taxiway incursion such as the incorrect presence of a vehicle, person or aircraft on the taxiway or within the taxiway strip with no safety consequence.

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(VI) REPORTABLE INCIDENT TO SPECIFIC SYSTEMS

The following subparagraphs give examples of reportable incidents resulting from the application of the generic criteria to specific systems:

- (1) Air conditioning/ventilation
 - (i) Complete loss of avionics cooling;
 - (ii) depressurization
- (2) Auto-flight system
 - (i) Failure of the auto-flight system to achieve the intended operation while engaged
 - (ii) Significant reported crew difficulty to control the aircraft linked to auto-flight system functioning
 - (iii) Failure of any auto-flight system disconnect device
 - (iv) Un-commanded auto-flight mode change
- (3) Communications
 - (i) Failure or defect of Passenger Address System resulting in loss or inaudible passenger address;
 - (ii) Total loss of communication in flight.
- (4) Electrical system
 - (i) loss of one electrical system distribution system (AC or DC)
 - (ii) total loss or loss or more than one electrical generation system
 - (iii) failure of the backup (emergency) electrical generating system
- (5) Cockpit/Cabin/Cargo
 - (i) Pilot seat control loss during flight;
 - (ii) Failure of any emergency system or equipment, including emergency evacuation signalling system, all exit doors, emergency lighting, etc.;
 - (iii) Loss of retention capability of the cargo loading system.
- (6) Fire protection system
 - (i) Fire warnings, except those immediately confirmed as false;
 - (ii) Undetected failure or defect of fire/smoke detection/protection system, which could lead to loss or reduced fire detection/protection;
 - (iii) Absence of warning in case of actual fire or smoke.
- (7) Flight controls
 - (i) Asymmetry of flaps, slats, spoilers etc.;
 - (ii) Limitation of movement, stiffness or poor or delayed response in the operation of primary flight control systems or their associated tab and lock systems;
 - (iii) Flight control surface run away;
 - (iv) Flight control surface vibration felt by the crew;
 - (v) Mechanical flight control disconnection or failure;
 - (vi) Significant interference with normal control of the aircraft or degradation of flying qualities;

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- (8) Fuel system
 - (i) fuel quantity indicating system malfunction resulting in total loss or erroneous indicated fuel quantity on board;
 - (ii) leakage of fuel which resulted in major loss, fire hazard , significant contamination;
 - (iii) malfunction or defects of the fuel jettisoning system which resulted in inadvertent loss of significant quantity, fire hazard, hazardous contamination of aircraft equipment or inability to jettison fuel;
 - (iv) fuel system malfunctions or defects which had a significant effect on fuel supply and/or distribution;
 - (v) inability to transfer or use total quantity of usable fuel;
- (9) Hydraulics
 - (i) loss of one hydraulic system (ETOPS only)
 - (ii) failure of the isolation system to operate
 - (iii) loss of more than one hydraulic circuits
 - (iv) failure of the backup hydraulic system
 - (v) inadvertent Ram Air Turbine extension
- (10) Ice detection/protection system
 - (i) undetected loss or reduced performance of the anti-ice/de-ice system
 - (ii) loss of more than one of the probe heating systems
 - (iii) inability to obtain symmetrical wing de icing
 - (iv) abnormal ice accumulation leading to significant effects on performance or handling qualities
 - (v) crew vision significantly affected
- (11) Indicating/warning/recording systems
 - (i) malfunction or defect of any indicating system when the possibility of significant misleading indications to the crew could result in an inappropriate crew action on an essential system
 - (ii) loss of a red warning function on a system
 - (iii) For glass cockpits: loss or malfunction of more than one display unit or computer involved in the display/warning function.
- (12) Landing gear system /brakes/tyres
 - (i) Brake fire
 - (ii) Significant loss of braking action
 - (iii) Unsymmetrical braking leading to significant path deviation
 - (iv) Failure of the L/G free fall extension system (including during scheduled tests)
 - (v) Unwanted gear or gear doors extension/retraction
 - (vi) Multiple tyres burst
- (13) Navigation systems (including precision approaches system) and air data systems
 - (i) Total loss or multiple navigation equipment failures;
 - (ii) Total failure or multiple air data system equipment failures;
 - (iii) Significant misleading indication;
 - (iv) Significant navigation errors attributed to incorrect data or a database coding error;
 - (v) Unexpected deviations in lateral or vertical path not caused by pilot input;

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- (vi) Problems with ground navigational facilities leading to significant navigation errors not associated with transitions from inertial navigation mode to radio navigation mode.
- (14) Oxygen
 - (i) for pressurized aircraft: loss of oxygen supply in the cockpit;
 - (ii) loss of oxygen supply to a significant number of passengers (more than 10%), including when found during maintenance or training or test purposes.
- (15) Bleed air system
 - (i) Hot bleed air leak resulting in fire warning or structural damage;
 - (ii) Loss of all bleed air systems;
 - (iii) Failure of bleed air leak detection system.