

Decree No. 123/2005. (29th December 2005.) issued by the Minister for Economy and Transport (MET)

on the rules of technical investigations of aviation accidents, incidents and other occurrences

On the basis of the authority by the §22, section (1), subsections b) and d) of the Act CLXXXIV of 2005 on the technical investigation of aviation, railway and marine accidents and incidents (hereinafter referred to as Kbv) – with the exception of §29 in concord with the Minister for Interior, with regard to §31 in concord with the Minister for Defence and the Minister for Health – I hereby decree the following:

ACCIDENT DUTY SERVICES

Accident duty services of Transportation Safety Bureau

1. § (1) Transportation Safety Bureau (hereinafter referred to as TSB) shall receive the reports on accidents and other transport occurrences referred in the Kbv electronically, via telephone or letters at the telephone number and address published on the website of TSB and in the Aeronautical Information Publication (AIP) of the Republic of Hungary.
- (2) If the report does not come from the operator, TSB shall notify the operator without delay.
2. § (1) A report on an aviation accident, serious incident or incident should, in accordance with §10, section (4) of Kbv, contain the following data:
 - a) location, local date and time of the occurrence,
 - b) manufacturer/model, nationality and registration marks of the aircraft,
 - c) name of the pilot-in-command (parachute jumper), name and address of the operator,
 - d) planned route and flight plan or jump plan, last point of departure and point of intended landing of the aircraft,
 - e) number and names of crew and passengers, information on cargo, with special regard to presence of dangerous goods on board,
 - f) injuries to persons, aircraft damage and 3rd party damage,
 - g) description of occurrence and probable cause,
 - h) actions taken between the occurrence and its reporting.
- (2) Insufficiency of data listed in the above section (1) does not acquit one from the obligation of prompt reporting of occurrences. TSB shall obtain the missing information from the operator.
- (3) A report on aviation irregularity (hereinafter referred to as „irregularity”) shall contain the following information:
 - a) location, local date and time of the detection of irregularity, or the time the reporting person obtained knowledge of the irregularity,
 - b) detailed description of the irregularity,
 - c) manufacturer/model, nationality and registration marks of the aircraft, if the irregularity is directly linked to an aircraft,
 - d) name of the pilot-in-command (parachute jumper), name and address of the operator,
 - e) planned route and flight plan or jump plan, last point of departure and point of intended landing of the aircraft,
 - f) number and names of crew and passengers, information on cargo, with special regard to presence of dangerous goods on board,
 - g) description of activity during which the irregularity was detected, for example: maintenance, repair, ground handling of aircraft etc,
 - h) probable cause of irregularity,
 - i) actions taken between the occurrence and its reporting,
 - j) name and contact data of the reporting person, legal basis of his/her reporting obligation [see §10, section (4) of Kbv].
- (4) Lack of data listed in the above section (3) does not acquit one from the obligation of prompt reporting. TSB shall obtain the missing information from the operator.
- (5) The reporting person may provide information beyond the scope of required content which he/she considers as important with regard to the irregularity.
- (6) Examples of serious aviation incidents are provided in Annex 1.
- (7) Examples of aviation incidents are provided in Annex 2.
- (8) Examples of aviation irregularities are provided in Annex 3.

Accident duty services of the operator

- 3. § (1)** In order to receive prompt information on aviation accidents, serious incidents, incidents or irregularities and to take necessary actions the aircraft operators, the airport operators, and providers of air traffic services shall establish an internal reporting system and operate an accident duty services department, or shall join another organisation that, by authorisation of the civil aviation authority, takes over these responsibilities (hereinafter referred to as „operation of duty services”). The civil aviation authority may request an opinion from TSB prior to issuing such an authorisation.
- (2) The accident duty services shall be operational as long as:
- a) the aircraft is airborne or until it landed (or the parachute jumpers landed),
 - b) the airport is operational and handling active traffic,
 - c) the air traffic services are operational,
 - d) the urgent search and rescue activities by the operator have concluded.
- (3) In order to operate the accident duty services, the operator shall:
- a) assign the duty personnel;
 - b) establish a permanent office for duty service.
- (4) The following documents and equipment shall be available in the duty service office:
- a) files described in §4, section (3),
 - b) provisions of law regulating air transport,
 - c) descriptions of tasks for the accident duty services,
 - d) contact data for personnel who can be invited to a technical investigation, contact data for TSB and other relevant organisations' key personnel,
 - e) a public telephone line and other communications devices.
- 4. § (1)** The head of the organisation operating the accident duty services establishes the tasks and procedures of duty service in a rule book which has been discussed with and received approval of TSB.
- (2) The personnel on duty at the accident duty services, upon receiving an accident, serious incident or incident report, shall inquire about whether the accident/incident site is secured or measures have been issued to secure the site.
- (3) The duty services shall keep record of the received reports. The records shall contain the data listed in §2, sections (1) and (3).

CONDUCTING OF THE TECHNICAL INVESTIGATION

Securing of the site

- 5. § (1)** In order to leave the accident site intact and to preserve the traces and the wreckage, the following measures shall be taken:
- a) unauthorized persons shall be prevented to enter the site,
 - b) the aircraft, its equipment, control instruments, cargo – or the remains, or parts of the remains – shall be preserved undisturbed until the arrival of the investigating committee,
 - c) unnecessary shifting/moving of aircraft or wreckage during rescue and fire-fighting shall be avoided,
 - d) if there is rain or snow, the aircraft or wreckage shall be covered with appropriate and available material (plastic foil) until the arrival of the investigating committee, provided that the dispersion of parts makes it possible and covering the remains does not alter their location,
 - e) in case the rescue of persons is already in progress when the investigating committee or the police (in state border area the Border Guards) arrive at the site, if there is a person listed in §10, section (4) of KbvT, this person – if he/she is capable of doing so – shall take notes on the alterations made to the site during the rescue – including cutting of seatbelts, presence and condition of personal lifesaving equipment - and shall present these notes to the investigating committee upon their arrival,
 - f) in case of aviation accident, serious incident or incident, the operator or the director of airport services/air traffic services is responsible for collecting documentation on aircrew, aircraft, the flight in question and the services concerned; the documentation shall be made available for the investigating committee.
- (2) The aircraft and its cargo, or remains, shall be preserved undisturbed, if the State of the Operator or the State of Registry requests so, until the arrival of their accredited representative.

- (3) The aircraft and its cargo, or remains, should be preserved undisturbed, if the State of Manufacture or the State of Design requests so, until the arrival of their accredited representative.
- (4) TSB performs the tasks listed in above sections (2) and (3) according to the legal provisions regulating the securing of accident sites.
- 6. § As part of the investigation process, TSB shall perform the recording of the traces found at the site. Should proceedings concerning petty offences or criminal proceedings commence with regard to the accident, serious incident or incident, the criminal investigating authority or the authority handling the petty offense decides on the collecting of evidence.
- 7. § (1) The investigating committee shall conduct a site survey. The site survey record shall be sent to the Director-General of TSB without delay. The record shall contain the following data: location and date/time of the accident or incident, weather and light conditions, manufacturer and model of affected aircraft, registration mark, name of the operator, name of the pilot-in-command, description of the accident/incident site, information on aircraft damage, data on injured persons, the head and members of the field investigating team, time of arrival at the site, time of commencement and completion of the survey, measures taken by the survey team. Photos and video recordings taken during the survey, site map sketch, and notes on interviews shall accompany the site survey record.
- (2) TSB provides the field investigating team with appropriate protective clothing - marked for easy identification-, vaccination, and technical equipment needed for conducting the site survey.

Aircraft flight data recorders

- 8. § (1) Only authorised and properly trained personnel can handle flight data recorder equipment and downloaded data.
- (2) The investigating committee shall be responsible for the obtaining of flight data and its effective utilisation. In case TSB does not possess the required equipment or facility, other States' facilities are available upon request.

Safekeeping of the wreckage

- 9. § (1) In case no criminal proceedings are initiated and there is a need for further analysis of the aircraft, its equipment, or remains, the investigator-in-charge (hereinafter referred to as IIC), after consultation with the police, shall be entitled to direct the operator - or the owner of the aircraft if there is no operator – to transport the aircraft to a pre-arranged location – at their own expense - for safekeeping. The IIC and representatives of other organisations involved in the investigation shall jointly decide on the release of the aircraft/wreckage from safekeeping.
- (2) The operator or owner shall prevent further damage or alteration of aircraft/wreckage during transportation and storage.
- 10. § (1) The aircraft/wreckage, its parts, or cargo shall be returned to the operator/owner – in case the aircraft is of foreign registry/ownership, to the representative of the state concerned -, if they are no longer needed for the technical investigation, and the other organisations involved clearly express a similar opinion in their replies to the IIC's inquiry.
- (2) The aircraft/wreckage, its parts, or cargo shall be handed over to the other organisations involved if they request so in their replies to the IIC's inquiry.

The investigating committee

- 11. § The investigating committee's members shall be assigned by the Director-General of TSB from a pool of specialists who possess the required education and qualifications listed in §13, sections (1) and (2) of this Decree.
- 12. § The investigator-in-charge shall be a civil servant of TSB who is responsible for the technical investigation. Tasks of IIC include:
 - a) leading of the technical investigation,
 - b) based on the findings of the investigation, preparation and submission of the draft final report and the final report to the Director-General of TSB,

- c) in order to eliminate aviation safety hazards, proposing recommendations aimed at occupation health measures, operation of aircraft and ground handling services equipment, operation of aerodrome, and other related measures (hereinafter referred to as „safety recommendations”).
- 13. § (1)** A member of the investigating committee shall possess the following qualifications and certificates:
- a) third-level degree in the professional field of aviation and at least five years of work experience in this field, and
 - b) a document certifying the completion of a transport accident investigation course done at the TSB or at other educational institution or international organisation.
- (2) In the absence of a third-level degree (except in case of the IIC) a second-level degree combined with a qualification listed in section (1) b) and 10 years of relevant experience is acceptable.
 - (3) TSB and the operators of accident duty services shall arrange for relevant special education, maintenance of abilities and competencies of the personnel to be considered as members of the investigating committee.
 - (4) Members of the investigating committee shall conduct their work under the supervision of the IIC.

Participation of accredited representatives and experts in technical investigations abroad

- 14. § (1)** TSB may participate in an investigation conducted by foreign authorities upon their request. TSB may also delegate accredited representatives or experts.
- (2) TSB shall notify, without delay, the foreign authority on its intentions regarding participation in the investigation, the name of accredited representative or expert, together with his/her travel details.
 - (3) TSB shall forward all available information concerning the occurrence to the foreign investigating authority, in accordance with international agreements, with special regard to protection of sensitive personal data as defined in the Kbtv.
 - (4) If and when an aircraft of Hungarian registry, operator or manufacture suffers an accident, serious incident or incident abroad and there are no applicable international agreements in effect, TSB shall contact the foreign investigating authorities.
- 15. § (1)** If and when an aircraft of Hungarian registry, operator or manufacture is involved in an accident, serious incident or incident abroad, TSB – upon recommendation from the operator - assigns an accredited representative and one or more experts for his/her support in the investigation. If the Director-General does not assign an accredited representative, the operator may be invited by the foreign investigating authority. The extent of experts’ participation shall be determined with regard to the effectiveness of the accredited representative’s work.
- (2) If and when an aircraft of Hungarian registry, operator, design, or manufacture, maximum take-off mass over 2500 kg, is involved in an accident, serious incident or incident abroad, TSB is obliged to send an accredited representative upon request from the foreign investigating authority.
 - (3) If and when Hungarian citizens receive serious or fatal injuries in an aviation accident or serious incident abroad while aboard an aircraft of foreign registry or operator, TSB may delegate an expert to participate in the investigation.
 - (4) The accredited representative and the expert:
 - a) shall share all relevant information with the foreign investigating authority,
 - b) shall not give out information on the course of the investigation and the findings without consent of the IIC.

Obligations of persons involved in technical investigation

- 16. § (1)** The involved persons and organisations: those responsible for issuing licences, inspection of airworthiness, issuing airworthiness certificates, manufacturing of aircraft, maintenance and repair of aircraft, air traffic control, operating of aerodrome; the civil aviation authority, the technical personnel, the aircrews etc., shall co-operate with the investigating committee.
- (2) The co-operation can include completion of subtasks, in order of which the operator delegates a representative who has relevant expertise and possesses competence required for providing data and taking necessary measures. In the framework of co-operation the operator – upon TSB's request - obtains the expert opinions, conducts tests and research at its own expense.
- 17. §** If and when an accident involves more than one aircraft or parachute jumpers, the occurrence should be considered as one. The classification of the occurrence shall be judged by the most serious consequence (injury or damage).

Preventive safety recommendation

- 18. § (1)** The IIC may issue a preventive safety recommendation in which he/she proposes safety measures to be taken by the operator, the civil aviation authority, the manufacturer, the maintenance organisation, or the operator of the aerodrome.
- (2) The addressees can either comply with the preventive safety recommendations, or refuse to do so. In the latter case, they shall send TSB a written justification of non-compliance as soon as applicable.

Draft final report

- 19. § (1)** The IIC – on the basis of the findings of the investigation - prepares and submits the draft final report with safety recommendations (if applicable) to the Director-General of TSB.
- (2) The format and content of the draft final report should be in accordance with the directions detailed in Annex 4.
- (3) The members of the investigating committee sign the draft final report. Should a member declare a dissent, he/she should mention it when signing the draft, and the dissent shall be attached to the draft in the form of a clause.
- (4) The Director-General of TSB revises the draft final report in accordance with §16, section (7) of Kbvt. On the basis of the review, the Director-General may instruct the IIC to supplement the investigation or revise the safety recommendations.

Final report

- 20. § (1)** The notes and records that have been made in the course of the technical investigation shall only be attached to the final report if they belong to the analysis of the occurrence. These records shall not contain data suitable for identification of the persons involved in the occurrence.
- (2) The format and content of the final report shall be in accordance with the directions detailed in Annex 4.
- (3) When TSB has conducted an investigation into an accident or an incident involving an aircraft of a maximum mass of over 5700 kg and has released a final report, a copy of the final report shall be sent to the International Civil Aviation Organization.

Notification of authorities responsible for security of aviation transport

- 21. §** Should a suspicion emerge during the technical investigation that an unlawful act against the security of aviation transport has been planned or concluded, TSB shall notify the authorities of the involved State(s) responsible for security of aviation transport

Flight safety service

- 22. § (1)** For the sake of flight safety, operators of civilian aircraft, airport operators and providers of air traffic services shall operate a flight safety service, or shall join another organisation that, by authorisation of TSB, takes over these responsibilities.
- (2) The main tasks of the flight safety service are the following:
- a) monitoring the compliance with rules of air transport within the operator's scope of authority,
 - b) a checking the fulfilment of rulings of the civil aviation authority within the scope of authority of the flight safety service,
 - c) continued monitoring, analysis, and evaluation of the operator's flight safety situation,
 - d) proposition of safety recommendations, on the basis of lessons from aviation accidents, serious incidents, and incidents,
 - e) information exchange with other competent authorities.
- (3) The flight safety service shall prepare and send quarterly and annual bulletins – within 30 days from the last day of the given period - to TSB, in accordance with the format and content requirements approved by TSB.
- (4) The bulletin shall include information on the received and filed reports as well as the flight safety indicators.
- (5) The members of flight safety service shall be appointed from a pool of experts with qualifications and certifications in accordance with §13, sections (1) or (2) of this Decree.

23. § In order to prevent aviation accidents and to mitigate their consequences, the operators of aircraft, the airport operators and providers of air traffic services, in co-ordination with the civil aviation authority, shall prepare an action plan for situations of emergency and for handling of aviation accidents, including plans for protection of lives and property and disaster relief activities.

INTERNATIONAL RESPONSIBILITIES OF TSB WITH REGARD TO ACCIDENTS, SERIOUS INCIDENTS AND INCIDENTS IN THE TERRITORY OF HUNGARY

Notification

24. § (1) In case of an accident or serious incident TSB shall forward a notification of an accident or serious incident with a minimum of delay and by the most suitable and quickest means available to the State of Registry, the State of the Operator, the State of Design, the State of Manufacture; and the International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2250 kg.
- (2) The notification shall be prepared in one of the working languages of ICAO and shall contain the following information:
- a) for accidents the identifying abbreviation ACCID, for serious incidents INCID;
 - b) manufacturer, model, nationality and registration marks, and serial number of the aircraft;
 - c) name of owner, operator and hirer, if any, of the aircraft;
 - d) name of the pilot-in-command;
 - e) date and time (local time or UTC) of the accident or serious incident;
 - f) last point of departure and point of intended landing of the aircraft;
 - g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;
 - h) number of crew and passengers; aboard, killed and seriously injured; others, killed and seriously injured;
 - i) description of the accident or serious incident and the extent of damage to the aircraft so far as is known;
 - j) an indication to what extent the investigation will be conducted or is proposed to be delegated by TSB;
 - k) physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site;
 - l) presence and description of dangerous goods on board the aircraft.
- (3) The notification shall contain as much of the information as is readily available, but its dispatch shall not be delayed due to the lack of complete information. Missing relevant information should be forwarded upon availability.

Reports

25. § (1) TSB shall provide the following types of reports to international organisations (listed in a separate provision of law):
- a) preliminary report on accidents,
 - b) accident/incident data report on accidents and serious incidents,
 - c) final report on accidents and serious incidents.
- (2) Guidance for preparing the Preliminary Report and the Accident/Incident Data Report is given in the Accident/Incident Reporting Manual (ICAO Doc 9156).

Preliminary report

26. § (1) When an aircraft with maximal take-off weight (MTOW) of 2250 kg or less is involved in an accident and the safety lessons are considered to be of interest to other States, the Preliminary Report shall be forwarded to:
- a) the State of Registry,
 - b) the State of the Operator,
 - c) the State of Design,
 - d) the State of Manufacture, and
 - e) any State that provided relevant information, significant facilities or experts.
- (2) When a civilian aircraft with MTOW over 2250 kg is involved in an accident, the Preliminary Report shall be forwarded to States listed in (1) as well as to ICAO.

- (3) The notification shall be prepared in one of the working languages of ICAO and be sent electronically or by airmail, within 30 days of the date of the occurrence.

Accident/serious incident data report

- 27. § (1)** If TSB conducts an investigation into an incident to a civilian aircraft with MTOW over 2250 kg, the Accident Data Report shall be sent, as soon as practicable after the investigation, to the International Civil Aviation Organization.
- (2) If TSB conducts an investigation into an incident to a civilian aircraft with MTOW over 5700 kg, the Incident Data Report shall be sent, as soon as is practicable after the investigation, to the International Civil Aviation Organization.
- (3) TSB should, upon request, provide other States with pertinent information additional to that made available in the Accident/Serious Incident Data Report.
- 28. § (1)** The Final Report (prepared with regard to §16 of Kbvt and §20 of this Decree) on accidents or serious incidents shall be sent, upon request, to other States' accident investigating bodies, in one of the working languages of ICAO.
- (2) TSB shall prepare and send, on the first day of February and July of each year, a memorandum to ICAO on Final Reports that have been forwarded to other States upon their request during the previous six months. The memorandum shall contain the following information:
- a) the name(s) of the operator(s) involved,
 - b) the manufacturer(s),
 - c) time and location of the occurrence,
 - d) occurrence class,
 - e) language(s) in which the Final Report is available.

Technical investigation by the operator

- 29. § (1)** The technical investigation by the operator shall commence immediately upon request of TSB and be finished as soon as feasible. The technical investigation by the operator may be conducted without involvement of authorised foreign representatives and observers.
- (2) The investigating committee of the operator conducts a site survey. The site survey record shall be sent to the Director-General of TSB. The record shall contain photos and video recordings taken during the survey, site map sketch, and notes on other collected evidence.
- (3) The technical investigation by the operator may be drawn by TSB under its scope of authority at any stage of the investigation.
- (4) The organisation conducting the investigation shall – within 8 working days from the date of receiving the request from TSB - provide TSB with written preliminary information on the course of the investigation and the probable causes of the occurrence, in the format and content provided by TSB. The investigation shall be concluded and closed with a report within 60 calendar days unless there is an unavoidable obstacle preventing the timely closure. The report shall not contain data suitable for identification of the persons involved in the occurrence. The report shall be sent:
- a) to TSB (electronically and by mail),
 - b) to the operator,
 - c) to the crews and technical personnel involved in the occurrence,
 - d) to the civil/military aviation authority,
 - e) to the addressees of the safety recommendations.
- (5) The format and content of the report should be in accordance with the directions detailed in Annex 4. The report that summarises a safety irregularity may be prepared in a simplified form approved by TSB if the nature of the occurrence allows for such a solution. The report shall be signed by the head of the investigating department of the organisation, or – if the organisation does not have an investigating department – the head of that organisation to which the former one has joined in order to have the investigation completed.
- (6) TSB shall make the report or excerpt of the report available on its website if the findings of the investigation can contribute to higher level of aviation safety. TSB may supplement the operator report with safety recommendations.

Explanatory provisions

30. § In the application of the current decree:

1. *ICAO*: International Civil Aviation Organisation, established by the Convention on Civil Aviation signed on 7 December 1944 in Chicago, Illinois, United States, promulgated in Hungary by the 25/1971 law-decree,
2. *Competent foreign investigating organisation*: the investigating organisation of the State of Registry or State of operator, and ICAO.
3. *Flight data recorder*: an equipment on board the aircraft, installed with the purpose of recording flight data in order to provide useful information for investigators in case of an aviation accident, serious incident, incident or irregularity.
4. *ACCID*: abbreviation for aviation accident.
5. *INCID*: abbreviation for serious incident.

MISCELLANEOUS AND FINAL PROVISIONS

31. § This Decree comes into force on 1 January 2006. Concurrently expire the following provisions: joint 13/2000 KHVM-HM-EüM decree on technical investigation of aviation accidents and incidents; joint 64/2001 KöViM-HM-EüM decree and joint 17/2004 GKM-HM-ESzCsM decree providing modifications to the decree 13/2000.

32. § This Decree serves as a compliance with the following EU legal acts:

- a) Directive 94/56/EC (21 November 1994) establishing the fundamental principles governing the investigation of civil aviation accidents and incidents, Article 3, passage g) and Annex;
- b) Directive 2003/42/EC of the European Parliament and of the Council of 13 June 2003 on occurrence reporting in civil aviation, Annexes I and II.

Examples of serious incidents

Note:

Although this Annex lists the majority of reportable serious incidents, it cannot be completely comprehensive. Any other occurrences, which are judged by those involved to meet the criteria, should also be reported.

I. AIRCRAFT FLIGHT OPERATIONS

1. Aircraft operation

- 1.1. Risk of collision with another aircraft, terrain or other object or an unsafe situation when avoidance action is necessary or would have been appropriate;
- 1.2. Avoidance action is required to avoid CFIT.
- 1.3. Rejected take-off from a closed or occupied runway, or take-off from such a runway with avoidance manoeuvre.
- 1.4. Landing or attempted landing on a closed or occupied runway.
- 1.5. Runway incursions when avoidance manoeuvre is necessary.
- 1.6. Inability to achieve predicted performance during take-off or initial climb.
- 1.7. Fire, explosion, smoke or toxic or noxious fumes, even though fires were extinguished.
- 1.8. Events requiring any use of emergency oxygen by any crew member.
- 1.9. Mechanical failure of aircraft or engine that is not classified as accident.
- 1.10. Multiple failures of one or several aircraft systems that significantly affects operation of aircraft.
- 1.11. All fuel-related events that would trigger declaration of emergency by the flight crew.
- 1.12. Incidents such as under-shooting, overrunning or running off the side of runways.
- 1.13. System malfunction, weather phenomenon, exceedance of approved operational limits, or other occurrence that would have caused deterioration of control of aircraft.
- 1.14. Malfunction of more than one navigational or flight control systems of significant importance that causes loss of redundancy.
- 1.15. Loss of control (including partial or temporary) regardless of cause.
- 1.16. Occurrences close to or above V1 resulting from or producing a hazardous or potentially hazardous situation (e.g. rejected take-off, tail strike, engine-power loss etc.).
- 1.17. Collision between an aircraft and any other aircraft, vehicle or other ground object that does not result in an accident.
- 1.18. Inability to achieve the intended aircraft configuration for any flight phase (e.g. landing gear and gear doors, flaps, stabilisers, slats etc.).
- 1.19. A hazard or potential hazard which arises as a consequence of any deliberate simulation of failure conditions for training, system checks or training purposes.
- 1.20. TCAS (traffic alert collision avoidance system), ACAS (airborne collision avoidance system), RA (resolution advisory) signals.
- 1.21. Jet or prop blast incidents resulting in significant damage.

2. Emergency

- 2.1. The use of any non-standard procedure by the flight or cabin crew to deal with an emergency when:
 - the procedure exists but is not used;
 - the procedure does not exist;
 - the procedure exists but is incomplete or inappropriate;
 - the procedure is incorrect;
 - the incorrect procedure is used.
- 2.2. Inadequacy of any procedures designed to be used in an emergency.
- 2.3. An event leading to an emergency evacuation.
- 2.4. The use of any emergency equipment or prescribed emergency procedures in order to deal with a situation.
- 2.5. An event leading to emergency descent or to the declaration of an emergency ("Mayday").

3. Crew incapacitation

- 3.1. 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.
- 3.2. Incapacitation of any member of the cabin crew which renders them unable to perform essential emergency duties.

4. Weather

- 4.1. Icing encounter resulting in handling difficulties, damage to the aircraft or loss or malfunction of any essential service.

5. Other occurrences

- 5.1. Any other occurrence 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

II/A.

I. Systems

- 1.1. The following general criteria applicable to all systems are proposed:
 - 1.1.1. inability of the crew to control the system,
 - 1.1.2. uncommanded actions,
 - 1.1.3. incorrect and/or incomplete response, including limitation of movement or stiffness,
 - 1.1.4. uncommanded movement of control surfaces,
 - 1.1.5. mechanical disconnection or failure,
 - 1.1.6. failure or malfunction of the exclusive function(s) of the system (one system could integrate several functions),
 - 1.1.7. interference within or between systems,
 - 1.1.8. failure or malfunction of the protection device or emergency system associated with the system,
 - 1.1.9. for aircraft types with single main systems, subsystems or sets of equipment: loss, significant malfunction or defect in any main system, subsystem or set of equipment,
 - 1.1.10. for aircraft types with multiple independent main systems, subsystems or sets of equipment: the loss, significant malfunction or defect of more than one main system, subsystem or set of equipment,
 - 1.1.11. 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,
 - 1.1.12. malfunction or defect of any indication system when this results in the possibility of misleading indications to the crew,
 - 1.1.13. any failure, malfunction or defect if it occurs at a critical phase of the flight and is relevant to the system operation.

II/B.

List of examples of reportable occurrences resulting from the application of these general criteria to specific systems

I. Propulsion (including engines, propellers and rotor systems) and auxiliary power units (APUs)

- 1.1. 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);
- 1.2. failure or malfunction of any part of an engine or powerplant resulting in any one or more of the following:
 - 1.2.1. uncontrolled internal or external fire, or hot gas breakout;
 - 1.2.2. thrust in a direction different from that demanded by the pilot;
 - 1.2.3. inability to control power, thrust or rpm;
 - 1.2.4. dense visible fumes or concentrations of toxic products sufficient to incapacitate crew or passengers;
- 1.3. an uncommanded thrust/power loss, change or oscillation which is classified as a loss of thrust or power control (LOTIC):
 - 1.3.1. for a single-engine aircraft; or
 - 1.3.2. where it is considered excessive for the application; or

- 1.3.3. where this could affect more than one engine in a multi-engine aircraft, particularly in the case of a twin-engine aircraft; or
- 1.4. defects of common origin which could cause an in-flight shut-down rate so high that there is the possibility of more than one engine being shut down on the same flight;
- 1.5. partial or complete loss of a major part of the powerplant.

2. Propellers and transmission

- 2.1. Failure or malfunction of any part of a propeller or powerplant resulting in any one or more of the following:
- 2.2. a thrust in the opposite direction to that commanded by the pilot;
- 2.3. a release of the propeller or any major portion of the propeller.

3. Rotors and transmission

- 3.1. Damage 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.
- 3.2. Damage to tail rotor, transmission and equivalent systems.

III. AIR NAVIGATION SERVICES, FACILITIES AND GROUND SERVICES

III/A.

The following subsections give examples of reportable occurrences resulting from the application of the general criteria to specific systems

1. Electrical system

- 1.1. total loss or loss of more than one electrical generation system

2. Flight controls

- 2.1. uncommanded and/or abnormal movement of controls,
- 2.2. mechanical flight control disconnection or failure,
- 2.3. significant interference with normal control of the aircraft or degradation of flying qualities

3. Fuel system

- 3.1. leakage of fuel which resulted in major loss, fire hazard, significant contamination
- 3.2. 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

4. Hydraulics

- 4.1. loss of more than one hydraulic circuit

5. Ice detection/protection system

- 5.1. undetected loss or reduced performance of the anti-ice/de-ice system in icing conditions
- 5.2. inability to obtain symmetrical wing de-icing in icing conditions
- 5.3. abnormal ice accumulation leading to significant effects on performance or handling qualities
- 5.4. crew vision significantly affected

6. Indicating/warning/recording systems

- 6.1. 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

7. Landing gear system/brakes/tyres

- 7.1. brake fire
- 7.2. unwanted landing gear or gear doors extension/retraction
- 7.3. multiple tyre burst.

8. Navigation systems (including precision approach systems) and air data systems

- 8.1. total loss or multiple navigation equipment failures

9. Bleed air system

- 9.1. hot bleed air leak resulting in fire warning or structural damage
- 9.2. loss of all bleed air systems.

III/B.

List of air navigation services related occurrences to be reported

- 1. ATM-specific occurrences (encompassing those situations where the ability to provide safe ATM services is affected, including situations where, by chance, the safe operation of aircraft has not been jeopardised):
 - 1.1. inability to provide air traffic services
 - 1.2. inability to provide airspace management services
 - 1.3. inability to provide air traffic flow management services
- 2. The following subsections give examples of reportable ATM occurrences resulting from the application of the general criteria listed under ATM-specific occurrences:
 - 2.1. Provision of significantly incorrect, inadequate or misleading information from any ground sources, e.g. air traffic control (ATC), automatic terminal information service (ATIS), meteorological services, navigation databases, maps, charts, manuals, etc.
 - 2.2. Provision of less than prescribed terrain clearance.
 - 2.3. Separation minima infringement.
 - 2.4. Unauthorised penetration of airspace resulting in a hazardous situation.
 - 2.5. Unlawful radio communication transmission resulting in a hazardous situation.
 - 2.6. Failure of ANS ground or satellite facilities resulting in a hazardous situation.
 - 2.7. Major ATC/ATM failure or significant deterioration of aerodrome infrastructure resulting in a hazardous situation.
 - 2.8. Aerodrome movement areas obstructed by aircraft, vehicles, animals or foreign objects, resulting in a hazardous or potentially hazardous situation.
 - 2.9. Errors or inadequacies in marking of obstructions or hazards on aerodrome movement areas resulting in a hazardous situation.
 - 2.10. Failure, significant malfunction or unavailability of airfield lighting.

Examples of incidents

Note:

Although this Annex lists the majority of reportable incidents, it cannot be completely comprehensive. Any other occurrences, which are judged by those involved to meet the criteria, should also be reported.

I. AIRCRAFT FLIGHT OPERATIONS

1. Aircraft operation

- 1.1. Unintentional significant deviation from airspeed, intended track or altitude (more than 300 ft) regardless of cause.
- 1.2. Descent below decision height/altitude or minimum descent height/altitude without the required visual reference.
- 1.3. Loss of position awareness relative to actual position or to other aircraft.
- 1.4. Breakdown in communication between flight crew (CRM) or between flight crew and other parties (cabin crew, ATC, engineering).
- 1.5. Heavy landing - a landing deemed to require a "heavy landing check".
- 1.6. Exceedance of fuel imbalance limits.
- 1.7. Incorrect setting of an SSR code or of an altimeter subscale.
- 1.8. Incorrect programming of, or erroneous entries into, equipment used for navigation or performance calculations, or use of incorrect data.
- 1.9. Incorrect receipt or interpretation of radio-telephony messages.
- 1.10. Inability to achieve the intended aircraft configuration for any flight phase (e.g. landing gear and gear doors, flaps, stabilisers, slats etc.).
- 1.11. A hazard or potential hazard which arises as a consequence of any deliberate simulation of failure conditions for training, system checks or training purposes.
- 1.12. Abnormal vibration.
- 1.13. Operation of any primary warning system associated with manoeuvring the aircraft e.g. configuration warning, stall warning (stick shaker), over-speed warning etc. unless:
 - the crew conclusively established that the indication was false and provided that the false warning did not result in difficulty or hazard arising from the crew response to the warning; or
 - operated for training or test purposes.
- 1.14. GPWS/TAWS "warning" when:
 - 1.14.1. the aircraft comes into closer proximity to the ground than had been planned or anticipated; or
 - 1.14.2. the warning is experienced in instrument meteorological conditions or at night and is established as having been triggered by a high rate of descent (mode 1); or
 - 1.14.3. the warning results from failure to select landing gear or landing flaps by the appropriate point on the approach (mode 4); or
 - 1.14.4. 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.
- 1.15. GPWS/TAWS "alert" when any difficulty or hazard arises or might have arisen as a result of crew response to the "alert".
- 1.16. Go around producing a hazardous or potentially hazardous situation.
- 1.17. Fuel system malfunctions or defects, which had an effect on fuel supply and/or distribution.

2. Emergencies

- 2.1. An event leading to the declaration of an emergency ("panne").
- 2.2. 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.

3. Weather

- 3.1. A lightning strike which resulted in damage to the aircraft or loss or malfunction of any essential service.
- 3.2. A hail strike which resulted in damage to the aircraft or loss or malfunction of any essential service.

- 3.3. Severe turbulence encounter, an encounter resulting in injury to occupants or deemed to require a "turbulence check" of the aircraft.
- 3.4. A windshear encounter.

4. Other occurrences

- 4.1. Repetitive instances of a specific type of occurrence which in isolation would not be considered "reportable" but which due to the frequency with which they arise, form a potential hazard.
- 4.2. A bird strike which resulted in damage to the aircraft or loss or malfunction of any essential service.
- 4.3. Wake-turbulence encounters.

II. AIRCRAFT TECHNICAL

1. Structural

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

- 1.1. damage to a principal structural element (PSE) that has not been designated as damage-tolerant (life-limited element). PSEs are those which contribute significantly to carrying flight, ground, and pressurisation loads, and the failure of which could result in a catastrophic failure of the aircraft;
- 1.2. defect or damage exceeding admissible damages to a PSE that has been designated as damage-tolerant;
- 1.3. damage to or defect exceeding allowed tolerances of a structural element, the failure of which could reduce the structural stiffness to such an extent that the required flutter, divergence or control reversal margins are no longer achieved;
- 1.4. 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;
- 1.5. damage to or defect of a structural element, which could jeopardise proper operation of systems. See listing below.
- 1.6. loss of any part of the aircraft structure in flight.

2. Systems

The following general criteria applicable to all systems are proposed:

- 2.1. loss, significant malfunction or defect of any system, subsystem or set of equipment when standard operating procedures, drills etc. could not be satisfactorily accomplished;
- 2.2. inability of the crew to control the system, for example:
 - 2.2.1. uncommanded actions,
 - 2.2.2. incorrect and/or incomplete response, including limitation of movement or stiffness,
 - 2.2.3. uncommanded movement of flight controls,
 - 2.2.4. mechanical disconnection or failure;
- 2.3. failure or malfunction of the exclusive function(s) of the system (one system could integrate several functions);
- 2.4. interference within or between systems;
- 2.5. failure or malfunction of the protection device or emergency system associated with the system;
- 2.6. Loss of redundancy of the system.
- 2.7. Any occurrence resulting from unforeseen behaviour of a system.
- 2.8. For aircraft types with single main systems, subsystems or sets of equipment: loss, significant malfunction or defect in any main system, subsystem or set of equipment.
- 2.9. 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.
- 2.10. 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.
- 2.11. Malfunction or defect of any indication system when this results in the possibility of misleading indications to the crew.
- 2.12. Asymmetry of flight controls; e.g. flaps, slats, spoilers etc.

3. Propulsion (including engines, propellers and rotor systems) and auxiliary power units (APUs)

- 3.1. flameout, shutdown or malfunction of any engine.

- 3.2. failure or malfunction of any part of an engine or powerplant resulting in any one or more of the following:
 - 3.2.1. non-containment of components/debris;
 - 3.2.2. inability to control power, thrust or rpm;
 - 3.2.3. inability, by use of normal procedures, to shutdown an engine;
 - 3.2.4. inability to restart a serviceable engine.
- 3.3. An uncommanded thrust/power loss, change or oscillation,
- 3.4. Defects of common origin which could cause an in-flight shut-down rate so high that there is the possibility of more than one engine being shut down on the same flight.
- 3.5. An engine limiter or control device failing to operate when required or operating inadvertently.
- 3.6. Exceedance of engine parameters.
- 3.7. FOD resulting in damage.

4. Propellers and transmission

- 4.1. Failure or malfunction of any part of a propeller or powerplant resulting in any one or more of the following:
 - 4.2. an overspeed of the propeller;
 - 4.3. the development of excessive drag;
 - 4.4. a failure that results in excessive imbalance;
 - 4.5. the unintended movement of the propeller blades below the established minimum in-flight low-pitch position;
 - 4.6. an inability to feather the propeller;
 - 4.7. an inability to change propeller pitch;
 - 4.8. an uncommanded change in pitch;
 - 4.9. an uncontrollable torque or speed fluctuation;
 - 4.10. the release of low-energy parts.

5. APUs:

- 5.1. Shut down or failure when the APU is required to be available by operational requirements, e.g. ETOPS, MEL.
- 5.2. Inability to shut down the APU.
 - 5.2.1. Overspeed.
 - 5.2.2. Inability to start the APU.

6. Other occurrences

- 6.1. An occurrence not normally considered as reportable (e.g., furnishing and cabin equipment, water systems), where the circumstances resulted in endangering the aircraft or its occupants.
- 6.2. Failure or defect of passenger address system resulting in loss of, or inaudible, passenger address system.
- 6. Loss of pilot seat control during flight.

The following subsections give examples of reportable occurrences resulting from the application of the general criteria to specific systems listed under „Systems”.

7. Air conditioning/ventilation

- 7.1. complete loss of avionics cooling
- 7.2. malfunction of cabin air conditioning.

8. Autoflight system

- 8.1. failure of the autoflight system to achieve the intended operation while engaged
- 8.2. significant reported crew difficulty to control the aircraft linked to autoflight system functioning
- 8.3. uncommanded autoflight mode change.

9. Communications

- 9.1. total loss of communication in flight.

10. Electrical system

- 10.1. loss of one electrical distribution system (AC/DC)
- 10.2. failure of the backup (emergency) electrical generation system.

11. Cockpit/Cabin/Cargo

- 11.1. failure of any emergency system or equipment, including emergency evacuation signalling system, all exit doors, emergency lighting, etc.
- 11.2. loss of retention capability of the cargo loading system.

12. Fuel system

- 12.1. fuel quantity indicating system malfunction resulting in total loss or wrong indication of fuel quantity on board,
- 12.2. fuel system malfunctions or defects which had a significant effect on fuel supply and/or distribution
- 12.3. inability to transfer or use total quantity of usable fuel.

13. Flight controls

- 13.1. asymmetry of flaps, slats, spoilers, etc.
- 13.2. limitation of movement, stiffness or poor or delayed response in the operation of primary flight control systems or their associated tab and lock systems
- 13.3. flight control surface vibration felt by the crew

14. Hydraulics

- 14.1. loss of one hydraulic system (ETOPS only)
- 14.2. failure of the isolation system
- 14.3. failure of the back-up hydraulic system
- 14.4. inadvertent ram air turbine extension.

15. Ice detection/protection system

- 15.1. loss of more than one of the probe-heating systems

16. Indicating/warning/recording systems

- 16.1. loss of a red warning function on a system
- 16.2. for glass cockpits: loss or malfunction of more than one display unit or computer involved in the display/warning function.

17. Landing gear system/brakes/tyres

- 17.1. significant loss of braking action
- 17.2. asymmetrical braking action leading to significant path deviation
- 17.3. failure of the landing gear free fall extension system (including during scheduled tests)

18. Navigation systems (including precision approach systems) and air data systems

- 18.1. total or multiple air data system equipment failures
- 18.2. significant misleading indications
- 18.3. significant navigation errors attributed to incorrect data or a database coding error
- 18.4. unexpected deviations in lateral or vertical path not caused by pilot input
- 18.5. problems with ground navigational facilities leading to significant navigation errors not associated with transitions from inertial navigation mode to radio navigation mode.

19. Oxygen for pressurised aircraft

- 19.1. loss of oxygen supply in the cockpit
- 19.2. loss of oxygen supply to a significant number of passengers (more than 10 %), including when found during maintenance or training or test purposes.

20. Bleed air system

- 20.1. failure of bleed air leak detection system.

21. Fire protection system

- 21.1. fire warnings, except those immediately confirmed as false

1. List of air navigation services related occurrences to be reported

1. Near collision incidents (encompassing specific situations where one aircraft and another aircraft/the ground/a vehicle/person or object are perceived to be too close to each other):
 - 1.1. separation minima infringement;
 - 1.2. inadequate separation.
2. Potential for collision or near collision (encompassing specific situations having the potential to be an accident or a near collision, if another aircraft is in the vicinity):
 - 2.1. aircraft deviation from ATC clearance;
 - 2.2. aircraft deviation from applicable air traffic management (ATM) regulation;
 - 2.3. aircraft deviation from applicable published ATM procedures;
 - 2.4. unauthorised penetration of airspace;
 - 2.5. deviation from aircraft ATM-related equipment carriage and operations, as mandated by applicable regulation(s).
2. *ATM-specific occurrences (encompassing those situations where the ability to provide safe ATM services is affected, including situations where, by chance, the safe operation of aircraft has not been jeopardised). This shall include the following occurrences:*
 - 3.1.1. inability to provide ATM services;
 - 3.1.2. inability to provide air traffic flow management services;
 - 3.1.3. failure of Communication function;
 - 3.1.4. failure of Surveillance function;
 - 3.1.5. failure of Data Processing and Distribution function;
 - 3.1.6. failure of Navigation function;
 - 3.1.7. ATM system security.
 - 3.2. The following subsections give examples of reportable ATM occurrences resulting from the application of the general criteria.
 - 3.2.1. Provision of significantly incorrect, inadequate or misleading information from any ground sources, e.g. air traffic control (ATC), automatic terminal information service (ATIS), meteorological services, navigation databases, maps, charts, manuals, etc.
 - 3.2.2. Provision of incorrect pressure reference data (i.e. altimeter setting).
 - 3.2.3. Incorrect transmission, receipt or interpretation of significant messages when this results in a hazardous situation.
 - 3.2.4. Unauthorised penetration of airspace.
 - 3.2.5. runway incursion where no avoiding action is necessary;
 - 3.2.5. Unlawful radio communication transmission.
 - 3.2.6. Failure of ANS ground or satellite facilities.
 - 3.2.7. Major ATC/ATM failure or significant deterioration of aerodrome infrastructure.
 - 3.2.8. Aerodrome movement areas obstructed by aircraft, vehicles, animals or foreign objects, resulting in a hazardous or potentially hazardous situation.
 - 3.2.9. Errors or inadequacies in marking of obstructions or hazards on aerodrome movement areas resulting in a hazardous situation.
 - 3.2.10. Failure, significant malfunction or unavailability of airfield lighting.

Examples of aviation irregularities

Note:

Although this Annex lists the majority of reportable irregularities, it cannot be completely comprehensive. Any other occurrences, which are judged by those involved to meet the criteria, should also be reported.

In accordance with §2, section i) of Kbv, an aviation irregularity is an operational interruption, fault, deficiency or other irregular circumstance - not taking place during the flight - which may affect or may have affected flight safety but have not caused accident or serious incident.

I. AIRCRAFT TECHNICAL IRREGULARITIES

1. Structure

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

- 1.1. damage to a principal structural element (PSE) that has not been designated as damage-tolerant (life-limited element). PSEs are those which contribute significantly to carrying flight, ground, and pressurisation loads, and the failure of which could result in a catastrophic failure of the aircraft;
- 1.2. defect or damage exceeding admissible damages to a PSE that has been designated as damage-tolerant;
- 1.3. damage to or defect exceeding allowed tolerances of a structural element, the failure of which could reduce the structural stiffness to such an extent that the required flutter, divergence or control reversal margins are no longer achieved;
- 1.4. 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;
- 1.5. 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;
- 1.6. Malfunction or defect of any indication system when this results in the possibility of misleading indications to the crew;
- 1.7. damage to or defect of a structural element, which could jeopardise proper operation of systems.

2. Systems

- 2.1. Air conditioning/ventilation
 - 2.1.1. complete loss of avionics cooling
- 2.2. Autoflight system
 - 2.2.1. failure of the autoflight system to achieve the intended operation while engaged
- 2.3. Communications
 - 2.3.1. failure or defect of passenger address system resulting in loss of or inaudible passenger address
- 2.4. Cockpit/Cabin/Cargo
 - 2.4.1. failure of any emergency system or equipment, including emergency evacuation signalling system, all exit doors, emergency lighting, etc.
 - 2.4.2. loss of retention capability of the cargo loading system.
- 2.5. Fire protection system
 - 2.5.1. undetected failure or defect of fire/smoke detection/protection system, which could lead to loss or reduced fire detection/protection
 - 2.5.2. absence of warning in case of actual fire or smoke.
- 2.6. Oxygen for pressurised aircraft
 - 2.6.1. loss of oxygen supply during maintenance or training or test purposes.
- 2.7. Bleed air system
 - 2.7.1. hot bleed air leak resulting in fire warning or structural damage
 - 2.7.2. loss of all bleed air systems
 - 2.7.3. failure of bleed air leak detection system.
- 2.8. Powerplant
 - 2.8.1. failure of the engine mount structure;
 - 2.8.2. Any defect in a life-controlled part causing its withdrawal before completion of its full life.
 - 2.8.3. FOD resulting in damage.

- 2.9. Propellers and transmission
- 2.9.1. Failure or malfunction of any part of a propeller or powerplant resulting in excessive vibration.
- 2.10. Rotors and transmission
- 2.10.1. Damage 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.
- 2.10.2. Damage to tail rotor, transmission and equivalent systems.
- 2.11. APUs
- 2.11.1. Inability to shut down the APU.
- 2.11.2. Overspeed.
- 2.11.3. Inability to start the APU.
- 2.12. Human factors
- 2.12.1. Any incident where any feature or inadequacy of the aircraft design could have led to an error of use that could lead to a hazardous situation or accident.

II. 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 life-controlled part causing retirement before completion of its full life.
- 4. Any damage or deterioration (e.g. fractures, cracks, corrosion, delamination, disbonding etc.) resulting from any cause (e.g. as flutter, loss of stiffness or structural failure) to:
 - 4.1. a primary structure or a PSE (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;
 - 5. a secondary structure which consequently has or may have endangered the aircraft;
 - 6. the engine, propeller or rotorcraft rotor system.
- 7. Any failure, malfunction or defect of any system or equipment, or damage or deterioration thereof found as a result of compliance with an airworthiness directive or other mandatory instruction issued by a regulatory authority, when:
 - 7.1. it is detected for the first time by the reporting organisation implementing compliance;
 - 7.2. on any subsequent compliance, it exceeds the permissible limits quoted in the instruction and/or published repair/rectification procedures are not available.
- 8. 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.
- 9. Non-compliance or significant errors in compliance with required maintenance procedures.
- 10. Products, parts, appliances and materials of unknown or suspect origin.
- 11. Misleading, incorrect or insufficient maintenance data or procedures that could lead to maintenance errors.
- 12. Any failure, malfunction or defect of ground equipment used for testing or checking of aircraft systems and equipment when the required routine inspection and test procedures did not clearly identify the problem, where this results in a hazardous situation.

III. AERODROME FACILITIES AND GROUND SERVICES

- 1. *Significant spillage during fuelling operations.*
- 2. *Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance or structural strength.*
- 3. *Handling of passengers, baggage and cargo*
 - 3.1. Significant contamination of aircraft structure, systems and equipment arising from the carriage of baggage or cargo.
 - 3.2. Incorrect loading of passengers, baggage or cargo, likely to have a significant effect on aircraft mass and/or balance.
 - 3.3. Incorrect stowage of baggage or cargo (including hand baggage) likely in any way to endanger the aircraft, its equipment or occupants or to impede emergency evacuation.
 - 3.4. Inadequate stowage of cargo containers or other substantial items of cargo.

- 3.5. Carriage or attempted carriage of dangerous goods in contravention of applicable regulations, including incorrect labelling and packaging of dangerous goods.

4. Aircraft ground handling and servicing

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

IV. AIR NAVIGATION SERVICES, FACILITIES AND GROUND SERVICES

1. ANS/Air Navigation Services

- 1.1. Near collision incidents due to inadequate separation (encompassing specific situations where one aircraft and another aircraft/the ground/a vehicle/person or object are perceived to be too close to each other)
- 1.2. ATM-specific occurrences (encompassing those situations where the ability to provide safe ATM services is affected, including situations where, by chance, the safe operation of aircraft has not been jeopardised). This shall include the following occurrences:
 - 1.3. inability to provide ATM services
 - 1.4. inability to provide air traffic services
 - 1.5. inability to provide airspace management services
 - 1.6. inability to provide air traffic flow management services
 - 1.7. failure of Communication function
 - 1.8. failure of Surveillance function
 - 1.9. failure of Data Processing and Distribution function
 - 1.10. failure of Navigation function
 - 1.11. ATM system security.

2. Examples of reportable ATM occurrences resulting from the application of the general criteria to aircraft operations.

- 2.1. Provision of significantly incorrect, inadequate or misleading information from any ground sources, e.g. air traffic control (ATC), automatic terminal information service (ATIS), meteorological services, navigation databases, maps, charts, manuals, etc.
- 2.2. Provision of incorrect pressure reference data (i.e. altimeter setting).
- 2.3. Incorrect transmission, receipt or interpretation of significant messages when this results in a hazardous situation.
- 2.4. Unlawful radio communication transmission.
- 2.5. Major ATC/ATM failure or significant deterioration of aerodrome infrastructure.
- 2.6. Aerodrome movement areas obstructed by aircraft, vehicles, animals or foreign objects, resulting in a hazardous or potentially hazardous situation.
- 2.7. Errors or inadequacies in marking of obstructions or hazards on aerodrome movement areas resulting in a hazardous situation.
- 2.8. Failure, significant malfunction or unavailability of airfield lighting.

Annex 4 of MET Decree No. 123/2005 (29th December 2005)

Detailed requirements for the format and content of the Final Report and the Final Report draft

I. General rules

1. Format of the Final Report:

Title.

Body. The body of the Final Report comprises the following main headings:

1. Factual information,
2. Analysis,
3. Conclusions,
4. Safety recommendations,

each heading consisting of a number of sub-headings as outlined in the following.

Appendices. Include as appropriate.

Note - In preparing a Final Report, using this format, ensure that:

- a) all information relevant to an understanding of the factual information, analysis and conclusions is included under each appropriate heading;
- b) where information in respect of any of the items in „1. Factual information” is not available, or is irrelevant to the circumstances leading to the accident, a note to this effect is included under the appropriate sub-headings.

2. The Final Report should include the following data that are relevant to the occurrence while protecting the anonymity of the persons involved:

- a) *accounts of persons involved in the accident, serious incident, incident or other occurrence, as well as data on their actions,*
- b) *official records of the interviews,*
- c) *data on the aircraft, weather, occurrence location and other circumstances, content of technical data recorders,*
- d) *expert reports,*
- e) *other reports.*

(3) Detailed guidance on completing each section of the Final Report is found in the Manual of Aircraft Accident Investigation (ICAO Doc 6920).

II. Format of the final report

Title. The Final Report begins with a title comprising: name of the operator; manufacturer, model, nationality and registration marks of the aircraft; place and date of the accident or incident.

Synopsis. Following the title is a synopsis describing briefly all relevant information regarding: notification of accident to national and foreign authorities; identification of the accident investigation authority and accredited representation; organization of the investigation; authority releasing the report and date of publication; and concluding with a brief résumé of the circumstances leading to the accident.

1. FACTUAL INFORMATION

1.1 History of the flight. A brief narrative giving the following information:

- Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing.
- Flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate.
- Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.

1.2 Injuries to persons. Completion of the following (in numbers):

Injuries	Crew	Passengers	Others
Fatal			
Serious			
Minor			
None			

Note - Fatal injuries include all deaths determined to be a direct result of injuries sustained in the accident. Serious injury is defined in Chapter 1 of the Annex.

- 1.3 Damage to aircraft. Brief statement of the damage sustained by aircraft in the accident (destroyed, substantially damaged, slightly damaged, no damage).
- 1.4 Other damage. Brief description of damage sustained by objects other than the aircraft.
- 1.5 Personnel information:
- Pertinent information concerning each of the flight crew members including: age, validity of licences, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time.
 - Brief statement of qualifications and experience of other crew members.
 - Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., when relevant.
- 1.6 Aircraft information:
- Brief statement on airworthiness and maintenance of the aircraft (indication of deficiencies known prior to and during the flight to be included, if having any bearing on the accident).
 - Brief statement on performance, if relevant, and whether the mass and centre of gravity were within the prescribed limits during the phase of operation related to the accident. (If not and if of any bearing on the accident give details.)
 - Type of fuel used.
- 1.7 Meteorological information:
- Brief statement on the meteorological conditions appropriate to the circumstances including both forecast and actual conditions, and the availability of meteorological information to the crew.
 - Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.).
- 1.8 Aids to navigation. Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time.
- 1.9 Communications. Pertinent information on aeronautical mobile and fixed service communications and their effectiveness.
- 1.10 Aerodrome information. Pertinent information associated with the aerodrome, its facilities and condition, or with the take-off or landing area if other than an aerodrome.
- 1.11 Flight recorders. Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available.
- 1.12 Wreckage and impact information. General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in the Appendices.
- 1.13 Medical and pathological information. Brief description of the results of the investigation undertaken and pertinent data available.

Note - Medical information related to flight crew licences should be included in „1.5 - Personnel information.”

- 1.14 Fire. If fire occurred, information on the nature of the occurrence, and of the fire fighting equipment used and its effectiveness.
- 1.15 Survival aspects. Brief description of search, evacuation and rescue, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seatbelt attachments.
- 1.16 Tests and research. Brief statements regarding the results of tests and research.
- 1.17 Organizational and management information. Pertinent information concerning the organizations and their management involved in influencing the operation of the aircraft. The organizations include, for example, the operator; the air traffic services, airway, aerodrome and weather service agencies; and the regulatory authority.

The information could include, but not be limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework.

1.18 Additional information. Relevant information not already included in 1.1 to 1.17.

1.19 Useful or effective investigation techniques. When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describing the results under the appropriate sub-headings 1.1 to 1.18.

2. ANALYSIS

Analysis of the information documented in „1 - Factual information” which is relevant to the determination of conclusions and causes.

3. CONCLUSIONS

List of the findings and causes established in the investigation. The list of causes should include both the immediate and the deeper systemic causes.

4. SAFETY RECOMMENDATIONS

As appropriate, a brief statement of any recommendations made for the purpose of accident prevention and any resultant corrective action.

APPENDICES

Shall include, as appropriate, any other pertinent information considered necessary for the understanding of the report.

NOTE: This present document is the translation of the Hungarian version of Decree 123/2005.

Although efforts have been made to translate it as accurately as possible, discrepancies may occur.

In this case, the Hungarian is the authentic, official version.