

MINISTRY OF TRANSPORT

REGULATION No.13

dated 27 January 1999

on investigation of aviation accidents

Amended, SG 83 of 24 September 2004

Part One General Provisions

Article 1. (1) This Regulation regulates the terms and procedures for investigation of civil aviation aircraft accidents and incidents in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace according to the international commitments assumed by the Republic of Bulgaria irrespective of the state of registration of the aircraft.

(2) The technical investigation of civil aviation aircraft accidents and incidents regulated hereby is independent from the judicial inquiry of such accidents.

(3) The sole purpose of the technical investigation of aviation accidents and incidents is their prevention in the future. The establishment of the degree of someone's fault or responsibility is not the subject of this activity. The recommendations for avoidance of future aviation accidents do not lead to the presumption of fault or liability.

Article 2. (1) *In case of an accident in a foreign territory with an aircraft registered in the Republic of Bulgaria, the Minister of Transport and Communication shall send an accredited representative and, if necessary, one or more experts along with him to participate in the investigation in the state where the accident has occurred in case that the same investigates it.*

(2) In case of an accident in a foreign territory with an aircraft registered in the Republic of Bulgaria, the Minister of Transport shall delegate a representative to participate in the investigation in the state where the accident has occurred in case that the same investigates it.

(3) If the state where an accident has occurred with an aircraft registered in the Republic of Bulgaria is not going to investigate, the accident shall be investigated in compliance with the requirements of this Regulation.

(4) *If an aircraft registered in the Republic of Bulgaria suffers an accident or a serious incident on nobody's territory, the investigation shall be conducted under the requirements of this regulation.*

Article 3. The activities for prevention of aviation accidents, the organizing of technical investigation of accidents and serious incidents, the collection and the analysis of aviation safety information for preventive purposes, and the control over the investigation of civil aircraft incidents shall be performed by a specialized unit *for investigation of aviation incidents*.

(2) *The special unit activity under Par. 1 shall be organized, planned and managed by the Unit's Head— State Aeronautical Inspector.*

Part Two Storing of Material Evidence

Article 4. (1) The material evidence of an aviation accident or a serious incident shall be stored and kept by taking photos or in another appropriate manner of protection against confiscation, damage, loss or destruction.

(2) *In case of a aircraft accident:*

1. *The aviation operator shall organize the moving of the remains in order and at a place, indicated by the investigation's representative;*

2. *the aircraft, the wreckage of it, the cargo, the traces on the ground and the other material evidences shall be guarded, including after their moving outside the accident area, for the purposes of the investigation.*

(3) At the request of the state of registration or by the state of the Aviation Operator of an aircraft which has undergone an accident in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace, the aircraft, the material evidence in it and any other

material evidence shall be kept unchanged until their survey from an authorized representative of such state(states), as far as it is feasible and not impeding the investigation. The aircraft could be moved for rescue operations to save people, animals, mail and valuables, for their protection from destruction by fire, or for other reasons, or for elimination of a hazard or an obstacle to air navigation, another type of transport or people.

(4) At the request of the state of the Designer or of the state of the Manufacturer the aircraft will not be removed from the place of the accident until its survey from an authorized representative of the respective state (states) as far as it is feasible, not impeding the investigation and not retaining the aircraft from resumed operation, if practically possible.

(5) The aircraft, its parts and everything inside it, which are no longer necessary for the investigation, will be delivered to the duly authorized commissioner or commissioners of the state of registration, or if applicable, of the state of the Aviation Operator, and they will have free access to them. In case that the aircraft or its parts are located in an area where free access is not allowed, they shall be moved to another appropriate place.

(6) The aircraft, its wreckage, cargo, ground traces and other material evidence shall be released from guarding by the Investigation Commissioner after coordination with the judicial inquiry authorities.

(7) The moving of the aircraft, the wreckage of it or its cargo and their removal in any other way from the investigation shall be made after the express permission of the investigation representative, except in the cases indicated in Par. 3.

(8) In case of an aviation accident *outside the airport region the National Police Service employees, National Military Police Service and State Agency Civil Defense*, the Manager of the airport:

1. refer the accident to the attention of the medical units;
2. make arrangements for protection of the wreckage from fire and further damages;
3. establish the presence of radiation and take the necessary measures;
4. appoint security to guard the aircraft and the wreckage;
5. take measures for storage of not apparently visible and short-lasting evidences such as ice, soot, etc. by taking photos of them or using other appropriate ways;
6. provide information about the names and the addresses of all witnesses, the statements of whom might be useful for the investigation.

(9) In case of an aircraft accident or a serious incident in an airport region, the airport director shall apply the airport emergency-rescue actions plan and shall be responsible for the preservation of material evidence until arrival of the investigating committee.

Part Three Notification of accidents and incidents

Article 5. (1) In case of civil aircraft accident or serious incident in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace, and according to the international commitments assumed by the Republic of Bulgaria, the specialized unit under Article 3 shall notify with minimum delay and using the most convenient and fast means of communication (telephone, fax or AFTN):

1. In case of an accident with aircraft which is not registered in the Republic of Bulgaria:
 - a) the state of registration;
 - b) the state of the Aviation Operator;
 - c) the state of the Manufacturer;
 - d) the state of the Designer;
 - e) the International Civil Aviation Organization (ICAO), if the maximum mass of the aircraft exceeds 2250 kg;

f) *the European Organization for the Safety of Air Navigation (Eurocontrol) for aviation accidents, related to the Air traffic Management, in accordance with the implementation of Appendix № 1a and Appendix № 2a.*

2. *In case of an accident or a serious incident with an aircraft registered in the Republic of Bulgaria, the Aircraft Accident Investigation Unit under Article 3 shall notify:*

a) the state of the operator;

b) the state of the manufacturer

c) the state of design;

d) the International Civil Aviation Organization (ICAO) if the maximum take-off mass of the aircraft exceeds 2250 kg.

e) the European Organization for the Safety of Air Navigation (Eurocontrol) on aviation accidents related to the Air Traffic Management, in accordance with the implementation of Appendix № 1a and Appendix № 2a.

(2) *In case of an accident or a serious incident in a foreign territory with aircrafts registered in the Republic of Bulgaria, or of a Bulgarian operator, or designed or manufactured in Bulgaria the Aircraft Accident Investigation Unit under Article 3*

1. shall secure dispatch of the available information about the crew and the aircraft which the accident or the serious incident has occurred with, and shall notify the state of occurrence about participation of an accredited representative in the investigation and shall give his name, detailed contact information and the expected day of arrival, in case the accredited representative shall take part in the investigation;

2. upon request from the state shall conduct the investigation, grants information about any organization whose activity directly or indirectly could exert influence on the exploitation of the aircraft.

(3) *If the state of the event does not have at its disposal information about a serious incident with an aircraft registered in the Republic of Bulgaria, or such operated by a Bulgarian operator, the Aircraft Accident Investigation Unit shall send a notification about the incident to the state of design, the state of the manufacturer, and the state of occurrence."*

Article 6. (1) The notification under Article 5 shall be made in one of the working languages of ICAO with due consideration of the language of the respective recipient if this will not cause too much delay, using plain language and containing the following information, without detaining it if it has omissions:

1. the abbreviation ACCID - for designation of an aviation accident, INCID - for designation of serious incidents;
2. manufacturer, type (model), national and registration signs, serial number of the aircraft;
3. name of the owner, the aviation operator or the leaseholder of the aircraft;
4. family name of the pilot in command of the *aircraft and citizenship of the crew and passengers;*
5. date and time of the accident or the incident;
6. point of taking off and the planned point of landing;
7. location of the aircraft towards a proper geographical reference point, geographical coordinates;
8. number of crew members and passengers, separately for those on board and for others - number of killed and injured persons;
9. character of the aviation accident or serious incident and condition of the aircraft;

10. indication, depending on the particular case, of the scope of the investigation and the eventual necessity for participation of other states in the investigation;
11. physical characteristics of the area of the accident *and information connected with the difficulties in access to it, or special requirements connected with stay at the accident or serious incident area* or the serious incident.
12. *designation of the authority sending the notification and information about the means of communication at any time with the Investigator-in-charge;*
13. *presence and description of dangerous cargo on board the aircraft.*

(2) The information under paragraph 1 shall not be detained if it has omissions.

(3) In case of incomplete information about the aviation accident or incident the specialized unit under Article 3 shall send the details additionally, if possible.

Article 7. (1) *Upon receipt of a notification for an accident or a serious incident from a foreign state, the Aircraft Accident Investigation Unit Art. 3 shall confirm receipt of the notification.*

(2) *Upon receipt of a notification for an accident or a serious incident with an aircraft operated by a Bulgarian operator, the Chief Administration "CAA", with minimum delay, and using the most appropriate and fastest means of communication, shall direct detailed information about the dangerous cargo on board the aircraft to the state of occurrence.*

(3) Upon request by another state the specialized unit under Article 3 shall provide information relating to the civil aircraft accident or incident, about the offices or the facilities used or which have been accessible for use by the aircraft before the accident or the incident.

Article 8. (1) In the cases of civil aircraft accident or serious incident in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace, the aviation organizations shall advise immediately the Civil Aviation Authority and the specialized unit under Article 3 by using the most convenient and fast means of communication.

(2) The Civil Aviation Authority and the specialized unit under Article 3 shall exchange information about all cases of civil aircraft accidents, serious incidents and incidents

Article 9. (1) Each accident, serious incident and incident with civil aircraft in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace shall *be send a written announcement not later than 24 hours after the event has occurred to the Chief Administration "CAA" and the Special Unit under Art. 3, in accordance with Appendix № 1.* After receiving the information of an aviation incident that took place, the specialized sector for aviation incidents' investigation has to define it with the proper qualification, according to § 3, item 1, 2 and 3.

(2) *The announcement under Paragraph (1) shall be sent by the operator with whose aircraft the incident, the serious incident, or the aviation accident has occurred.*

(3) *The announcement under Paragraph (1) shall also be sent by all aviation organizations which have information about the incident, the serious incident, or the aviation accident..*

Part Four INVESTIGATION Section I Accidents and serious incidents

Article 10. (1) *Any accident or serious accident with a civil aircraft that has occurred on the territory of Republic of Bulgaria, its territorial waters and the airspace served, in accordance with the international engagements taken from Republic of Bulgaria, shall be investigated by a commission, appointed by the Minister of Transport and Communications after the proposal from the Specialized Unit under Art. 3. Such commission shall be appointed also in case if occurrence of aviation accident or serious accident with an aircraft, registered in Republic of Bulgaria, on nobody's territory or on territory of a state, which is not party under the Convention for International Civil Aviation (promulgated in State Gazette, Issue 55 from*

July 8th 1994.) and shall not start an investigation. The commission's chairman shall be accredited for the investigation.

(2) Until the commission under par. 1 is appointed, the Specialized Unit under Art. 3 shall take actions for the organization and the start of the investigation of the aviation accident or serious accident.

(3) When investigating an accident or a serious incident with civil aircraft the authorized representative of the *state of registration, state of operator, state of design or state of manufacturer* shall be entitled to:

1. visit the place of the aviation accident;
2. survey the wreckage;
3. receive information about the witness statements and propose a subject of inquiry;
4. full access to the material evidences;
5. receive a copy of the investigation files;
6. participate in the reading of records from the flight recorders;
7. participate in initiatives germane to the investigation beyond the place of the accident;
8. attend the meetings held in the process of investigation, incl. for analyzing of the information, formulation of conclusions, reasons and safety precautions;
9. *express positions on the investigation*;

(3) In case of civil aircraft accident with fatal outcome for Bulgarian citizens, without prejudice to any other considerations, the Minister of Transport may send to the authority of the state where the accident has occurred a petition for delegation of an expert to participate in the investigation.

Article 11. (1) The members of the Committee under Article 10 shall be nominated depending on the character and the severity of the accident or the incident.

(2) Members of the investigation committee cannot be persons:

1. who have relatives, up to the third line of descent, involved in the accident or the incident;
2. who have direct or indirect interest in the property and in the management of the Aviation Operator whose aircraft has undergone the accident or the serious incident;
3. who are employees the Aviation Operator whose aircraft has undergone the accident or the serious incident;
4. who are responsible for the functional airworthiness of the aircraft fleet, its flying operation, maintenance, licensing, air traffic services or functioning of the airport.

Article 12. (1) The information received from investigation of accidents, serious incidents or incidents shall not be used for any other purposes except for the purposes of the investigation and for prevention of future accidents.

(2) In the final report shall be included only data which are immediately related to analysis of the accident or the serious incident. The following information shall not be disclosed.

1. persons responsible for the safe aircraft operation;
2. correspondence of the persons responsible for the safe aircraft operation;
3. medical or other confidential information about the persons involved in the accident or the incident;
4. records and copies of records of the flight recorders;
5. opinions or statements made during analyzing of the relevant information, including records of the flight recorders.

(3) Materials and information from the technical investigation of an aviation accident cannot be used as evidences at court proceedings.

Article 13. (1) The Investigation Commissioner and the members of the Committee are entitled to:

1. immediate access to:

- (a) the place where the accident has occurred and/or the places where the aircraft wreckage is located;
- (b) the airports, including buildings and plants;
- (c) all places used or connected with production, repairs or maintenance of the aircraft and its parts;
- (d) buildings and plants accommodating offices of ATC organizations, aviation telecommunications and radionavigation facilities, and weather services;
- (e) airsheds and runways;
- (f) the contents of the flight recorders and any other records;
- (g) any information or records relevant to the accident owned by the owner, the aviation operator, the aviation organizations and the Civil Aviation Authority;
- (h) the results from the investigation or from tests made with samples taken from:
 - bodies of the victims;
 - the persons participating in the operation of the aircraft;

2. interrogate witnesses.

(2) With an approval by the Minister of Defense the powers under paragraph 1 item 1 shall be exercised also with respect to military airports which by their designation or by the force of a special permission issued for the case are put at the disposal of and available for use by civil aviation aircraft, and military plants or military units accommodating civil aircraft.

(3) In case of refused access to any of the places specified under paragraph 1, the Investigation Commissioner shall obtain such access with the assistance of the police.

Article 14. Depending on the character of the accident, the volume and the complexity of the tasks, and the place of the event shall be set up teams in charge of various aspects of the investigation, subordinated and coordinated by the Investigation Commissioner, which might be as follows:

1. Flight Performance Team (flight issues) - prepares information about the aircraft flight path immediately before the accident and makes an analysis and assessment of the crew preparation for flight. This team coordinates its work with the teams in charge of Human Factors, Flight Recorders and Witness Statements and analyzes all issues connected with the preparation for the flight and its performance and with the actions of the crew at the final stage of the flight during and after the accident. They include:

- a) flight planning;
- b) preliminary and pre-flight preparation;
- c) approval of the aircraft for the flight;
- d) weather conditions and weather reports;
- e) condition of the radio communications;
- f) air navigation support;
- g) air traffic attendance;
- h) interim landings, if any, preparation for a second flight;
- i) performed checks of the members of the crew;
- j) medical history of the members of the crew, including all recent diseases;
- k) psychological factors;
 - 1) rest taken by the members of the crew and their activities in the course of 24 hours before the accident;

2. Weather Conditions Team - collects and analyzes all weather reports connected with the accident, including bulletins of the actual ground and airspace weather conditions, reports from

crews, registered weather conditions and weather-forecasts given by the respective authorities. This team coordinates its work with the teams in charge of Flight Performance, Air Traffic Services and Witness Statements;

3. Air Traffic Services Team - analyzes all issues of airspace attendance relevant to the accident, studies the originals of records made by the respective authorities, including the available records from screens of radar stations and radiotelephone link records, and also the actions of the flight control officers and their qualifications, establishes the condition of the radio-communication, radio navigation, lighting facilities and other flight facilities. If necessary, makes a retrospective review of the progress of the flight on the basis of the information provided by the airspace services. This team coordinates its work with the Flight Performance Teams;

4. Witness Statements Team - finds, establishes contacts and takes written statements from all persons, including survived passengers and crew members who have seen, heard or could have known of the flight course and the weather conditions during the accident;

5. Flight Recorders Team - establishes the location and stores the records of flight recorders and through the Investigation Commissioner reads the records. Only qualified, licensed personnel and licensed equipment shall be used for operation with the flight recorders;

6. Aircraft Construction Team - investigates the aircraft and its control systems, determines the location of its wreckage and identifies compartments, components and parts, and type and quality of the fuel used.

7. Power Plant Team - investigates the engines and the systems supporting their operation and control, the existence and the intensity of fire in the power plant, and type and quality of the fuel used. This team coordinates its work with the Flight Performance and the Aircraft Construction teams;

8. Aircraft Systems Team - performs detailed investigation of all systems and their components, determines their condition and operational worthiness, and also the position of the controllers and the switches and the information received by the crew from the indicators. This team coordinates its work with the Flight Performance and Aircraft Construction teams;

9. Aircraft Airworthiness Maintenance Records Team - establishes on the basis of all normative documents and reports how the aircraft has been maintained, establishes the works done on the aircraft, the engines and the components, including after overhaul, the existence of malfunctions which might be relative to the accident, and investigates the information from the flight log and documents found. This team coordinates its work with the Flight Performance and Aircraft Construction teams, and through the Investigation Commissioner, assistance could be requested from the state of registration, from the states of the designer and of the manufacturer;

10. Human Factors Team - this team is in charge of the aviation and medical aspects of the investigation, and also of those aspects which are relative to the injuries incurred from the collision with the ground. The team considers the issues relative to the possible loss of working capacity, the general physical and psychical condition of the members of the crew, and the environmental factors which could have influence on the crew. The team establishes the location during the accident, the injuries incurred and performs coroner's examination of crew members and establishes their actions during the collision with the ground. This team investigates also the possible effect of psychological factors of the passengers, conducive to the accident. The team receives all medical reports, including from autopsy of passengers and members of the crew as they could be useful for the technical investigation. The team considers the problems of evacuation and survival, connected with the construction of the aircraft (the engineering psychology aspects) which are relative to the reasons for the accident, the injuries incurred to members of the crew and to passengers, and the aircraft compliance with the safety requirements. The team coordinates its activities with those of the Flight Performance, Witness Statements and Aircraft Construction Teams;

11. Evacuation, Search, Rescue and Fire Fighting Team - investigates the evacuation, search and rescue circumstances, and also the activities of the fire fighting units. It covers also the quality, the functioning and the use of the respective equipment. This team coordinates its work with the Witness Statements, Construction and Human Factors Teams.

Article 15. The Investigation Commissioner:

1. receives the data from the flight recorders, using the necessary equipment or services of a respective licensed organization. If necessary, the flight recorders should be sent to the state of the manufacturer or to another state which has the necessary equipment;
2. hires, for the needs of the investigation, advisors and experts and assigns drafting of expert reports.

Article 16. (1) If after completion of the investigation important but unconsidered facts have been established relative to the accident, the investigation shall be resumed.

(2) When the investigation of an accident has been performed by request of another state, its consent shall be requested for resumption of the investigation.

Section II Incidents

Article 17. (1) Each incident with civil aircraft, operated by a Bulgarian aviation operator, irrespective of the state of registration of the aircraft, shall be investigated by the aviation operator within seven days after its occurrence.

(2) Each incident with civil aircraft in the serviced airspace of the Republic of Bulgaria shall be investigated by the Air Traffic Control within seven days after its occurrence.

(3) Each ground incident with civil aircraft shall be investigated by the aviation organizations concerned.

(4) For each incident the aviation organizations shall send to the specialized unit under Article 3 a report according to the sample contained in Appendix No.5.

(5) All aviation organizations shall keep a register of incidents according to the sample contained in Appendix No.6.

(6) For investigation of civil aircraft incidents, and in the cases when a person of the managing personnel of the respective aviation organization has been involved in the incident, a Committee shall be assigned at the discretion of the Minister of Transport according to the procedure prescribed in Article 10.

Part Five REPORTS

Article 18. (1) Depending on the character of the investigated aviation accident or serious incident, a preliminary, an informational and a final report shall be drafted.

(2) Upon request by another state, additional information may be provided with the informational report.

(3) For each accident or serious incident with civil aircraft in the territory of the Republic of Bulgaria, the territorial waters and the serviced airspace, the Investigation Commissioner shall prepare a preliminary report according to the sample contained in Appendix No. 2 in one of the working languages of the International Civil Aviation Authority. The report shall be sent by air mail within 30 days as of the moment of the aviation accident or serious incident, if until that moment an informational report has not been sent. In the cases immediately connected with safety of flights, the preliminary report shall be sent immediately following receipt of the data in the fastest and most convenient way, whereas:

1. in case of accidents and serious incidents with aircraft of maximum mass 2250 kg and more, the report shall be sent to:

- a) the state of registration;
- b) the state of the aviation operator;
- c) the state of the designer;
- d) the state of the manufacturer;
- e) the state which has provided the respective information, basic equipment or experts, and
- f) the International Civil Aviation Organization;

2. In case of accidents and serious incidents with aircraft of maximum mass under 2250 kg, the report shall be sent to:

- a) the state of registration;
- b) the state of the aviation operator;
- c) the state of the designer;
- d) the state of the manufacturer;
- e) the state which has provided the respective information, basic equipment or experts.

(4) For each investigated accident or serious incident with civil aircraft of maximum mass over 2250 kg the Investigation Commissioner shall prepare an informational report according to the sample contained in Appendix No. 3 in one of the working languages of the International Civil Aviation Authority. The report shall be sent to the International Civil Aviation Authority in a coded form as soon as possible after the investigation of the aviation accident or serious incident.

(5) In cases of investigation of incidents with aircraft of maximum mass over 5700 kg with established circumstances which are of interest also for other states, an informational report on the incident shall be sent to the International Civil Aviation Authority.

Article 19. (1) For each investigated civil aircraft accident or serious incident the Investigation Commissioner shall prepare a final report according to the sample contained in Appendix No.4 in one of the working languages of the International Civil Aviation Authority.

(2) The final report on the investigated aviation accident or serious incident shall be sent immediately to:

- a) the state which has requested the investigation;
- b) the state of registration;
- c) the state of the aviation operator;
- d) the state of the designer;
- e) the state of the manufacturer;
- f) all states which have their citizens killed or seriously injured;
- g) the state which has provided the respective information, basic equipment or experts, and
- h) the International Civil Aviation Organization in case of accidents with aircraft of maximum mass over 5700 kg.

(3) In the cases when investigation has been performed by request of another state, the draft final report shall be sent to the state which has requested the investigation for coordination and to all states which have participated in the investigation. The remarks received shall be included in the report or shall be attached to it. If in the course of 60 days no remarks on the final report have been received, the report shall be sent to the countries under paragraph 2.

(4) Draft reports, parts of them and whatever other documents received in the course of the investigation of an accident or an incident, performed by another state, shall not be published and not spread without the consent of that state, except for in the cases when the investigating state has already published or disclosed the contents of the documents.

Part Six PREVENTION OF AVIATION ACCIDENTS

Article 20. (1) The specialized unit under Article 3 monitors the safety status of the flights, organizes the distribution of informational bulletins connected with the safety of the flights, the keeping and storage of records of the performed investigations, maintains an informational system with database of aviation accidents, and a system of anonymous reporting of risks and hazards in the civil aviation.

(2) The persons that have provided reports by the system of anonymous reporting of risks and hazards in the civil aviation shall remain anonymous except for in cases of a crime or an accident.

Article 21. All aviation organizations shall apply their own flight safety program, approved by the Civil Aviation Authority. This program includes:

1. Rules of internal monitoring in the following areas: organization, maintenance and performance of the flights; training and maintaining the qualification of the aviation personnel; maintenance of the aircraft airworthiness; maintenance of certified equipment; management policy;
2. Rules and procedures for identification and registration of the risk factors which exert influence on the safety of the flights, for informing the responsible persons or those who are involved and actions undertaken for their elimination.

Article 22. All aviation organizations maintain a system of mandatory reporting of incidents by their aviation personnel by adhering to rules and procedures approved by the Civil Aviation Authority.

Article 23. (1) All aviation organizations shall periodically prepare analyses of the flights safety status and the envisaged measures for safety improvement by adhering to rules and procedures approved by the Civil Aviation Authority.

(2) The periodicity of the analyses shall be determined by the respective organization according to the specifics of the activities, but not less than twice per annum.

(3) The respective organization shall send a certified copy of the analysis to the specialized unit under Article 3 not later than one month after the respective period of report.

ADDITIONAL PROVISIONS

B 1. When an aviation accident or incident has caused injuries with fatal outcome up to 30 days after the event, they shall be classified as fatalities.

B 2. The aircraft shall be deemed missing when the official investigation has been closed and the location of the wreckage has not been established.

B 3. Within the meaning of this Regulation:

1. "Aviation Accident" is an event, connected with the use of aircraft, which has occurred as from the moment of a person's climbing on board with the intention to perform a flight to the moment when all people have left the aircraft, in the course of which:

a) a fatality has occurred or serious injuries have been incurred in result of: stay on board of the aircraft or direct contact with any part of the aircraft, including with parts separated from the aircraft, or direct impact from the jet, except for in the cases when the injuries have been caused by natural reasons, self-injuries or injuries by other persons or when the injuries have been caused to passengers without tickets who have hidden themselves at places which normally are not used by crew or passengers; or

b) the aircraft has been damaged or destroyed, and in result have been damaged the soundness of its construction, its technical or flight performance has been deteriorated and substantial repairs or replacement of damaged components is required, except for the cases of engine failure or damage, when the damage has been incurred only to the engine, its fairing or auxiliary units, or only to the propellers, the wing tips, the aerals, the wheels, the braking devices, the fairing or when the skin has small dents or holes; or

c) the aircraft is missing or has happened to be at a place where the access to it is absolutely impossible;

1. "Serious Incident" is an incident under circumstances evidencing that it has been on *the* verge of an accident. The difference between an accident and a serious incident is only in the consequences (the result);

2. "Incident" is every event, other than an accident, connected with the use of aircraft, which influences or could influence the operational safety.
 3. "Flight Recorder" is a recorder mounted on board of the aircraft as an additional source of information, necessary for the investigation of an aviation accident or incident.
 4. "State of the Manufacturer" is the state which has jurisdiction with respect to the organization of and the responsibility for the final assembly of the aircraft;
 5. "State of the Designer" is the state which has jurisdiction with respect to the organization of and the responsibility for the construction of the aircraft type;
 6. "State of the place of the event" is the state in the territory of which the accident or the incident has occurred;
 7. "State of Registration" is the state in the register of which the aircraft has been entered;
 8. "State of the Aviation Operator" is the state in which the license of the aviation operator has been issued;
 9. "Preliminary Report" is an announcement designated for immediate distribution of the data received at the initial stages of investigation of an accident;
 10. "Maximum Mass" is the maximum certified mass of the aircraft;
 11. "Reason" is an action, lack of action, circumstance, condition or their combination which have led to the aviation accident or incident;
 12. "Investigation" is a process conducted for the purpose of prevention of aviation accidents, including collection and analysis of information, drafting of conclusions, including establishment of the reasons and drafting of safety precautions;
 13. "Safety Precautions" are proposals by the authority, authorized to perform the investigation, made on the grounds of information received during the investigation for the purpose of preventing future aviation accidents;
 14. "Serious Injury" is an injury which:
 - b) requires hospitalization for more than 48 hours within 7 days after it has been incurred;
 - c) has caused break of bones (except for minor breaks of fingers, toes or nose);
 - d) is connected with ruptures of tissues, causing abundant bleeding, injured nerves, muscles or tendons;
 - e) is connected with injury of any viscus;
 - f) is connected with second or third degree burns or whatsoever burns of more than 5% of the surface parts of the body;
 - g) is connected with an established fact of influence of detrimental (infectious) substances or injuring radiation;
 1. "Advisor" is a person appointed on the grounds of having the respective qualification to render assistance to the authorized representative;
 2. "Investigation Commissioner" is a person appointed on the grounds of having the respective qualification to organize and conduct the investigation and to control its progress;
 3. "Authorized Representative" is a person appointed on the grounds of having the respective qualification to participate in an investigation conducted by another state;
 4. "Aviation Organizations" are all licensed aviation operators, airport authorities, airport enterprises, operators of airport activities and Air Traffic Control.
- B 4. For statistical purposes the aviation accidents are classified as:
1. "Clash" - an accident in result of which a fatality has occurred;
 2. "Average" - an accident in result of which the aircraft has been fully destroyed or damaged beyond repair;
 3. "Damage" - an accident after which the aircraft could be rehabilitated only after serious repair works;

B 5. A list of examples for serious incidents with civil aircraft is given in Appendix No.7.

B 6. Specific definitions of incidents with civil aircraft are given in written orders by the Minister of Transport;

B 7. The Minister of Transport gives instructions which specify the premises, the kits, equipment and the materials required for investigation of aviation accidents and their prevention.

B 8. All licensed aviation operators, airport authorities, airport enterprises and the Air Traffic Control apply their own instructions for investigation of incidents, approved by the Civil Aviation Authority.

B 9. The Minister of Transport approves, by way of a written order, rules of coding and classifiers of:

1. The events during accidents and incidents and the stages of the flight;
2. Descriptive codes by groups: aircraft; power plant; aircraft systems; flight performance and operation; servicing and maintenance of an aircraft airworthiness; air traffic services; airports; weather reports and modifiers of the descriptive codes;
3. explanatory codes by groups for aviation organizations, aviation personnel, influencing factors and modifiers of the explanatory codes.

B 10. The information from the flight recorders may be used by the Aviation Operator for the purpose of maintaining the aircraft airworthiness and for assessment of the professional qualification of the flying crew in compliance with rules approved by the Civil Aviation Authority.

B 11. The aircraft crew or the flight control officers involved in a serious incident shall have minimum 72 hours rest-time after the incident irrespective of other considerations.

TRANSITIONAL AND CONCLUSIVE PROVISIONS

B 12. This Regulation has been issued on the ground of Article 142 paragraph 2 of the Civil Aviation Act (promulgated in State Gazette No.94 of 1972; revised in No.30 of 1990;

revised and supplemented in No. 16 of 1997 and No.85 of 1998) and the International Civil Aviation Convention (State Gazette No.55 of 1994) and takes effect as of 1 March 1999.

B 13. Until the introduction (by way of a written order) of rules and classifiers under B 9 of the Additional Provisions, the Aviation Operators may use Document 9156-AN/900 of the International Civil Aviation Organization for coding of reports on incidents.

Minister of Transport: W. Kraus

Appendix No 1
to Article 9 paragraph 3

Notice of an incident

Aviation organization.
(Name)

Registration No. of the notice ____ Date, time and place of the incident. Aircraft

(Type and Registration Sign)

Flight.

(Number and type of the flight, points of take off and landing or ground location of the aircraft) Pilot in command of the flight or a responsible person _____

(Name, Family Name) Brief description of the incident

Date and time _____

Notice sent by _____

(Position, Family Name) Means of communication

(Telephone, fax, telex number) Signature: _____

Appendix No.2
to Article 18 paragraph 3

Preliminary report on the investigation of an accident or a serious incident

1. General data of the accident or the serious incident:

1.1. Case number;

1.2. Place of the accident;

1.3. Date and local time;

1.4. Data of the aircraft:

1.4.5. Type and manufacturer;

1.4.6. state of registration and registration sign;

1.4.7. Name of the operator. 8. Flight history:

2.9. Type of the flight with indication whether scheduled and international;

2.10. Type of the operator;

2.11. Last point of take off;

2.12. Planned point of landing;

2.13. Duration of the flight (time in the air).

3. Injuries - number of fatalities, serious, minor injuries, no injuries and unknown, as follows:

3.1. of the crew;

3.2. of the passengers;

3.3. of persons staying on the ground.

4. Aircraft troubles.

5. Weather reports:

5.1. General weather conditions in the region of the accident;

5.2. Lighting conditions (light background).

6. Events during the accident and flight stages listed by order of their occurrence.

7. Descriptive part (not to exceed 200 words):

7.1. Brief description of the accident, including extraordinary circumstances and most essential information;

7.2. Safety precautions and preventive measures considered or adopted.

Appendix No.3
to Article 18 paragraph 4

Informational report on the investigation of an accident or a serious incident

1. General data of the accident or the serious incident:
- 1.2. Case number;
- 1.3. Classification - accident or serious incident;
- 1.4. Place of the accident - state and geographical coordinates;
- 1.5. Date and local time;
- 1.6. Data of the aircraft:
- 1.5.7. Type and manufacturer;
- 1.5.8. State of registration and registration sign;
- 1.5.9. Name of the operator
10. Flight history:
- 2.11. Type of the flight with indication whether scheduled and international;
- 2.12. Type of the operator;
- 2.13. Last point of take off;
- 2.14. Planned point of landing;
- 2.15. Duration of the flight (time in the air).
16. Information for the Air Traffic Control (ATC):
- 3.17. Type of the flight plan;
- 3.18. Type of the flight permission;
- 3.19. ATC Authority which has attended the aircraft during the accident.
20. Speed and altitude of the aircraft with indication of the measuring units.
21. In case of emergency landing or caution landing, the type and the place of landing are to be indicated.
22. In case of accident in the process of approach to landing or during landing, to be indicated:
- 6.23. type of the approach;
- 6.24. type of the instrumental approach;
- 6.25. scheme of the instrumental approach;
- 6.26. category of the exact landing approach;
- 6.27. automated landing.
28. Injuries - number of fatalities, serious, minor injuries, no injuries and unknown. as follows:
 - 7.29. of the pilot;
 - 7.30. of the co-pilot;
 - 7.31. of other crew members;
 - 7.32. cabin crew;
 - 7.33. passengers;
 - 7.34. persons on the ground.
35. Aircraft damages and damages of other facilities.
36. Data of the personnel:
 - 9.37. Pilot in control of the aircraft in the moment of the first event of the accident;
 - 9.38. Pilot in command of the aircraft:
 - 9.2.39. Sex and age;
 - 9.2.40. Type of qualification license;
 - 9.2.41. Validity of the qualification license and of the certificate of medical fitness;
 - 9.2.42. Qualification ratings relative to aircraft type, license for instrument flights and instructorship qualification;
 - 9.2.43. Flying hours for: the last 24 hours; the last 30 days; the last 90 days and total for:

- 9.2.5.44. the type of the aircraft which has undergone the accident;
- 9.2.5.45. all types of aircraft;
- 9.2.46. Working time during the last 24 hours;
- 9.2.47. Duration of rest-time before working time;
- 9.48. Other members of the crew - individually:
 - 9.3.49. Sex and age;
 - 9.3.50. Type of qualification license;
 - 9.3.51. Validity of the qualification license and of the certificate of medical fitness;
 - 9.3.52. Qualification ratings relative to aircraft type, license for instrument flights and instructorship qualification;
 - 9.3.53. Flying hours for: the last 24 hours; the last 30 days; the last 90 days and total for:
 - 9.3.5.54. the type of the aircraft which has undergone the accident;
 - 9.3.5.55. all types of aircraft;
 - 9.3.56. Working time during the last 24 hours;
 - 9.3.57. Duration of rest-time before working time;
- 9.4. Other personnel involved in the accident - individually:
 - 9.4.1. Type of the individual's position;
 - 9.4.2. Sex and age;
 - 9.4.3. Validity of the qualification license;
 - 9.4.4. Availability of the required qualification ratings;
 - 9.4.5. Length of service at the respective position.
- 10. Aircraft.
 - 10.1. Date of production, serial number and total period of operation;
 - 10.2. Availability and validity of a Certificate of Airworthiness and documents of performed maintenance;
 - 10.3. Type of aircraft, power plant and landing gear;
 - 10.4. Permission for the aircraft to fly in frosty conditions;
 - 10.5. Permission and category of the aircraft for performance of correct landing approach.
- 6. In case of engine failure, the model, the manufacturer and the flying hours after the last repair of the failed engine must be indicated.
- 7. In case of failure or malfunctioning of a component, a part or a detail, the name, the type and the serial number must be indicated.
- 8. Weather reports:
 - 13.9. Instructions, weather forecasts and notification of specific meteorological phenomena;
 - 13.10. General data of the weather conditions and the lighting conditions with indication of the flight stage to which they refer;
 - 13.11. Wind - velocity, direction, blasts, maximum blast and place of measurement;
 - 13.12. Visibility - general visibility, runway visibility and visibility constraints;
 - 13.13. Cloudiness and lower boundary of cloudiness;
 - 13.14. Precipitation - type and intensity;
 - 13.15. Temperature;
 - 13.16. Frost - type and intensity;
 - 13.17. Turbulence - type and intensity;
 - 13.18. In case of an accident during take off, to be indicated wind direction in relation to the runway and its lateral component and the availability of wind section or microblasts.
- 19. Navigation facilities - data of the facilities connected with the accident.
- 20. Airport - data are provided in case of an accident in the area of the airport.
 - 15.21. General data - name, location directory, type and elevation;
 - 15.22. Runway used - designation, available length, available width, safety

- stopway length and inclination;
- 15.23. Runway surface - type and condition of the blanket, braking effect and methods of braking effect measurement;
- 15.24. Availability and use of lighting equipment;
- 15.25. Category of the runway used.
- 26. Data of the aircraft wreckage and of the collision, including location charts.
- 27. Survival factors:
 - 17.28. Number of evacuated persons and evacuation duration in minutes and seconds;
 - 17.29. Factors impeding the evacuation - fire, smoke, injuries, fragments, darkness, stress, etc.;
 - 17.30. Emergency evacuation facilities of the aircraft and efficient use;
 - 17.31. Factors which have impeded the efficient use of the emergency evacuation facilities of the aircraft;
 - 17.32. Emergency lights - availability and functioning;
 - 17.33. Safety belts - type and condition - separately for the pilot seats and for the passengers hall;
 - 17.34. Number of broken safety belts and seats which have not sustained the collision.
- 35. Mid-air collision or hazardous proximity - the distances along the horizontal and the vertical lines and the registration of the other aircraft should be indicated.
- 36. Safety precautions:
 - 19.37. with respect to the personnel;
 - 19.38. with respect to the aircraft;
 - 19.39. other.
- 20. For each event during the accident or the incident should be indicated:
 - 20.1. Stage of the flight - code and name;
 - 20.2. Type of the event - code and name;
 - 20.3. List - descriptive factors (up to five for each event), containing:
 - 20.3.4. Subject (object) relative to the event - code and name;
 - 20.3.5. Up to three modifiers for each subject, specifying its condition;
 - 20.3.6. Up to three explanatory factors for each descriptive factor **with** indicated:
 - 20.3.3.7. Organization or person - code and name;
 - 20.3.3.8. Subject (object) - code and name;
 - 20.3.3.9. Modifier - code and name;
- 21. Descriptive part (not to exceed 200 words):
 - 21.1. Brief description of the accident, including the extraordinary circumstances and the most essential information;
 - 21.2. Safety precautions and preventive measures considered or adopted.

Appendix No.4 to Article 19
paragraph 1

Final report on the investigation of an accident or a serious incident

- 1. Form - the report contains the following parts:
 - 1.2. Title part containing: name of the operator; manufacturer, model, national and registration signs of the aircraft; place and date of the accident or the incident;
 - 1.3. Introduction providing information about: the notification of national and international authorities about the accident or the incident; the authority authorized to perform the investigation and the authorized representative; the

authority which has drafted the report and date of publishing; and a conclusive statement of the circumstances which have caused the accident;

1.4. Main part, consisting of the following sections:

- 1.3.5. factual information;
- 1.3.6. analysis;
- 1.3.7. conclusion;
- 1.3.8. safety precautions;
- 1.3.9. additional data, if necessary.

The lack of information with respect to any point of a particular section of the report shall be explicitly marked in such section.

2. Factual information:

2.1. Flight history - brief description, containing:

2.1.2. Flight number and type, last point of take off, time of take off and planned point of landing;

2.1.3. Preparation for the flight, description of the flight and of the events which have caused the accident, including retrospective review of the flight path, if possible;

2.1.4. Location (coordinates, elevation), time of the accident (with indication of the measuring unit - local or UTC), a.m. or p.m.;

2.5. Injuries - presented in figures in the following table:

<u>Injuries</u>	Crew	<u>Passengers</u>	<u>Other persons</u>
Fatalities			
Serious			
Insignificant/lacking			

2.3. Aircraft damages - brief description of the damages incurred to the aircraft during the accident (destroyed, substantially damaged, insignificantly damaged, none);

2.4. Other damages - brief description of the damages incurred on other means other than the aircraft;

2.5. Personnel information:

2.5.6. Data of each member of the flying crew, including: age, flying license, qualification ratings, checks performed, flying experience (general and with the particular type of aircraft) and information about working time and rest time;

2.5.7. Brief information about the qualification and the experience of the cabin crew;

2.5.8. Relevant information about other personnel, e.g. ATC personnel, maintenance offices, airport, etc., if necessary;

2.6. Data of the aircraft:

2.6.1. Data of airworthiness of the aircraft - including all malfunctions, known before or occurred during the flight, if relative to the accident;

2.6.2. Brief information about the technical characteristics and whether the position of the center of the mass has been within the required limits at the respective flight stage when the accident has occurred. In case of non-compliance with the required tolerances and if this is relative to the accident, details shall be given. 2.6.3. Information about the fuel used and its condition;

2.7. Weather reports:

2.7.1. Reports on the weather during the accident, including weather forecasts and the actual conditions, and also the weather reports available to the crew;

2.7.2. daylight conditions during the accident;

2.3. Navigation facilities - information about the available air navigation facilities, including those for landing such as ILS, MLS, NDB, VOR, PAR, visual ground

- facilities, etc., and data of their operation and efficiency during the accident;
- 2.4. Communications - information about the movable and fixed means of aviation communication, their operation and efficiency;
 - 2.5. Airports - information about the airport, its equipment and condition or about the runway area, when the accident had not occurred on the airport;
 - 2.6. Flight recorders - location of the aircraft flight recorders, their condition after their discovery and information retrieved from them;
 - 2.7. Information about the collision and the wreckage - general information about the place of the accident and the character of spreading of the wreckage; about the discovered technical failures or malfunctioning systems. Details of the location and the condition of the particular wreckage shall be given if the aircraft has been destroyed under the collision;
 - 2.8. Medical and morbid study reports - description of the results from the performed investigations and the established facts. Medical reports about the crew shall be given under item 2.5.1;
 - 2.9. Fire - in case of a fire, reports on the character of the event and the fire hydrants used and their efficiency shall be provided;
 - 2.10. Survival factors - brief description of the process of search, evacuation and rescue, location of the crew and of the passengers in connection with injuries, damages incurred to such aircraft accessories as seats, fixtures, safety belts;
 - 2.11. Tests and examinations - description of the results from the performed tests and examinations;
 - 2.12. Information about the organizations and the authorities, relevant to the operation of the aircraft, e.g. organizations of the operator, ATC, airports, weather office, and also the authorized regulating authority. The information shall include also data of the organizational structure and functions, available resources, financial standing, administrative policy and practice and regulatory background;
 - 2.13. Additional information - relevant information which has not been included in sub-sections 2.1-2.18;
 - 2.14. Useful or efficient investigation methods, if such have been applied. Brief substantiation shall be given and also the results obtained under sub-sections 2.1-2.18.
15. Analysis - if necessary, the factual information specified in section 2 shall be analyzed from the viewpoint of the conclusions drawn and establishment of the reasons.
 16. Conclusion - statement of the circumstances and the reasons established in the course of the investigation, including both the immediate reasons and the less obvious system factors.
 17. Safety precautions - if necessary, recommendations for the purpose of preventing aviation accidents and all measures taken for this purpose shall be given.
 18. Additional information - the respective additional information, necessary for proper understanding of the report, shall be included, if expedient.

Appendix No. 5 to Article
17 paragraph 4

Report on an incident

1. Name of the aviation organization.
2. General data of the incident:
 - 2.3. Number of the written order for appointment of an investigation committee;
 - 2.4. Place of the incident;
 - 2.5. Date and local time;

- 2.6. Data of the aircraft;
 - 2.4.7. Type and manufacturer - code and name;
 - 2.4.8. Registration sign.
- 9. Flight history:
 - 3.10. Type of the flight with indication whether scheduled and international;
 - 3.11. Last point of take off;
 - 3.12. Planned point of landing;
 - 3.13. Flight duration (time in the air);
 - 3.14. Type of flight schedule;
 - 3.15. Type of flight permission;
 - 3.16. ATC authority which has attended the aircraft during the incident.
- 17. Speed and altitude of the aircraft during the incident with indication of the measuring units.
- 18. In case of caution landing, type and place of the landing shall be indicated.
- 19. In case of incident in the process of approach to landing or during landing, to be indicated:
 - 6.20. type of the approach;
 - 6.21. type of the instrumental approach;
 - 6.22. scheme of the instrumental approach;
 - 6.23. category of the exact landing approach;
 - 6.24. automated landing.
- 7. Data of the personnel:
 - 7.1. Flying pilot of the aircraft in the moment of the first event of the incident;
 - 7.2. Pilot in command of the aircraft:
 - 7.2.3. Sex and age;
 - 7.2.4. Type of qualification license;
 - 7.2.5. Validity of the qualification license and of the certificate of medical fitness;
 - 7.2.6. Qualification ratings relative to aircraft type, license for instrument flights and instructorship qualification;
 - 7.2.7. Flying hours for: the last 24 hours; the last 30 days; the last 90 days and total for:
 - 7.2.5.8. the type of the aircraft which has undergone the incident;
 - 7.2.5.9. all types of aircraft;
 - 7.2.10. Working time during the last 24 hours;
 - 7.2.11. Duration of rest-time before working time;
 - 7.12. Other members of the crew - individually:
 - 7.3.13. Sex and age;
 - 7.3.14. Type of qualification license;
 - 7.3.15. Validity of the qualification license and of the certificate of medical fitness;
 - 7.3.16. Qualification ratings relative to aircraft type, license for instrument flights and instructorship qualification;
 - 7.3.17. Flying hours for: the last 24 hours; the last 30 days; the last 90 days and total for:
 - 7.3.5.18. the type of the aircraft which has undergone the incident;
 - 7.3.5.19. all types of aircraft;
 - 7.3.20. Working time during the last 24 hours;
 - 7.3.21. Duration of rest-time before working time;
- 7.4. Other personnel involved in the accident - individually:
 - 7.4.1. Type of the individual's position;
 - 7.4.2. Sex and age;
 - 7.4.3. Validity of the qualification license;

- 7.4.4. Availability of the required qualification ratings;
- 7.4.5. Length of service at the respective position. 8. Aircraft.
- 8.1. Date of production, serial number and total period of operation;
- 8.2. Availability and validity of a Certificate of Airworthiness and documents of performed maintenance;
- 8.3. Damages.
- 4. In case of engine failure, the model, the manufacturer and the flying hours after the last repair of the failed engine must be indicated.
- 5. In case of failure or malfunctioning of a component, a part or a detail, the name, the type and the serial number must be indicated.
- 6. Weather reports:
 - 11.7. Instructions, weather forecasts and notification of specific meteorological phenomena;
 - 11.8. General data of the weather conditions and the lighting conditions with indication of the flight stage to which they refer;
 - 11.9. Wind - velocity, direction, blasts, maximum blast and place of measurement;
 - 11.10. Visibility - general visibility, runway visibility and visibility constraints;
 - 11.11. Cloudiness and lower boundary of cloudiness;
 - 11.12. Precipitation - type and intensity;
 - 11.13. Temperature;
 - 11.14. Frost - type and intensity;
 - 11.15. Turbulence - type and intensity;
 - 11.16. In case of an incident during take off, to be indicated wind direction in relation to the runway and its lateral component and the availability of wind section or microblasts.
- 17. Navigation facilities - data of the facilities connected with the accident.
- 18. Airport - data are provided in case of an accident in the area of the airport.
 - 13.19. General data - name, location directory, type and elevation;
 - 13.20. Runway used - designation, available length, available width, safety stopway length and inclination;
 - 13.21. Runway surface - type and condition of the blanket, braking effect and methods of braking effect measurement;
 - 13.22. Availability and use of lighting equipment;
 - 13.23. Category of the runway used.
- 24. Mid-air collision or hazardous proximity - the distances along the horizontal and the vertical lines and the registration of the other aircraft should be indicated.
- 25. Safety precautions:
 - 15.26. with respect to the personnel;
 - 15.27. with respect to the aircraft;
 - 15.28. other. 29. For each event during the incident shall be indicated:
 - 16.30. Stage of the flight - code and name;
 - 16.31. Type of the event - code and name;
 - 16.32. List - descriptive factors (up to five for each event), containing:
 - 16.3.33. Subject (object) relative to the event - code and name;
 - 16.3.34. Up to three modifiers for each subject, specifying its condition;
 - 16.3.35. Up to three explanatory factors for each descriptive factor with indicated:
 - 16.3.3.36. Organization or person - code and name;
 - 16.3.3.37. Subject (object) - code and name;
 - 16.3.3.38. Modifier - code and name;
- 17. Descriptive part (not to exceed 200 words):
 - 17.1. Brief description of the incident, including the extraordinary circumstances and the most essential information;

17.2. Safety precautions and preventive measures considered or adopted. **Note:** Only information relative to the particular incident and aviation organization shall be provided.

Appendix No.7 to 65

List of examples of serious incidents with civil aircraft

1. Damages of the aircraft structure or engines, which cannot be classified as accidents.
2. Proximity of two or more aircraft which requires maneuvering for evasion of collision or when such maneuvering has been necessary.
3. Evaded collision or collision with the ground and/or obstacles.
4. Take off or attempted take off from closed, occupied or damaged runway.
5. Landing or an attempted landing on closed, occupied or damaged runway.
6. Situation in which the aircraft is apparently incapable to reach the required characteristics during take off run or the initial stage of altitude gaining.
7. Any flames or smoke in the passengers hall or in the cargo compartments, including those extinguished with a fire hydrant.
8. Multiple failures of one or more of the aircraft systems which seriously affect or impede its safe operation.
9. Any situation which has necessitated emergency use of oxygen from the crew.
10. Any cases of intervention in the work of the crew.
11. Any condition of the fuel, requiring that the pilot in command of the flight announces an emergency situation.
12. Cases in which landing has been performed before the runway or the aircraft has left its boundaries.
13. Malfunctioning of one or more channels in a reserved system which is mandatory for control or navigation.
14. Malfunctioning of systems, natural phenomena, etc. which have caused deviation from the approved flight course or difficulties in the flying of the aircraft.
15. Failure of more than one engine in a multiengine aircraft.
16. Loss of the working capacity of a member of the crew (the flying crew).