ICAO
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as implemented in
ECCAIRS 428

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Topic: Aerodrome

Section: Aerodrome identification. (Aerodrome identification)

The identification of the aerodrome by name, location and status.

Id: 4 **Aerodrome elevation above MSL (Elevation above MSL)**

Manual entry

Aerodrome elevation. The elevation of the highest point of the landing area. Elevation. The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.

Id: 1 **Aerodrome latitude (Aerodrome latitude)**

Manual entry

The latitude of the aerodrome reference point. Aerodrome reference point: The designated geographical location of an aerodrome.

Id: 5 **Aerodrome location indicator (Location indicator)**

Predefined value list : values from table [V4 CD Location Indicators]

Location indicator. A four-letter code group formulated in accordance with rules prescribed by ICAO and assigned to the location of an aeronautical fixed station.

Id: 2 **Aerodrome longitude (Aerodrome longitude)**

Manual entry

The longitude of the aerodrome reference point. Aerodrome reference point: The designated geographical location of an aerodrome.

Id: 7 **Aerodrome status (Aerodrome status)**

Predefined value list

The status of the aerodrome, i.e. whether it is a public, private or military aerodrome.

- Public aerodrome (An aerodrome used in the main by public aircraft.) 6

  A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

- Military airstrip, public (A military airstrip that is open to the public.) 2

  A strip of land prepared for the taking off and landing of military aircraft which is available for use by the public.

- Private airstrip (An airstrip not available to the public.) 1

  A strip of land prepared for the taking off and landing of aircraft, that is not available for normal commercial operations.

- Military airstrip (A military airstrip that is not available for public use.) 3

  A strip of land prepared for the taking off and landing of military aircraft which is not available for use by the public.

- Light a/c aerodrome (An aerodrome used in the main by gliders and microlight aircraft.) 5

  A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of gliders and microlight aircraft.

- Restricted aerodrome (An aerodrome with a restriction in place as to its use.) 4

  A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of certain types of aircraft and/or certain users.

- Other (An aerodrome used by aircraft and or users other than those listed above.) 98
- Unknown (An aerodrome the status of which is not known.) 99

Id: 10 **Aerodrome type (Aerodrome type)**

Predefined value list

The type of aerodrome, whether this is a land or water aerodrome.

- Land (The type of aerodrome was a land aerodrome.) 1

  A land aerodrome is a defined area on land (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

- Heliport (The type of aerodrome was a heliport.) 3

  A heliport is an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. ICAO Annex 14.

- Prepared landing area (The type of aerodrome was a prepared landing area.) 4

  A prepared landing area is a defined area, other than an aerodrome or heliport, on land or water which has been prepared for the arrival, departure and surface movement of aircraft.

- Water (The type of aerodrome was a water aerodrome.) 2

  A water aerodrome is a defined area of water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

- Other (An aerodrome type other than any of the above.) 98
- Unknown (The aerodrome type has not been established.) 99

Section: Helicopter landing area. (Helicopter landing area description)

The description of the helicopter landing area. This section is applicable to helicopter operations only. The section should be completed in particular for off-aerodrome landings of helicopters.

Id: 3 **Helicopter landing area configuration (Configuration hel lndg ar)**

Predefined value list

Details on the configuration of the helicopter landing area.

- Confined area (A helicopter landing area which is confined.) 3

  A helicopter landing area surface whether natural or artificial which is bounded, limited, restricted, restrained, shut up or enclosed in a manner which affects the landings and take-offs.

- Pinnacle (Peak or a rock used as helicopter landing area.) 2

  Any natural peaked formation, e.g. a lofty rock or stone pointed at the top, a peak or a rock projecting out of the sea, which forms the helicopter landing area surface whether natural or artificial.

- Sloping (The helicopter landing area surface was sloping.) 1

  The helicopter landing area surface had a gradient, either natural or artificial.

- Other (Any other type of helicopter landing area.) 98

  A helicopter landing area configuration other than the above.

- Unknown (The type of helicopter landing area was unknown.) 99

  A helicopter landing area configuration that has not been determined.

Id: 8 **Helicopter landing area surface type (Surface type)**

Predefined value list

The type of surface at the helicopter landing area.
N.B. To be entered only if the occurrence involves a landing of helicopters.

- Concrete/asphalt/steel (The surface of a helicopter landing area is made of concrete, asphalt or steel.) 1
- Grass (The surface of a helicopter landing area is covered with grass or similar short vegetation.) 3
- Ice (The surface of a helicopter landing area is solid ice.) 4
- Snow (The surface of a helicopter landing area is snow.) 5

  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.

- Steel mesh (The surface of a helicopter landing area is a made of steel mesh.) 2
- Water (The helicopter landing area is an area of water.) 6
- Other (The type of the helicopter landing area is other than one of the above.) 98
- Unknown (The surface type of the helicopter landing area has not been established.) 99

Id: 9 **Helicopter landing area type (Helicopter land. area type)**

Predefined value list

The type of the helicopter landing area, i.e. whether it is, a surface heliport, a heliport on an elevated building or a helideck on a ship.

- Elevated heliport (The helicopter landing area was an elevated heliport.) 2

  The helicopter landing area was a defined area on a raised structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. ICAO Annex 6, 14.

- Off-shore helideck (The helicopter landing area was an off-shore helideck.) 3

  A helideck is a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. ICAO Annex 14.
  Helideck. A heliport located on a floating or fixed off-shore structure. ICAO Annex 6.

- Prepared landing area (The helicopter landing area was a site which had been prepared for helicopter landings e.g. by providing an artificial surface or visual landing aids.) 6
- Ship helideck (The helicopter landing area was a ship helideck.) 4

  The helicopter landing area was a defined area on a ship intended to be used wholly or in part for the arrival, departure and surface movement of helicopters.
- Surface heliport (The helicopter landing area was a surface level heliport.) 1

  The helicopter landing area was an aerodrome or a defined area on a structure, at surface level, intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. ICAO Annex 14.
- Natural landing site (The helicopter landing area was a site which had not been prepared for helicopter landings.) 5
- Other (The type of helicopter landing area was other than one of those above.) 98
- Unknown (The type of helicopter landing area has not been established.) 99

Topic: Air traffic services

Section: Air traffic control. (Air traffic control)

This sections provides information on the type of air traffic control services received by this aircraft.

Id: 57 **Clearance validity (Clearance validity)**

Predefined value list

Clearance: Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.
Note 1.- For convenience, the term "air traffic control clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.
Note 2.- The abbreviated term "clearance" may be prefixed by the words "taxi", "take-off", "departure", "en route", "approach" or "landing" to indicate the particular portion of flight to which the air traffic control clearance relates.
ICAO Annexes 2 and 11.

- Valid (Valid) 6
  Valid
- Not Valid (Not Valid) 2
  Not Valid
- Not applicable (Not applicable) 7
  Not applicable
- Unknown (Unknown) 99
  Unknown

Id: 64 **Controlling agency (Controlling agency)**

Predefined value list

The agency which controlled the flight.

N.B. This includes the operator who is not an Air Traffic Services agency. An air traffic control service is a service provided for the purpose of: a) preventing collisions: between aircraft and on the manoeuvring area between aircraft and obstructions and b) expediting and maintaining an orderly flow of traffic.

- Air traffic control (The agency controlling the flight was air traffic control.) 1
- Flight Information service station (The agency controlling the flight was a flight information service station.) 2
  Flight information service. A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. ICAO DOC 4444.
- Operator (The agency controlling the flight was the operator.) 3
- None (There was no agency controlling the flight.) 97
- Other (The agency controlling the flight was other than one of those mentioned above.) 98
- Unknown (Which agency was controlling the flight was not established.) 99

Id: 270 **Special ATC procedures (Special ATC procedures)**

Predefined value list

To indicate what special procedures were in use at the time of the occurrence. Special procedures include: experimental procedures, land after, land and hold short and simultaneous intersecting runway operations.

- LAHSO (The special ATC procedure in use was "LAHSO".) 5

  LAHSO: Operations which include simultaneous takeoffs and landings and/or simultaneous landings when a landing aircraft is able and is instructed by the controller to hold-short of the intersecting runway/taxiway or designated hold-short point. Pilots are expected to inform the controller promptly if the hold short clearance can not be accepted.
  Land and hold short position: A designated position on a runway intended for use for land and hold short operations indicating the end of the reduced landing distance available.

- SIRO (The special ATC procedure in use was "Simultaneous Intersecting Runway Operations") 4

  SIRO: Operations conducted on two intersecting runways subject to specific ATS procedures such that routine operations take place on the primary intersecting runway whilst hold short procedures take place on the secondary intersecting runway.

- Land after (The special ATC procedure in use was "land after".) 1
- Low visibility (The special ATC procedure in use was "low visibility".) 2
- Experimental (The special ATC procedure in use was "experimental".) 3

  Refers to any type of experimental procedure in force at the time. Use narrative to explain the nature of the procedure if relevant to the occurrence.

- Other (The special ATC procedure in use was other than those listed above.) 98

Section: Flight level, altitude, height. (Flight level, altitude)

This section provides information on the flight level, altitude or height of the aircraft. This section is used for reporting air traffic management occurrences mainly. Flight level:A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals. Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere: a) when set to a QNH altimeter setting, will indicate altitude; b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum; c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels. Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes. Altitude:The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL). Height:The vertical distance of a level, a point or an object considered as a point, measured from a specified datum. Note.- For the purposes of this example, the point referred to above is the lowest part of the aeroplane and the specified datum is the take-off or landing surface, whichever is applicable.

Id: 25 **Aircraft flight level at the time of the occurrence (Aircraft flight level)**

Manual entry

The aircraft flight level at the time of the occurrence. Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 58 **Cleared altitude (Cleared altitude)**

Manual entry

The altitude to which the aircraft was cleared at the time of the occurrence. Altitude is the vertical distance of the aircraft measured from mean sea level.

Id: 59 **Cleared altitude altimeter setting (Cleared alt altimeter)**

Manual entry

The altimeter setting in hPa used as the reference for the cleared altitude.

Id: 60 **Cleared flight level (Cleared flight level)**

Manual entry

The aircraft cleared flight level at the time of the occurrence.
Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 61 **Cleared height (Cleared height)**

Manual entry

The aircraft cleared height at the time of the occurrence.

Height is the vertical distance of the aircraft measured from a specified datum.

Id: 62 **Cleared height altimeter (Cleared height altim.)**

Manual entry

The altimeter setting in hPa used as the reference for the cleared height.
Height:The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Id: 65 **Co-ordinated entry altitude (Co-ord entry altitude)**

Manual entry

Co-ordinated entry altitude is the altitude at which the aircraft is expected at an entry point into the sector.

Altitude:The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

Id: 66 **Co-ordinated entry flight level (Co-ord entry flt level)**

Manual entry

The flight level or level band at or within which the aircraft is expected at an entry point into the sector.
Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 67 **Co-ordinated entry height (Co-ord entry height)**

Manual entry

The height at which the aircraft is expected at an entry point into the sector.
Height: The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Id: 68 **Co-ordinated exit altitude (Co-ord exit altitude)**

Manual entry

The altitude at which the aircraft is expected at an exit point from the sector.

Altitude:The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

Id: 69 **Co-ordinated exit flight level (Co-ord exit flt level)**

Manual entry

The flight level or level band at or within which the aircraft is expected at an exit point from the sector.
Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 70 **Co-ordinated exit height (Co-ord exit height)**

Manual entry

The height at which the aircraft is expected at an exit point from the sector.
Height: The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Id: 27 **Height altimeter (Height altimeter)**

Manual entry

The height indicated on the altimeter at which the occurrence took place.
Height is the vertical distance of the aircraft measured from a specified datum.

Id: 247 **Requested altitude (Requested altitude)**

Manual entry

The altitude requested by the aircraft for the portion of the flight at the time of the occurrence. N.B. the value is irrespective of whether the clearance to fly at the altitude had been granted.

Altitude is the vertical distance of the aircraft measured from mean sea level.

Id: 248 **Requested flight level (Requested flight level)**

Manual entry

The flight level requested by the aircraft for the portion of the flight at the time of the occurrence. N.B. The value is irrespective of whether the clearance to fly at the flight level had been granted.

Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 249 **Requested height (Requested height)**

Manual entry

The height requested by the aircraft for the portion of the flight at the time of the occurrence. N.B. The value is rrespective of whether the clearance to fly at the height had been granted.

Height is the vertical distance of the aircraft measured from a specified datum.

Id: 26 **The aircraft height at the time of the occurrence (Aircraft height)**

Manual entry

The aircraft height at the time of the occurrence. Height is the vertical distance of the aircraft, considered as a point, measured from a specified datum.
Note.- For the purposes of this system, the point referred to above is the lowest part of the aeroplane and the specified datum is surface below the aircraft.

Id: 22 **The aircraft's altitude at the time of the occurrence (Aircraft altitude)**

Manual entry

The aircraft's altitude at the time of the occurrence.

Altitude is the vertical distance of an aircraft measured from mean sea level.

Id: 23 **The aircraft's indicated altitude (Aircraft ind. altitude)**

Manual entry

The aircraft's altitude indicated by the altimeter.

Altitude is the vertical distance of an aircraft measured from mean sea level.

Section: Flight plan. (Flight plan)

This section provides information on the flight plan and the air traffic rules pertaining to this aircraft. Flight plan: Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft

Id: 79 **Current flight rules (Current flight rules)**

Predefined value list

The flight rules under which the aircraft was operating: e.g. IFR, VFR or Special VFR.

- IFR (The flight rules under which the aircraft was operating were instrument flight rules.) 1
- VFR (The flight rules under which the aircraft was operating were visual flight rules.) 2
- None (The aircraft was not operating under any current flight rules.) 97
- Controlled VFR (The flight rules under which the aircraft was operating were Controlled VFR.) 4

  Controlled VFR relates to a VFR flight cleared by air traffic control to operate within a control zone in VMC.
- Special VFR (The flight rules under which the aircraft was operating were special visual flight rules.) 3

  Special VFR relates to a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.
- VFR night (The flight rules under which the aircraft was operating were visual flight rules night.) 7
- Other (The flight rules under which the aircraft was operating were other than those listed above.) 98
- Unknown (The flight rules under which the aircraft was operating were not established.) 99

Id: 29 **Current traffic type (Current traffic type)**

Predefined value list

The type of the current traffic e.g. operational air traffic (OAT) or general air traffic (GAT). GAT encompasses all flights conducted in accordance with rules and procedures of ICAO.
N.B.. GAT can include military flights for which ICAO rules and procedures satisfy entirely their operational requirements. An example is a military transport aircraft flying on a civil airway route.
OAT encompasses all flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.
N.B.. OAT can include civil flights such as test-flights which require some deviation from ICAO rules to satisfy their operational requirements. : Eurocontrol (Flexible Use of Airspace Handbook)

- GAT (The current traffic type was general air traffic.) 2

  General Air Traffic:
  GAT encompasses all flights conducted in accordance with rules and procedures of ICAO
  Note.-GAT can include military flights for which ICAO rules and procedures satisfy entirely their operational requirements.e.g. military transport aircraft flying on a civil airway route
- OAT (The current traffic type was operational air traffic) 1

  Operational Air Traffic:
  OAT encompasses all flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.
  Note.- OAT can include civil flights such as test-flights which require some deviation from ICAO rules to satisfy their operational requirements.
- Unknown (The current traffic type was not determined.) 99

Id: 117 **Filed flight rules (Filed flight rules)**

Predefined value list

The filed flight rules, e.g. IFR or VFR.

- Instrument flight rules (The aircraft flight plan was filed for instrument flight rules.) 1
- IFR/VFR (The aircraft flight plan was filed for instrument flight rules/visual flight rules.) 5
- VFR/IFR (The aircraft flight plan was filed for visual flight rules/instrument flight rules.) 6
- Visual flight rules (The aircraft flight plan was filed for visual flight rules.) 2
- None (No aircraft flight plan was filed.) 97
- Controlled VFR (The aircraft flight plan was filed for controlled visual flight rules.) 4

  Controlled VFR relates to a VFR flight cleared by air traffic control to operate within a control zone in VMC.
- Special VFR (The aircraft flight plan was filed for special visual flight rules.) 3

  Special VFR relates to a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.
- VFR night (The aircraft flight plan was filed for visual flight rules night.) 7
- Other (The aircraft flight plan was filed for other rules than those listed above.) 98
- Unknown (The type of aircraft flight plan filed was not established.) 99

Id: 118 **Filed traffic type (Filed traffic type)**

Predefined value list

The filed type of traffic, i.e. OAT or GAT [operational air traffic or general air traffic].GAT encompasses all flights conducted in accordance with rules and procedures of ICAO. N.B. GAT can include military flights for which ICAO rules and procedures satisfy their operational requirements entirely. An example is a military transport aircraft flying on a civil airway route.OAT encompasses all flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.N.B. OAT can include civil flights such as test-flights which require some deviation from ICAO rules to satisfy their operational requirements.Eurocontrol (Flexible Use of Airspace Handbook).

- GAT (General air traffic.) 2
- OAT (Operational air traffic - military operations.) 1
- OAT/GAT (A mix of general air traffic and operational air traffic - military operations.) 3
- Unknown (The filed traffic type was unknown.) 99

Id: 297 **Flight plan type (Flight plan type)**

Predefined value list

The type of flight plan filed by this aircraft. Flight plan :Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

- AFIL (The type of flight plan was a flight plan filed in the air.) 4
- CPL (The type of flight plan was a current flight plan.) 2
- FPL (The type of flight plan was a filed flight plan.) 1

  Flight plan: Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft
- RPL (The type of flight plan was a repetitive flight plan.) 3
- Other (Other) 5
- Unknown (The type of flight plan filed was not established.) 99

Id: 277 **Secondary surveillance radar code (SSR code)**

Manual entry

The code entered by the aircraft flight crew to identify the aircraft return on the SSR. SSR is a surveillance radar which uses transmitters / receivers (interrogators) and transponders. It had its beginnings in wartime Identification Friend or Foe (IFF) systems, and transmits pulses of energy which trigger a response from an airborne transponder, with range and bearing obtained in the same way as primary radar.

Id: 278 **Secondary surveillance radar mode (SSR mode)**

Predefined value list

Secondary surveillance radar (SSR) mode, e.g. A, C or S. SSR Mode A is the basic ATC mode. SSR Mode C is used to obtain pressure altitude from the aircraft automatically. SSR Mode S makes available an air-ground data link, which could be used for ATS purposes in the high density airspace, in addition to its use for surveillance. ICAO Doc 9426.

- A (The secondary surveillance radar was mode A) 1

  SSR Mode A is the basic ATC mode. ICAO Document 9426.

- C (The secondary surveillance radar was mode C.) 2

  SSR Mode C is used to obtain pressure altitude from the aircraft automatically. ICAO Doc 9426.

- S (The secondary surveillance radar was Mode Select) 3

  In addition to its use for surveillance, the Mode S option of SSR also makes available an air-ground data link which could be used for ATS purposes in the high density airspace.

- None (No secondary surveillance radar was involved.) 97
- Other (The secondary surveillance radar mode was other than A, C or S.) 98
- Unknown (The secondary surveillance radar mode is not known.) 99

Topic: Aircraft

Section: Aircraft description. (Aircraft description)

Aircraft description in terms of its category, size, type of propulsion and equipment carried on board.

Id: 32 **Aircraft category (Aircraft category)**

Predefined value list

Aircraft category. Classification of aircraft according to specified basic characteristics, e.g. aeroplane, helicopter, glider, free balloon. ICAO Annex 1.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. (Annex 8)

- Fixed wing (The category of aircraft was a fixed wing.) 1

  A fixed wing aircraft is a heavier than air aircraft with wings which remained in a fixed position under given conditions of flight. May include variable geometry aircraft.

- Helicopter (The category of aircraft was a helicopter.) 2

  A helicopter is a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power driven rotors on substantially vertical axes.

- Dirigible (The category of aircraft was dirigible.) 4

  A power-driven lighter-than-air aircraft. (An 7)

- Gyroplane (The category of aircraft was a gyroplane.) 5

  A heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors which rotate freely on substantially vertical axes.
  (An 7)
  Formerly known as "autogyro"

- Balloon (The category of aircraft was a balloon.) 3

  A non-power-driven lighter-than-air aircraft.
  Note.- For the purposes of ICAO Annex 1, this definition applies to free balloons.
  The note to the above definition appears only in ICAO Annex 1.

- Microlight (The category of aircraft was a microlight.) 6

  May also be called "ultra-light".
  The definitions vary from State to State.
  One definition in ICAO documentation reads: an aircraft having a MTOM not exceeding 454 kg. (1 000 lbs) which is not usually used for public transport purposes. (ICAO Doc 9626, 1996, 1st ed., p. 5.2-2)
  JAR definition: 'Microlight' is an aeroplane having no more than two seats, Vs,, not exceeding 35 knots (65 KM/h) CAS, and
  a maximum take-off mass of no more than:-
  300 kg for a landplane, single seater; or
  330 kg for an amphibian or floatplane, single seater; or
  495 kg for an amphibian or floatplane, two-seater, provided that a microlight capable of operating as both a floatplane and a landplane falls below both MTOM limits, as appropriate.
  - 450 kg for a landplane, two-seater; or
  Note: Foot-launched aircraft are excluded from this definition.

- Glider (The category of aircraft was a glider..) 7

  JAR:'Sailplane' means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine.

- Other (The category of aircraft was other than one of the above.) 98

  e.g.:Ornithopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on planes to which a flapping motion is imparted. ICAO Annex 7.

- Unknown (The aircraft category was not determined.) 99

Id: 232 **Aircraft propulsion type (Propulsion type)**

Predefined value list

The type of propulsion system used by this aircraft, e.g. reciprocating engine or turbo-fan engine.

- Reciprocating (The aircraft type of propulsion system was a reciprocating engine.) 1

  Reciprocating Engine :

  An engine, especially an internal-combustion engine, in which a piston or pistons moving back and forth work upon a crankshaft or other device to create rotational movement.

  Also include here:

  Rotary Engine

  An engine, especially an internal-combustion engine, in which the pressure of combustion is contained in a chamber formed by part of the housing and sealed in by one face of the triangular rotor work upon a crankshaft or other device to create rotational movement.

  Like a piston engine, the rotary engine uses the pressure created when a combination of air and fuel is burned. In a piston engine, that pressure is contained in the cylinders and forces pistons to move back and forth. The connecting rods and crankshaft convert the reciprocating motion of the pistons into rotational motion that can be used to power a car.
  In a rotary engine, the pressure of combustion is contained in a chamber formed by part of the housing and sealed in by one face of the triangular rotor, which is what the engine uses instead of pistons.

- Turboprop (The aircraft type of propulsion system was turboprop engine.) 2

  Turbo-Prop engine:
  A simple turbojet core with the addition of a propeller output reduction gearbox and a propeller shaft.

  Types of Turbo-Prop

  1.Free Turbine Turbo-Prop
  2.Fixed Turbine Turbo-Prop

- Turbofan (The aircraft type of propulsion system was turbofan engine.) 5

  Turbofan engine: A turbojet engine in which additional propulsive thrust is gained by extending a portion of the compressor or turbine blades outside the inner engine case. The extended blades propel bypass air flows along the engine axis but between the inner and outer engine casing. This air is not combusted but does provide additional thrust caused by the propulsive effect imparted to it by the extended compressor blading.

  Types of Turbo-Fan

  1.Low Bypass
  2.Medium Bypass
  3.High Bypass
  4.Ultra-High Bypass

- Turbojet (The aircraft type of propulsion system was turbojet engine.) 4

  Turbo-Jet engine:

  A jet engine incorporating a turbine-driven air compressor to take in and compress the air for the combustion of fuel (or for heating by a nuclear reactor), the gases of combustion (or the heated air) being used both to rotate the turbine and to create a thrust producing jet. Often called a turbojet.

- Turboshaft (The aircraft type of propulsion system was turboshaft engine.) 3

  Turbo-Shaft engine:
  A gas Turbine engine designhned for use in Rotary Wing Aircraft. Turboshaft engines provide power to a transmission unit connected to a rotar, rather than to a propeller.

  Types of Turbo-Shaft

  1.Free Turbine Turbo-Shaft
  2.Fixed Turbine Turbo-Shaft

- None (The aircraft was a glider.) 97
- Other (The type of propulsion unit fitted to the aircraft was other than one of the types listed above.) 98
- Unknown (The type of propulsion unit fitted to the aircraft is unknown.) 99

Id: 90 **Electronic Flight Instrument System (EFIS) (EFIS)**

Predefined value list

Information on the installation of Electronic Flight Instrument System.
EFIS, is a flight deck instrument display system in which the display technology used is electronic rather than electromechanical. EFIS normally consists of a primary flight display (PFD), multi-function display (MFD) and Engine Indicating and Crew Alerting System (EICAS) display.
If not all instruments are integrated, the installatioin is called 'partial'.

- Yes, full (A full electronic flight instrument system was available.) 1
- Yes, partial (A partial electronic flight instrument system was available.) 2
- No (No electronic flight instrument system was available.) 3
- Unknown (Whether an electronic flight instrument system was available is unknown.) 99

Id: 128 **Global Navigation Satellite System installed (GNSS installed)**

Predefined value list

GNSS is a worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation.

- Yes (A global navigation satellite system was installed.) 1

  A GNSS is a worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation.

- No (A global navigation satellite system was not installed.) 2

  A GNSS is a worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation.

- Unknown (Whether a global navigation satellite system was installed is unknown.) 99

  A GNSS is a worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation.

Id: 166 **Landing gear type (Landing gear type)**

Predefined value list

The type of landing gear installed on this aircraft, e.g. fixed, skis or floats.

- Tricycle, retractable (The landing gear type was tricycle, retractable.) 6

  Tricycle landing gear consists of a forward (nose) wheel and wheel assemblies located aft of the aircraft's centre of gravity. The nose gear is steerable by means of the rudder pedals. The landing gear can be retracted into the body (or wing). This includes landing gears in which the aircraft is, in addition to the tricycle gear, supported by a central body gear as in the MD11.

- Tricycle, fixed (The landing gear type was tricycle, fixed.) 5

  Tricycle landing gear consists of a forward (nose) wheel and two or more wheel assemblies located aft of the aircraft's centre of gravity. The nose gear is steerable by means of the rudder pedals. It is fixed, i.e. it cannot be retracted into the body or wing.

- Amphibious (The landing gear type was amphibious.) 3

  Amphibious is a landing gear that is designed to operate on water via the aircraft's airframe or floats attached to the airframe and to operate on land via wheeled landing gear.

- Hull/float equipped (The aircraft used its hull/float for landings.) 1

  This term is used for a landing gear that is designed to operate on water via the aircraft's airframe or via floats attached to the airframe and does not include wheeled landing gear.

- Ski (The landing gear type was ski.) 4

  Ski is a landing gear designed to accommodate operations on snow and ice.

- Tail wheel (The landing gear type was a tail wheel.) 2

  This term is used for a landing gear consisting of two wheels forward of the aircraft's center of gravity and a third, smaller wheel at the tail. This small wheel can turn in any direction.

- Tailwheel/tailskid, fixed (The landing gear type was a tailwheel/tailskid fixed.) 8

  Tailwheel/tailskid fixed is a landing gear consisting of two wheel assemblies forward of the aircraft's centre of gravity and a smaller wheel assembly or skid aft of the centre of gravity. The landing gear cannot be retracted.

- Tailwheel/tailskid, retractable (The landing gear type was a tailwheel/tailskid retractable.) 9

  Tailwheel/tailskid retractable is a landing gear consisting of retractable two wheel assemblies forward of the aircraft's centre of gravity and a smaller wheel assembly or skid aft of the centre of gravity, which may be retractable.

- Skid (The landing gear type was a skid.) 7

  Skid is a landing gear that consists of a set of beams supporting the aircraft on the ground. Skids are usually found on helicopters.

- Mono-wheel/skid, fixed (The landing gear type was a mono-wheel/skid fixed.) 10

  This term is used for a landing gear consisting of one centered wheel or skid. Additional supports may include smaller wheels or skids. The landing gear cannot be retracted.

- Mono-wheel, retractable (The landing gear type was a mono-wheel retractable.) 11

  This term is used for a landing gear consisting of one retractable centered wheel. Additional supports may include smaller wheels or skids, which may be retractable.

- Quadricycle (The landing gear type was a quadricycle.) 12

  This term is used for a landing gear that consists of four retractable wheel assemblies: two forward and two aft of the aircraft's centre of gravity.

- Tandem (The landing gear type was a tandem.) 13

  This term is used for a landing gear that consists of retractable two wheel assemblies mounted on the aircraft centerline one behind the other. Additional supports may include smaller wheels or skids. Tandem landing gear is also known as bicycle landing gear.

- Other (The landing gear type was a other than one of those listed above.) 98
- Unknown (The landing gear type was unknown.) 99

Id: 319 Mass group (Mass group)

Predefined value list

The mass group of the aircraft based on the maximum certificated take-off mass.

groups are:

0 - 2250 kg
2251 - 5700 kg
5701 - 27000 kg
27001 - 272000 kg
>272000 kg
Mass:A quantity characteristic of a body, which relates the attraction of this body toward another body. Since the mass of a body is not fixed in magnitude, all masses are referred to the standard kilogram, which is a lump of platinum.
Mass of a body always has the same value; weight changes with change in the acceleration of gravity.

Note: Near the earth, the force of gravity creates a condition where mass is equal to weight. Thus the confusion and the often inter-changeability of Mass &Weight.

- 0-2 250 Kg (The aircraft's mass group was 0 to 2 250 Kg.) 1

  The aircraft's maximum certificated take-off mass was less than 2 251 kilograms.

- 2 251 to 5 700 Kg (The aircraft's mass group was 2 250 to 5 700 Kg) 2

  The aircraft's maximum certificated take-off mass was 2 251 to 5 700 kilograms.

- 5 701 to 27 000 Kg (The aircraft's mass group was 5 700 to 27 000 Kg) 3
  The aircraft's maximum certificated take-off mass was between 5 701 and 27 000 kilograms.
- 27 001 to 272 000 Kg (The aircraft's mass group was 27 001 to 272 000 Kg.) 4
  The aircraft's maximum certificated take-off mass was between 27 001 and 272 000 kilograms.
- > 272 000 Kg (The aircraft's mass group was greater than 272 000 Kg.) 5
  The aircraft's maximum certificated take-off mass was greater than 272 000 kilograms.
- Unknown (The aircraft's mass group was not established.) 99

Id: 175 **Maximum take-off mass (Maximum take-off mass)**

Manual entry

The maximum permissible take-off mass of the aircraft according to the Certificate of Airworthiness, the flight manual or other official document.

Id: 209 **Number of engines (Number of engines)**

Manual entry

Information on the number of engines of this aircraft.

Id: 313 **Wake turbulence category (Wake turb. category)**

Predefined value list

Wake turbulence categories are allocated according to the maximum certificated take-off mass of the aircraft by which it is generated: HEAVY (H) - all aircraft types of 136 000 kg or more; MEDIUM (M) - aircraft types less than 136 000 kg but more than 7 000 kg; and LIGHT (L) - aircraft types of 7 000 kg or less. ICAO Doc 9426.

- Light (The wake turbulence was light.) 1
  The wake turbulence generated by aircraft with a maximum take-off mass of 7000 kg or less. ICAO Doc 9426
- Medium (The wake turbulence was medium.) 2
  The wake turbulence generated by aircraft with a maximum take-off mass greater than 7000 kg but no more than 136 000 kg. ICAO Doc 9426
- Heavy (The wake turbulence was heavy.) 3
  The wake turbulence generated by aircraft with a maximum take-off mass greater than 136 000 kg. ICAO Doc 9426

Section: Aircraft identification. (Aircraft identification)

Information on the aircraft manufacturer and model/series as well as the registration, serial number, year built and the call-sign of the aircraft. Enter all available information.

Id: 54 **Aircraft call sign (Call sign)**

Manual entry

The assigned International Telecommunications Union radio call sign of the aircraft. A group of letters, figures or a combination thereof which is either identical to, or the coded equivalent of, the aircraft call sign to be used in air-ground communications, and which is used to identify the aircraft in ground-ground air traffic services communication

Id: 21 **Aircraft manufacturer/model (Manufacturer/model)**

Predefined value list : values from table [V4 CD Aircrafts ICAO]

The name of the aircraft manufacturer and model.

Id: 244 **Aircraft registration (Aircraft registration)**

Manual entry

The mark used to identify an aircraft. The mark consists of a common mark or nationality mark followed by a registration mark. The nationality mark shall be selected from the series of nationality symbols included in the radio call signs allocated to the State of Registry by the International Telecommunication Union. The nationality mark shall be notified to the International Civil Aviation Organization. The registration mark shall be letters, numbers, or a combination of letters and numbers, and shall be that assigned by the State of Registry or common mark registering authority. When letters are used for the registration mark, combinations shall not be used which might be confused with the five-letter combinations used in the International Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT. Rules regarding registration marks do not apply to meteorological pilot balloons used exclusively for meteorological purposes or to unmanned free balloons without a payload. ICAO Annex 7

Id: 254 **Aircraft serial number (Aircraft serial number)**

Manual entry

The serial number of the aircraft (free text field).

Id: 281 **Aircraft State of registry (State of registry)**

Predefined value list : values from table [V4 CD States]

State of Registry. The State on whose register the aircraft is entered.

Id: 34 **Aircraft type designator assigned by air traffic management (Type designator)**

Predefined value list : values from table [V4 CD Aircrafts ATM]

The four character code assigned to the aircraft. ICAO Doc 8643.

Id: 120 **Flight number (airline operation) (Flight number)**

Manual entry

Id: 327 **Year of aircraft manufacture (Year built)**

Manual entry

The year the aircraft was built.

Section: Aircraft operation. (Aircraft Operation)

This section provides information on the operation of the aircraft such as the name of the operator, the operator's 3-letter designator, if available, and the type of operation. There must be an entry in the operation type to indicate whether this flight was an airline (public transport) operation, general aviation, military or state flight.

Id: 28 **Additional operational information of interest to ICAO (ICAO information)**

Predefined value list

Additional operational information of interest to ICAO includes: off-shore operation, humanitarian operation and UN flight operation.

- None (The was no additional operational information.) 97

  The was no additional operational information of interest to ICAO.

- Humanitarian/Relief (The type of operation was a humanitarian/relief operation.) 3

  Relief flights. Flights operated for humanitarian purposes which carry relief personnel and relief supplies such as food, clothing, shelter, medical and other items during or after an emergency and/or disaster and/or are used to evacuate persons from a place where their life or health is threatened by such emergency and/or disaster to a safe haven in the same State or another State willing to receive such persons. ICAO Annex 9.

- Off-shore (The type of operation was an off-shore operation.) 1

  An off-shore operation is an aircraft flight to a landing site off the coast. The item was included to permit to identify such flights because of the related risk factors. Note, this should not be confused with "off-shore" in the sense of "outside territorial waters".

- United Nations (The type of operation was a United Nations operation.) 2

  An United Nations is a flight conducted by or for a United Nations organization.

- Unknown (Whether the was any additional operational information of interest to ICAO was not determined.) 99

Id: 214 **Operation type (Operation type)**

Predefined value list : values from table [V4 CD Aviation Operations]

The type of operation indicates whether this was a public transport operation (airline operation) or a general aviation flight.

Id: 215 **Operator (airline operation) (Operator)**

Predefined value list : values from table [V4 CD Operators]

The name of the operator exercising operational control over the flight should be entered for airline operations.
Annex 6: Part I: Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.
Operational control: The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

Id: 216 **Operator type (general aviation) (Operator type)**

Predefined value list

Information on the type of general aviation operator, e.g. whether it was a rental organization, a flying club or a government agency.

- Not applicable (Not applicable) 97

  Not applicable

- Corporate/executive (The type of operator was a corporate/executive.) 2

- Flying club/school (The type of operator was a flying club/school.) 1
- Fractional ownership (Fractional ownership) 100

  Fractional ownership:Fractional ownership is an investment in the private air travel arena. Essentially, you purchase a partial interest in an aircraft that is operated by an aviation company as part of its fleet. As an owner, you have the right to use any comparable aircraft in the fleet, on demand, for a predetermined number of hours each year. Generally speaking, fractional ownership is said to be for those who fly between 50 and 200 hours per year. (A typical agreement might include 100 hours of flying time per year for each 1/8 share.) The fractional provider manages the aircraft and the rest of its fleet, providing pilots, maintenance, insurance, catering and other services.
- Government agency (The type of operator was a government agency.) 3
- Private owner (The type of operator was a private owner.) 4
- Sales/rental/service (The type of operator was a sales/rental/service.) 5
- Other (The type of operator was other than one of those listed above.) 98
- Unknown (The type of operator is unknown.) 99

Section: Aircraft status. (Aircraft status)

Information on the status of the aircraft in terms of the technical documentation and the aircraft utilization (hours and cycles).

Id: 33 **Aircraft total cycles (Total cycles a/c)**

Manual entry

The total number of cycles to which this aircraft had been exposed.

Id: 291 **Aircraft total time (Aircraft total time)**

Manual entry

The total time of use of this aircraft in hours.

Id: 35 **Airworthiness certificate (Airworthiness cert.)**

Predefined value list

A certificate provided by the national government organization of the Contracting Party responsible for regulating the airworthiness and environmental certification, approval or acceptance of aeronautical products, stating that the aircraft is fit to fly.

- Valid (The aircraft's Certificate of Airworthiness was completed correctly and up to date.) 1
- Invalid (The aircraft's Certificate of Airworthiness was not completed correctly and or was out of date.) 2
- Other (The aircraft did not require a Certificate of Airworthiness.) 98
- Unknown (The validity of, or need for, a Certificate of Airworthiness was not determined.) 99

Id: 174 **Maintenance documents (Maintenance docs.)**

Predefined value list

Information on the status of the maintenance documentation, i.e. up-to-date or not. E.g.: Maintenance release. A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or under an equivalent system.

- Current (The maintenance documents were up to date.) 1
- Not current (The maintenance documents were not up to date.) 2
- Other (Some maintenance documents were up to date others were not.) 98
- Unknown (Whether the maintenance documents were current is unknown.) 99

Section: Fuel. (Fuel)

Information on the fuel type recommended as well as the fuel type used. Also includes the quantity of fuel on board.

Id: 234 **Quantity of fuel on board (Fuel quantity on board)**
Manual entry
The quantity of fuel on board the aircraft at the time of the occurrence. This information is particularly important for occurrences involving fires.

Id: 125 **Recommended fuel type (Recommended fuel type)**
Predefined value list : values from table [V4 CD Fuels]
The recommended fuel type for this engine.

Id: 126 **Type of fuel used (Fuel type used)**
Predefined value list : values from table [V4 CD Fuels]
The type of fuel used on this flight.

Topic: Aircraft meteo

Section: Aircraft general meteorological conditions. (Meteorology)

This section provides information on the general meteorological conditions relating to the aircraft at the time of the occurrence.

Id: 123 **The flight phase of the aircraft for which the meteorological information is provided (Flight phase, wx info)**

Predefined value list

- Taxi/standing (The meteorological information provided for this aircraft relates to the taxi/standing flight phase of this aircraft.)	4
- Take-off/climb (The meteorological information provided for this aircraft relates to the take-off/climb phase of this aircraft.)	1
- En route (The meteorological information provided for this aircraft relates to the en route flight phase of this aircraft.)	2
- Approach/landing (The meteorological information provided for this aircraft relates to the approach/landing flight phase of this aircraft.)	3
- Unknown (The phase of flight during which the meteorological information was passed to the aircraft's flight crew is unknown.)	99

Section: Icing. (Icing)

This section provides information on ambient icing conditions and the aircraft approval for operating in the prevailing icing conditions.

Id: 39 **Aircraft approved for icing conditions (A/c app for icing cond)**

Predefined value list

The icing conditions for which the aircraft was approved.

- No (The aircraft was not approved for flight in the known icing conditions.) 1
- Yes-light (The aircraft was approved for flight in the light icing conditions.) 2

  Light icing is icing which does not require a change in heading and/or altitude, includes:
  Trace of Icing: Ice becomes perceptible on an aircraft. The rate of ice accumulation is slightly greater than the rate of sublimation. It is not hazardous even though de-icing/anti-icing equipment is not utilized, unless encountered for an extended period of time--over one hour.
- Yes-moderate (The aircraft was approved for flight in the moderate icing conditions.) 3

  Moderate icing is icing in which a change in heading and/or altitude may be considered desirable.
- Yes-severe (The aircraft was approved for flight in the severe icing conditions.) 4

  Severe icing is icing in which an immediate change in heading and/or altitude is considered to be essential.
- Unknown (Whether the aircraft was approved for flight in the icing conditions encountered was not known.) 99

Id: 142 **Icing intensity (Icing intensity)**

Predefined value list

The intensity of the icing conditions encountered.

- None (No icing occurred.) 97
- Light (The icing intensity was light.) 1

  LLight Icing: The rate of ice accumulation that may create a problem if the flight is prolonged in this environment (over one hour). Occasional use of de-icing equipment removes/prevents accumulation. It does not present a problem if de-icing/anti-icing equipment is used.
- Moderate (The icing intensity was moderate.) 2

  Moderate Icing: The rate of ice accumulation on an aircraft is such that even short encounters becomes potentially hazardous and the use of de-icing/anti-icing equipment or a diversion is necessary.
- Severe (The icing intensity was severe.) 3

  Severe Icing: The rate of ice accumulation on an aircraft is such that de-icing/anti-icing equipment fails to reduce or control the hazard. Immediate diversion is necessary.
- Unknown (The icing intensity was unknown.) 99

Section: Turbulence. (Turbulence)

This section provides information on turbulence type and intensity as well as on mountain waves.

Id: 189 **Mountain wave intensity (Mountain wave int.)**

Predefined value list

A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends, some distance after crossing the highest ground, to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

- None (The was no mountain wave present.) 97

  A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends some distance after crossing the highest ground to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

- Light (The intensity of the mountain wave was light.) 1

  A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends some distance after crossing the highest ground to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

- Moderate (The intensity of the mountain wave was moderate.) 2

  A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends some distance after crossing the highest ground to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

- Severe (The intensity of the mountain wave was severe.) 3

  A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends some distance after crossing the highest ground to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

- Unknown (The intensity of the mountain wave is unknown.) 99

  A mountain wave is the result of the surface wind being deflected upward by a barrier of high ground. The resulting airflow descends some distance after crossing the highest ground to approximately its original level. Such disturbances create turbulence, down drafts, temperature variations and localised precipitation.

Id: 293 **Turbulence intensity (Turbulence intensity)**

Predefined value list

The intensity of the turbulence: light, moderate or severe.
Turbulence: The irregular and instantaneous motions of air which is made up of a number of small of eddies that travel in the general air current. Atmospheric turbulence is caused by random fluctuations in the wind flow. It can be caused by thermal or convective currents, differences in terrain and wind speed, along a frontal zone, or variation in temperature and pressure.

- None (No turbulence was experienced.) 97

  No turbulence was experienced.

- Light (Light turbulence was experienced.) 1

  Light turbulence is that turbulence in which cabin crew can move about the aircraft without losing their balance. Turbulence that momentarily causes slight, erratic changes in altitude or attitude (this could be reported as 'light turbulence'), or turbulence that causes slight, rapid and somewhat rhythmic bumpiness without appreciable changes in altitude or attitude (this could be reported as 'light chop').

- Moderate (Moderate turbulence was experienced.) 2

  Moderate turbulence is that in which cabin crew need to use handholds to move about the cabin and meal service must be discontinued.
  Moderate turbulence - similar to light turbulence, but greater intensity. Changes in altitude/attitude occur. Aircraft remains in control at all times. Variations in indicated air speed.
  Turbulence that causes changes in altitude or attitude, but in which the aircraft remains in control at all times, and that usually causes variations in indicated airspeed (IAS) (this could be reported as 'moderate turbulence'), or turbulence that causes rapid bumps or jolts without appreciable changes in aircraft altitude or attitude (this could be reported as 'moderate chop').

- Severe (Severe turbulence was experienced.) 3

  Severe Turbulence : Turbulence which causes loose objects to move around the cabin and causes brief periods where effective control of the aircraft is impossible. It may cause damage to aircraft structures.
  Also:Turbulence that causes large, abrupt changes in altitude or attitude. It usually causes large variations in indicated airspeed (IAS). Aircraft may be momentarily
  out of control.
  Extreme turbulence is defined as causing structural damage and prolonged loss of control of the aircraft. Severe and extreme turbulence can occur in convective activity (thunderstorms).
  Clear Air Turbulence (CAT) can occur in conjunction with the Jet Stream or in association with mountainous terrain over which high speed winds are moving.

- Unknown (The intensity of the turbulence experienced is unknown.) 99

Id: 294 Turbulence type (Turbulence type)

Predefined value list

Information on the type of turbulence, i.e. whether this was clear air turbulence (CAT) or turbulence in cloud.
Turbulence:The irregular and instantaneous motions of air which is made up of a number of small of eddies that travel in the general air current. Atmospheric turbulence is caused by random fluctuations
in the wind flow. It can be caused by thermal or convective currents, differences in terrain and
wind speed, along a frontal zone, or variation in temperature and pressure.

- In clear air (Turbulence was encountered in clear air.) 1

  Clear Air Turbulence (CAT) is the bumpiness experienced by aircraft at high altitudes (above 18,000 feet) in either cloud-free conditions or in stratiform clouds. CAT occurs when undulations (known as gravity waves) in the upper atmosphere become steep and unstable, then break down into chaotic motion. The scale of wave motion that normally affects jet aircraft is on the order of ~10 meters to ~1-2 kilometers. These unstable waves occur when vertical wind shear becomes locally excessive, allowing the waves to overcome the stability of environmental temperature conditions. This condition is known as Kelvin-Helmholtz instability.

  Most CAT occurs on the fringes of (not within the core of) the jet stream, in the vicinity of upper level frontal zones where temperature contrasts are strong.

  CAT may also occur when strong winds cross a mountain range in certain thermal conditions, allowing gravity waves to amplify and propagate vertically toward the stratosphere. These 'mountain waves' may be smooth undulations, resulting in updrafts and downdrafts (UDDF in pilot report code), or can break down into smaller scale turbulence.

  A third instance in which CAT occurs is when strong winds encounter the tops of thunderstorm clouds, resulting in strong shear waves that extend well downstream from the convective cloud.

- Induced by cloud (Turbulence was encountered in conjunction with clouds / thunderstorms) 2

  Turbulence was encountered in conjunction with clouds / convective turbulence / thunderstorms

- None (No turbulence was encountered.) 97
- Unknown (The type of turbulence was encountered is unknown.) 99

Section: Visibility. (Visibility/Visibility restrictions)

This section provides information on the visibility conditions pertaining to this aircraft.

Id: 615 **Runway visual range measured at the end of the runway (RVR end)**

Manual entry

Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line. ICAO Annex 3.
Runway Visual Range (RVR)- An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end. It is based on the sighting of either high intensity runway lights or on the visual contrast of other targets whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal visual range, not slant visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. RVR is used in lieu of RVV and/or prevailing visibility in determining minimums for a particular runway.

1. Touchdown RVR- The RVR visibility readout values obtained from RVR equipment serving the runway touchdown zone.
2. Mid-RVR- The RVR readout values obtained from RVR equipment located midfield of the runway.
3. Rollout RVR- The RVR readout values obtained from RVR equipment located nearest the rollout end of the runway.

Id: 614 **Runway visual range measured at the middle of the runway (RVR middle)**

Manual entry

Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line. ICAO Annex 3.
Runway Visual Range (RVR)- An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end. It is based on the sighting of either high intensity runway lights or on the visual contrast of other targets whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal visual range, not slant visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. RVR is used in lieu of RVV and/or prevailing visibility in determining minimums for a particular runway.

1. Touchdown RVR- The RVR visibility readout values obtained from RVR equipment serving the runway touchdown zone.
2. Mid-RVR- The RVR readout values obtained from RVR equipment located midfield of the runway.
3. Rollout RVR- The RVR readout values obtained from RVR equipment located nearest the rollout end of the runway.

Id: 505 Runway visual range measured at the start of the runway (RVR start)

Manual entry

Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line. ICAO Annex 3.
Runway Visual Range (RVR)- An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end. It is based on the sighting of either high intensity runway lights or on the visual contrast of other targets whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal visual range, not slant visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. RVR is used in lieu of RVV and/or prevailing visibility in determining minimums for a particular runway.

1. Touchdown RVR- The RVR visibility readout values obtained from RVR equipment serving the runway touchdown zone.
2. Mid-RVR- The RVR readout values obtained from RVR equipment located midfield of the runway.
3. Rollout RVR- The RVR readout values obtained from RVR equipment located nearest the rollout end of the runway.

Id: 311 Visibility restrictions (Visibility restrictions)

Predefined value list

Visibility for aeronautical purposes is the greater of: a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background; b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.
N.B. The two distances have different values in air of a given extinction coefficient, and the latter b) varies with the background illumination. The former a) is represented by the meteorological optical range (MOR).

- None (No restriction to visibility was present.) 97
- Cloud (The visibility was restricted by cloud.) 5

  Cloud is a visible cluster of tiny water and/or ice particles in the atmosphere.
- Dust (The visibility was restricted by dust.) 6
- Fog/mist (The visibility was restricted by fog/mist.) 1

  Fog: cloud at ground level, and occurs when air is cooled to its dew point and below, or when atmosperic moisture increases through evaporation from water that is warmer than the air. Visibility is below 1000m (ICAO Annex 3).

  Mist is microscopic water droplets suspended in the air. It casts a thin greyish veil over the landscape but reduces visibility to a lesser extent than fog. Visibility is over 1000m but do not exceed 5000m (ICAO Annex 3).
- Haze (The visibility was restricted by haze.) 2

  Haze consists of fine particles of dust and pollution suspended in the atmosphere and is distinguished from fog by its bluish or yellowish tinge.
- Freezing fog (The visibility was restricted by freezing fog.) 7
- Light conditions (The visibility was restricted by light conditions.) 3
- Smoke (The visibility was restricted by smoke.) 4
- Precipitation (Precipitation) 8

  To be used whenever any type of precipitation restricted the visibility

- Other (The visibility was restricted by factors other than those listed above.) 98
- Unknown (The factors that restricted the visibility were not determined.) 99

Section: Weather briefing and forecast. (Weather briefing/forecast)

This section provides general information on weather briefings and forecasts pertaining to this aircraft.

Id: 265 Pilot advised of significant weather (Pilot aware-sig weather)

Predefined value list

Information whether the pilot was aware of information concerning en-route weather phenomena which may affect the safety of aircraft operations (SIGMET)
SIGMET: Meteorological information issued concerning weather significant to the safety of aircraft. SIGMET advisories include the following:
(a) active thunderstorm areas or lines of thunderstorms;
(b) hurricanes, tropical storms;
(c) moderate hail;
(d) severe turbulence;
(e) severe icing;
(f) marked mountain waves;
(g) widespread sandstorms and dust storms;
(h) volcanic ash;
(i) severe squall lines;
(j) low-level wind shear; and
(k) tornadoes or waterspouts.

· *abbreviation: SIGMET*

- Yes (The pilot was advised of the significant weather.) 1
- No (The pilot was not advised of the significant weather.) 2
- Not applicable (There was no significant weather.) 97
- Unknown (Whether the pilot was advised of the significant weather is unknown.) 99

Id: 317 Weather briefing obtained (Weather briefing obtained)

Predefined value list

Information whether the crew obtained a weather briefing and when. A briefing is an oral commentary on existing and/or expected meteorological conditions. ICAO Annex 3.

- None (No weather briefing was obtained by the crew.) 97
- Pre-flight (The crew obtained a weather briefing before the flight.) 1
- In-flight (The crew obtained a weather briefing in-flight.) 2
- Pre- and in-flight (The crew obtained a weather briefing both before and during the flight.) 3
- Unknown (The stage at which the crew obtained their weather briefing was not established.) 99

Id: 318 Weather forecast (Weather forecast)

Predefined value list

A weather forecast is a statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace. ICAO Annex 11.

This field is used to collect information about the level of correctness of the weather forecast for this aircraft.

- Substantially correct (The weather forecast was substantially correct.) 1
- Considerably better (The weather forecast was for conditions considerably better than actual.) 2

- Considerably worse (The weather forecast was for conditions considerably worse than actual.)	3
- Unknown (The accuracy of the weather forecast was not established.)	99

Section: Wind during take-off landing. (Wind at take-off & landing)

This section provides information on wind during take-off and landing, in particular on the relative wind condition, windshear, microburst and related headwind loss.

Id: 78 **Crosswind component (Crosswind comp.)**

Manual entry

The value of the cross-wind component of the wind in metres per second. N.B. Use for take-off and landing occurrences.
Wind is the air motion relative to the earth's surface.

Id: 139 **Headwind loss (Headwind loss)**

Manual entry

The amount of negative windshear experienced in knots or km/h.
Wind is the air motion relative to the earth's surface.

Id: 178 **Microburst (Microburst)**

Predefined value list

A microburst is a strong localized downdraft that induces a sudden outflow of damaging horizontal winds on or near the surface with a horizontal extent between 0.4 and 4 km. ICAO Circular 186 - Wind Shear.
US:A small downburst, less than 2 1/2 miles in diameter and lasting 2 to 5 minutes. A strong downburst greater that 4 km across in called a "macroburst".

- Yes (There was microburst activity.) 1

  A microburst is a strong localized downdraft which includes a sudden outflow of damaging winds on or near the ground with a horizontal extent between 0.4 and 4 km.

- No (There was no microburst activity.) 2

  A microburst is a strong localized downdraft which includes a sudden outflow of damaging winds on or near the ground with a horizontal extent between 0.4 and 4 km.

- Unknown (The intensity of the microburst is unknown.) 99

  A microburst is a strong localized downdraft which includes a sudden outflow of damaging winds on or near the ground with a horizontal extent between 0.4 and 4 km.

Id: 245 **Relative wind direction (Relative wind dir.)**

Predefined value list

The direction of the wind relative to the flight path of the aircraft, i.e. crosswind, headwind, tailwind, quartering headwind or quartering tailwind.
Wind is the air motion relative to the earth's surface.

- Crosswind (The relative wind direction was a crosswind.) 3
- Head wind (The relative wind direction was a head wind.) 1
- Quartering headwind (The relative wind direction was a quartering headwind.) 4
- Quartering tailwind (The relative wind direction was a quartering tailwind.) 5
- Tail wind (The relative wind direction was a tail wind.) 2
- Unknown (The relative wind direction is unknown.) 99

Id: 323 **Windshear (Windshear)**

Predefined value list

Information whether there was windshear and, if so, its intensity.
Windshear: "A change in wind speed and/or direction in space, including updrafts and downdrafts". ICAO Circular 186 - Wind Shear.

- None (No wind shear existed.) 97
- Light (The windshear conditions were light.) 1

  Windshear is a change in wind speed and/or direction in space, including updrafts and downdrafts. (ICAO Circular 186 - Wind Shear)
  light: based on the subjectice assessment of the intensity of the windshear.
- Moderate (The windshear conditions were moderate.) 2

  Windshear is a change in wind speed and/or direction in space, including updrafts and downdrafts. (ICAO Circular 186 - Wind Shear)
- Severe (The windshear conditions were severe.) 4

  Windshear is a change in wind speed and/or direction in space, including updrafts and downdrafts. (ICAO Circular 186 - Wind Shear)
  Severe windshear: A wind shear of such intensity and duration which, if encontered, would exceed the performance capability of a particular aircraft type, and cause inadvertend loss of control.
- Strong (The windshear conditions were strong.) 3

  Windshear is a change in wind speed and/or direction in space, including updrafts and downdrafts. (ICAO Circular 186 - Wind Shear)
- Unknown (The windshear conditions were unknown.) 99

  A windshear is a change in wind speed and/or direction in space, including updrafts and downdrafts.

Id: 324 **Windshear alert installed (W/Shear alert install)**

Predefined value list

Information whether a windshear alert system was installed at the location.

- Yes (A windshear alert was installed.) 1
- No (No windshear alert was installed.) 2
- Unknown (Whether a windshear alert was installed is unknown.) 99

Section: Wind. (Wind)

This section provides information on wind direction, speed and gusts. The information to be entered is the best information that could be established in the investigation from all available sources.

Id: 176 **Maximum wind gust (Maximum gust)**

Manual entry

The maximum speed of a wind gust in knots or km/h. ICAO Annex 3.
A gust is any sudden increase of wind of short duration, usually a few seconds.

Id: 320 **Wind direction (Wind direction)**

Manual entry

The direction of the wind in degrees.
Wind is the horizontal movement of air relative to the earth's surface and is caused by variations in temperature and pressure (for instance, air rises as it warms and a cool breeze moves in to take the place of the rising air.) The wind direction is the direction from which the wind is blowing (for example, a north wind comes from the north and blows toward the south.)

Id: 321 **Wind gusts (Wind gusts)**

Predefined value list

Information whether the wind was gusting or not. Gusts are included when wind speed is 10 knots (20 km/h) or more above the mean. ICAO Annex 3.
A gust is a sudden, brief increase in wind speed that generally lasts less than 20 seconds.
Wind is the air motion relative to the earth's surface.

- Yes (The wind was gusting.) 1
- No (The wind was not gusting.) 2
- Unknown (Whether the wind was gusting is not known.) 99

Topic: Aircraft recordings

Section: Cockpit voice recorder. (Cockpit voice recorder)

This section provides information on protected cockpit voice recorders.

Id: 141 **Cockpit voice recorder hot microphone installed (Hot microphone)**

Predefined value list

Information whether a cockpit voice recorder "hot", i.e. permanently recording, microphone was installed.

- yes (The cockpit voice recorder used a hot microphone.) 1
  A hot microphone is one which facilitates continuous recording irrespective of the selection made by the user.
- No (The cockpit voice recorder did not use a hot microphone.) 2
  A hot microphone is one which facilitates continuous recording irrespective of the selection made by the user.
- Unknown (Whether the cockpit voice recorder used a hot microphone is unknown.) 99
  A hot microphone is one which facilitates continuous recording irrespective of the selection made by the user.

Id: 171 **Cockpit voice recorder location (CVR location)**

Predefined value list

The location in the aircraft where the cockpit voice recorder had been installed.

- Forward fuselage (The cockpit voice recorder was installed in the forward fuselage.) 1
- Mid fuselage (The cockpit voice recorder was installed in the mid-fuselage.) 2
- Rear fuselage (The cockpit voice recorder was installed in the rear fuselage.) 3
- Unknown (The position in which the cockpit voice recorded was installed is unknown.) 99

Id: 241 **Cockpit voice recorder recording medium (CVR Recording medium)**

Predefined value list

The medium on which the cockpit voice recorder recorded.

- Plastic tape (The cockpit voice recorder recording medium was plastic tape.) 1
- Solid state (The cockpit voice recorder recording medium was solid state.) 4
- Metal tape (The cockpit voice recorder recording medium was metal tape.) 2
- Wire (The cockpit voice recorder recording medium was wire.) 3
- Other (The cockpit voice recorder recording medium was other than those listed above.) 98
- Unknown (The type of cockpit voice recorder recording medium was not established.) 99

Id: 80 **Cockpit voice recorder recovery (CVR recovery)**

Predefined value list

To indicate whether the cockpit voice recorder was recovered.
CVR: is a flight recorder used to record the audio environment in the flightdeck of an aircraft for the purpose of investigation of accidents and incidents. This is typically achieved by recording the signals of the microphones and earphones of the pilots headsets and of an area microphone in the roof of the cockpit.

- Recovered (The cockpit voice recorder was recovered.) 1
- Not recovered (The cockpit voice recorder was not recovered.) 2
- Unknown (Whether the cockpit voice recorder was recovered is not known.) 99

Id: 301 **Cockpit voice recorder underwater locator beacon (Underwater locator (CVR))**

Predefined value list

Information regarding the equippage and functioning of a underwater recorder beacon (pinger) attached to the cockpit voice recorder.

- Assisted to locate CVR (The cockpit voice recorder underwater locator operated/assist to locate the recorder.) 1
- Operated/unhelpful CVR (The cockpit voice recorder underwater locator operated but did not assist to locate the recorder.) 2
- Did not operate (The cockpit voice recorder underwater locator did not operate.) 3
- Separated (The cockpit voice recorder underwater locator separated from the recorder.) 5
- Not fitted (No underwater locator was fitted to the cockpit voice recorder.) 4
- Inaudible signal (The cockpit voice recorder underwater locator did not locate an audible signal.) 6
- Other (Circumstances other than those listed above affected the performance of the underwater locator beacon.) 98
- Unknown (The effectiveness of the flight data recorder underwater locator beacon is unknown.) 99

Id: 48 **Cockpit voice recorder, recording quality (CVR Recording quality)**

Predefined value list

- Excellent (The quality of the cockpit voice recorder recording was excellent.) 1

  A CVR recording in which less than five per cent of the record was unintelligible
- Good (The quality of the cockpit voice recorder recording was good.) 2

  A CVR recording in which less than fifteen but not less than five per cent of the record was unintelligible.
- Poor (The quality of the cockpit voice recorder recording was poor.) 3

  A CVR recording in which more than fifteen per cent of the record was unintelligible
- Unreadable (The cockpit voice recorder recording was unintelligible.) 4
- Unknown (The quality of the cockpit voice recorder recording was not established.) 99

Id: 208 **Cockpit voice recorder's number of channels (Number of channels)**

Manual entry

Information on the number of channels which are recorded on the cockpit voice recorder.

Id: 87 **CVR duration of recording (CVR Recording duration)**

Manual entry

The duration of the cockpit voice recorder recording in minutes.

Id: 240 **Reason for CVR data loss (CVR Reason for data loss)**

Predefined value list

In cases where the cockpit voice recording was not recovered in full, provide the most important reason why the recovery was not achieved. Reasons include fire damage, impact damage and pre-occurrence recorder failure.

- None/not applicable (Not applicable. No cockpit voice recorder was installed in the aircraft.) 7
- Bulk eraser activated (The cockpit voice recorder data was lost due to the activation of the bulk eraser.) 8
- Duration insufficient (The cockpit voice recorder data was lost due to the duration of the recording medium being insufficient.) 6
- Fire damage (The cockpit voice recorder data was lost due to fire damage.) 1

- Impact damage (The cockpit voice recorder data was lost due to impact damage.)	3
- CVR failure (pre-occ) (The cockpit voice recorder data was lost due to the recorder failing prior to the occurrence.)	4
- Unreadable data (The cockpit voice recorder data was unreadable.)	5
- Water damage (The cockpit voice recorder data was lost due to water damage.)	2
- Inadequate G-switch trigger (The cockpit voice recorder data was lost due to an inadequate G-switch trigger.)	9
- Other (The cockpit voice recorder data was lost due to a cause not listed above.)	98
- Unknown (The reason the cockpit voice recorder data was lost is unknown.)	99

Section: Flight data recorder. (Flight data recorder)

This section provides information on protected flight data recorders. If the aircraft had been equipped with more than one flight data recorder, provide information on the most important one.

Id: 81 **Flight data recorder data recovery (FDR data recovery)**

Predefined value list

To indicate whether it was practicable to recover the data from the flight data recorder.

- Completely recovered (All of the flight data record could have been recovered.) 1
- Partially recovered (Some, but not all, of the flight data record could have been recovered.) 2
- Not recovered (None of the flight data record could have been recovered.) 3
- Unknown (Whether any of the flight data record could have been recovered is not known.) 99

Id: 82 **Flight data recorder data usefulness (FDR Data usefulness)**

Predefined value list

To indicate whether the data recovered from the flight data recorder were of use in the investigation.

- Very useful (In the judgement of the investigator the flight data record recording was very useful.) 1

  Without the flight data record the causes of the occurrence were unlikely to have been established.
- Useful (In the judgement of the investigator the flight data record recording was useful.) 2

  The flight data record helped to establish the causes of the occurrence but they were likely to have been established without reference to the record.
- Not useful (In the judgement of the investigator the flight data record recording was not useful.) 3

  The flight data record did not help to establish the causes of the occurrence.
- Unknown (The usefulness of the flight data record in helping to establish the causes of the occurrence was not determined.) 99

Id: 169 **Flight data recorder location (FDR location)**

Predefined value list

The location where the flight data recorder was installed in the aircraft.

- Forward fuselage (The flight data recorder was installed in the forward fuselage.) 1
- Mid-fuselage (The flight data recorder was installed in the mid-fuselage.) 2
- Rear fuselage (The flight data recorder was installed in the rear fuselage.) 3
- Unknown (The position in which the flight data recorder was installed is unknown.) 99

Id: 237 **Flight data recorder reason for data loss (Reason for data loss)**

Predefined value list

In cases where all or some of the data was not recovered from the recorder, provide the most important reason for the loss of data.

- Not applicable (No loss of flight data recorder data occurred.) 97
- Fire damage (The reason for the loss of the flight data recorder data was fire damage.) 1
- Impact damage (The reason for the loss of the flight data recorder data was impact damage.) 3
- FDR failure (pre-occ) (The reason for the loss of the flight data recorder data was pre-occurrence recorder failure.) 4
- FDR medium exhausted (The reason for the loss of the flight data recorder data was that the recording medium was exhausted.) 6

- Unreadable data (The reason for the loss of the flight data recorder data was that it was unreadable.) 5
- Water damage (The reason for the loss of the flight data recorder data was water damage.) 2
- Parameters not recorded (The parameters of the reason for the loss of the flight data recorder data were not recorded.) 7
- Period poor quality (The reason for the loss of the flight data recorder data was poor quality of the period.) 8
- Anachronisms (The reasons for the loss of the flight data recorder data were anachronisms.) 9
- Decoding document (The reason for the loss of the flight data recorder data was document decoding.) 10
- Desynchronizations (The reasons for the loss of the flight data recorder data were desynchronizations.) 11
- Other (The reason for the loss of the flight data recorder data was other than one of those listed above.) 98
- Unknown (The reason for the loss of the flight data recorder data is unknown.) 99

Id: 242 Flight data recorder recording medium (FDR Recording medium)

Predefined value list

The medium on which the data recorder recorded.

- Plastic tape (The flight data recorder recording medium was plastic tape.) 3
- Solid state (The flight data recorder recording medium was solid state.) 5
- Metal tape (The flight data recorder recording medium was metal tape.) 4
- Photographic paper (The flight data recorder recording medium was photographic paper.) 6
- Metal foil (The flight data recorder recording medium was metal foil.) 1
- Wire (The flight data recorder recording medium was wire.) 2
- Other (The flight data recorder recording medium was other than one of those types listed above.) 98
- Unknown (The type of flight data recorder recording medium was not established.) 99

Id: 116 Flight data recorder recovery (FDR recovery)

Predefined value list

Information on the recovery of the flight data recorder.

- Recovered (The flight data recorder was recovered.) 1
- Not recovered (The flight data recorder was not recovered.) 2
- Unknown (Whether the flight data recorder was recovered is not known.) 99

Id: 295 Flight data recorder type (FDR Recorder type)

Predefined value list

The type of flight data recorder, whether this was an analogue or a digital recorder.

- Digital FDR (A digital flight data recorder was fitted to the aircraft.) 1
- Analogue (A analogue flight data recorder was fitted to the aircraft.) 2
- Unknown (The type of flight recorder fitted to the aircraft was unknown.) 99

Id: 300 Flight data recorder underwater locator beacon (Underwater locator (FDR))

Predefined value list

Information regarding the equippage and functioning of a underwater recorder beacon (pinger) attached to the flight data recorder.

- Assisted to locate FDR (The flight data recorder underwater locator operated and assisted to locate recorder.) 1
- Operated/unhelpful FDR (The flight data recorder underwater locator operated but did not assist to locate recorder.) 2

- Did not operate (The flight data recorder underwater locator did not operate.)	3
- Separated (The flight data recorder underwater locator separated from the recorder.)	5
- Not fitted (No underwater locator was fitted to the flight data recorder.)	4
- Inaudible signal (The flight data recorder underwater locator did not locate an audible	6
- Other (Circumstances other than those listed above affected the performance of the flight data recorder underwater locator beacon.)	98
- Unknown (The effectiveness of the flight data recorder underwater locator beacon is unknown.)	99

Id: 210 **Flight data recorder's number of parameters (Number of parameters)**

Manual entry

Information on the number of parameters recorded by the flight data recorder.

Topic: Airspace

Section: Airspace. (Airspace)

This section provides information on the type of airspace related to the occurrence. To be used in particular for air traffic management related occurrences.

Id: 13 **Airspace class (Airspace class)**

Predefined value list

Air traffic services airspaces. Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified. ICAO Annex 11.

- A (ATS airspace class A.) 1

  An ATS airspace class A is one in which IFR flights only are permitted, all flights are provided with ATC service and are separated from each other. ICAO Annex 11.

- B (ATS airspace class B.) 2

  An ATS airspace class B is one in which IFR and VFR flights are permitted, all flights are provided with ATC service and are separated from each other. ICAO Annex 11.

- C (ATS airspace class C.) 3

  An ATS airspace class C is one in which IFR and VFR flights are permitted, all flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights. ICAO Annex 11.

- D (ATS airspace class D.) 4

  An ATS airspace class D is one in which IFR and VFR flights are permitted and all flights are provided with air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights. ICAO Annex 11.

- E (ATS airspace class E.) 5

  An ATS airspace class E is one in which IFR and VFR flights are permitted, IFR flights are provided with air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as is practical. Class E shall not be used for control zones. ICAO Annex 11.

- F (ATS airspace class F.) 6

  An ATS airspace class F is one in which IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested. ICAO Annex 11.

- G (ATS airspace class G.) 7

  An ATS airspace class G is one in which IFR and VFR flights are permitted and receive flight information service if requested. ICAO Annex 11.

- Other (The ATS class of airspace was other than one of those listed above.) 98

  There is no ICAO definition for this type of airspace,

- Unknown (The classification of airspace has not been determined.) 99

Id: 14 **Airspace name (Airspace name)**

Manual entry

The name of the airspace.

Id: 15 **Airspace type (Airspace type)**

Predefined value list

The type of the airspace, e.g. a danger area, a prohibited area or a terminal control area.

- ATZ (The type of airspace was an aerodrome traffic zone.) 3

  An aerodrome traffic zone is an airspace of defined dimensions established around as aerodrome for the protection of aerodrome traffic. ICAO Annex 2

- CBA (The type of airspace was a cross border area.) 9

  A cross border area is a temporary segregated area established over international boundaries for specific operational requirements.

- CTA (The type of airspace was a control area.) 2

  A control area is a controlled airspace extending upwards from a specified limit above the earth. ICAO Annex 2.

- CTR (The type of airspace was a control zone.) 4

  A control zone is a controlled airspace extending upwards from the surface of the earth to a specified upper limit. ICAO Annex 2.

- CVSM (The type of airspace was a Conventional Vertical Separation Minimum.) 10

  CVSM : An airspace of defined dimensions within which CVSM (Conventional Vertical Separation Minima) is applied

- Danger area (The type of airspace was a danger area.) 8

  A danger area is an airspace of defined dimensions within which activities dangerous to the flight may exist at specified times. ICAO Annex 15.

- Prohibited area (The type of airspace was a prohibited area.) 7

  A prohibited area is an airspace of defined dimensions, above the land or territorial waters of a State, within which the flight of an aircraft is prohibited. ICAO Annex 11.

- TMA (The type of airspace was a terminal control area.) 1

  A terminal control area is an area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes. ICAO Annex 2.

- RVSM (The type of airspace was a Reduced Vertical Separation Minimum.) 11

  RVSM:An airspace of defined dimensions within which RVSM (Reduced Vertical Separation Minima) is applied

  RVSM: The approval that is issued by the appropriate authority of the State in which the Operator is based or of the State in which the aircraft is registered. To obtain such RVSM approval, Operators shall satisfy the said State : a) That aircraft for which the RVSM Approval is sought have the vertical navigation performance capability required for RVSM operations through compliance with the criteria of the RVSM Minimum Aircraft Systems Performance Specification ; b) That they have instituted procedures in respect of continued airworthiness (maintenance and repair) practices and programmes ; c) that they have instituted flight crew procedures for operations in the RVSM airspace.

- Restricted area (The type of airspace was a restricted area.) 6

  A restricted area is an airspace of defined dimensions, above the land or territorial waters of a State, within which the flight of an aircraft is restricted in accordance with certain specified conditions. ICAO Annex 11

- Transitional area (The type of airspace was a transitional area.) 12

  Transitional area: An area of defined dimensions designed for the purpose of ensuring the re-arrangement of aircraft flights levels when passing from a CVSM area to an RVSM area or vice versa

- TSA (The type of airspace was a temporary segregated area.) 5

  A temporary segregated area is an airspace of defined dimensions, within which activities require the reservation of airspace for the exclusive use of specific users during determined period of time.

- Other (The type of airspace was other than one of the above.) 98
- Unknown (The type of airspace was not determined.) 99

Id: 16 Flight Information Region - name or Upper flight information region - name (FIR/UIR name)

Predefined value list : values from table [V4 CD Location Indicators]

A Flight Information Region is an airspace of defined dimensions within which flight information service and alerting service are provided. ICAO Annex 2
The name of the upper flight information region.
Flight information region: An airspace of defined dimensions within which flight information service and alerting service are provided.
(An 2, An 3, An 4, An 11, PANS-RAC)

Id: 17 **Special activities in airspace (Special activities)**

Predefined value list

Special activities in an airspace include airshows, parachuting, gliding, calibration flight, training flights and military exercises.

- Airshow (The special activity in the airspace was an airshow.) 1
  An airshow is a demonstration involving display aircraft flying in the airspace.
- Calibration flights (The special activity in the airspace was a calibration flight.) 5
  A calibration flight is the operation of an aircraft in the airspace to calibrate the aerodrome and area navigation and approach aids. It is a planned and co-ordinated flights for the purpose of verification of navaids performance that may generate restrictions to other traffic.
- Gliding (The special activity in the airspace was gliding.) 3
  Gliding is flying an aeroplane which is without engine power.
- Military exercise (The special activity in the airspace was a military exercise.) 4
  Planned and co-ordinated, either routine or non routine military activity.
- Parachuting (The special activity in the airspace was parachuting.) 2
  Parachuting is the use of any contrivance, natural or artificial which serves to check a fall through the air, or to support a person in the air.
- Training flights (The special activity in the airspace was a training flight.) 6
  A training flight is the operation of an aircraft in the airspace for the purpose of flight instruction.
- None (None) 100
- Other (The special activity in the airspace was other than any of the above.) 98
- Unknown (The type of special activity in the airspace was not determined.) 99

Topic: ATM recordings

Section: ATM recordings. (ATM recordings)

This section provides information on the type of ATM recording and its usefulness in relation to the air traffic management unit involved in the occurrence.

Id: 337 **ATM recording data usefulness (Data usefulness)**

Predefined value list

Information whether, in the judgement of the investigation, the air traffic management recorded data assisted in the investigation.

- Yes (The air traffic management recording data was useful.) 1
- No (The air traffic management recording data was not useful.) 2
- Unknown (The usefulness of the air traffic management personnel recording data is not known.) 99

Id: 338 **ATM recording types (ATM recording type)**

Predefined value list

The types of air traffic management recording available. N.B. List each type separately.

- RTF - radio telephony (ATM radio telephony was recorded.) 2
  ATM radio telephony was recorded.
- Radar (ATM RADAR data were recorded.) 1
  ATM RADAR data were recorded.
- Datalink (ATM Datalink data were recorded.) 3
- Other (The type of air traffic management recording was other than radar or radio telephony.) 98
- Unknown (The type of air traffic management recording was not determined.) 99

Topic: ATS Unit

Section: ATM ground based safety nets. (ATM ground safety nets)

This section provides information on ground based safety nets available to the air traffic management unit involved in the occurrence.

Id: 366 **Aerodrome-surface movement guidance control system alerting (A-SMGCS alerting)**

Predefined value list

Information regarding the of the advanced surface movement guidance control system.

- Yes (The aerodrome-surface movement guidance control system was functioning.) 1
- No (The aerodrome-surface movement guidance control system was not functioning.) 2
- Unknown (Whether the aerodrome-surface movement guidance control system was functioning is not known.) 99

Id: 367 **Aerodrome-surface movement guidance control system installed (A-SMGCS installed)**

Predefined value list

Information regarding the installation of the advanced surface movement guidance control system.

- Yes (An aerodrome-surface movement guidance control system was installed.) 1
- No (An aerodrome-surface movement guidance control system was not installed.) 2
- Unknown (Whether an aerodrome-surface movement guidance control system was installed is not known.) 99

Id: 368 **Aerodrome-surface movement guidance control system reaction (A-SMGCS reaction)**

Predefined value list

Information regarding the controller's reaction to an alert from the advanced surface movement guidance control system.

- Delayed (The reaction to the aerodrome-surface movement guidance control system alert was delayed.) 2
- Ignored (The aerodrome-surface movement guidance control system alert was ignored.) 3
- Not understood (The aerodrome-surface movement guidance control system alert was not understood.) 5
- Not noticed (The aerodrome-surface movement guidance control system alert was not noticed.) 4
- Other (The reaction to the aerodrome-surface movement guidance control system alert was other than noted above.) 98
- Unknown (The reaction to the aerodrome-surface movement guidance control system was not established.) 99

Id: 378 **ATCO's reaction to other ground based safety net (Reaction-other grd safety)**

Predefined value list

Information on the controller's reaction to an alarm from other ground based safety nets, i.e. systems other than STCA or MSAW.

- Delayed (The reaction to the alarm from the other ground based safety net was delayed.) 2
- Ignored (The alarm from the other ground based safety net was ignored.) 3
- Not understood (The alarm from the other ground based safety net was not understood.) 5
- Not noticed (The alarm from another ground based safety net was not noticed.) 4
- Other (The reaction to the alarm from the other ground based safety net was other than noted above.) 98

- Unknown (The reaction to the alarm from the other ground based safety net is not known.) 99

Id: 363 Information on the alerting of an area proximity warning system (APW alerting)

Predefined value list

Area Proximity Warning, is intended to alert situations where an eligible (SNET) aircraft is, or is predicted to be, flying in a region (SNET) of protected airspace.
Operational Concept
APW informs the controller when an aircraft is predicted to penetrate, or has penetrated, a region (SNET) of airspace, which has been defined as protected. The penetration may be in the lateral, the vertical plane or a combination of the two.
Note.- Regions (SNET)
The functions of regions (SNET) is to provide a means of assigning particular characteristics to volumes of airspace. Relevant characteristics could include matters such as STCA separation criteria, MSAW minimum safe altitude (SNET) or Mode A codes for aircraft permitted to enter a volume of airspace protected by APW. (Ref.- EUROCONTROL-APW)

- Yes (The airborne proximity warning was functioning.) 1
- No (The airborne proximity warning was not functioning.) 2
- Unknown (Whether the airborne proximity warning was functioning is not known.) 99

Id: 365 Information on the controller's reaction to a warning triggered by an area proximity warning system (APW reaction)

Predefined value list

Area Proximity Warning, is intended to alert situations where an eligible (SNET) aircraft is, or is predicted to be, flying in a region (SNET) of protected airspace.
Operational Concept
APW informs the controller when an aircraft is predicted to penetrate, or has penetrated, a region (SNET) of airspace, which has been defined as protected. The penetration may be in the lateral, the vertical plane or a combination of the two.
Note.- Regions (SNET)
The functions of regions (SNET) is to provide a means of assigning particular characteristics to volumes of airspace. Relevant characteristics could include matters such as STCA separation criteria, MSAW minimum safe altitude (SNET) or Mode A codes for aircraft permitted to enter a volume of airspace protected by APW. (Ref.- EUROCONTROL-APW)

- Delayed (The reaction to the airborne proximity warning was delayed.) 2
- Ignored (The airborne proximity warning system's warning was ignored.) 3
- Not understood (The airborne proximity warning was not understood.) 5
- Not noticed (The airborne proximity warning was not noticed.) 4
- Other (Reaction to the airborne proximity warning was other than noted above.) 98
- Unknown (The reaction to the airborne proximity warning is not known.) 99

Id: 364 **Information on the installation of an area proximity warning system (APW installed)**

Predefined value list

Area Proximity Warning, is intended to alert situations where an eligible (SNET) aircraft is, or is predicted to be, flying in a region (SNET) of protected airspace.
Operational Concept
APW informs the controller when an aircraft is predicted to penetrate, or has penetrated, a region (SNET) of airspace, which has been defined as protected. The penetration may be in the lateral, the vertical plane or a combination of the two.
Note.- Regions (SNET)
The functions of regions (SNET) is to provide a means of assigning particular characteristics to volumes of airspace. Relevant characteristics could include matters such as STCA separation criteria, MSAW minimum safe altitude (SNET) or Mode A codes for aircraft permitted to enter a volume of airspace protected by APW. (Ref.- EUROCONTROL-APW)

- Yes (Airborne proximity warning was installed.) 1
- No (Airborne proximity warning was not installed.) 2
- Unknown (Whether airborne proximity warning was installed is unknown.) 99

Id: 369 **Minimum safe altitude warning system alerting (MSAW alerting)**

Predefined value list

Information whether the minimum safe altitude warning system was functioning. MSAW:The generation of minimum safe altitude warnings is a function of an ATC radar data processing system. The objective of the MSAW function is to assist in the prevention of controlled flight into terrain accidents by generating, in a timely manner, a warning of the possible infringement of a minimum safe altitude.

- Yes (The minimum safe altitude warning system was functioning.) 1
- No (The minimum safe altitude warning system was not functioning.) 2
- Unknown (Whether the minimum safe altitude warning system was functioning is not known.) 99

Id: 370 **Minimum safe altitude warning system installed (MSAW installed)**

Predefined value list

Information on whether the minimum safe altitude warning system was installed. MSAW:The generation of minimum safe altitude warnings is a function of an ATC radar data processing system. The objective of the MSAW function is to assist in the prevention of controlled flight into terrain accidents by generating, in a timely manner, a warning of the possible infringement of a minimum safe altitude.

- Yes (A minimum safe altitude warning system was installed.) 1
- No (No minimum safe altitude warning system was not installed.) 2
- Unknown (Whether a minimum safe altitude warning system was installed is unknown.) 99

Id: 371 **Minimum safe altitude warning system reaction (MSAW reaction)**

Predefined value list

Information regarding the controller's reaction to a warning from the minimum safe altitude warning system.

MSAW:The generation of minimum safe altitude warnings is a function of an ATC radar data processing system. The objective of the MSAW function is to assist in the prevention of controlled flight into terrain accidents by generating, in a timely manner, a warning of the possible infringement of a minimum safe altitude.

- Delayed (The controller's reaction to the minimum safe altitude warning system was delayed.) 2

- Ignored (The controller ignored the minimum safe altitude warning system alert.) 3
- Not understood (The controller did not understand the minimum safe altitude warning system alert.) 5
- Not noticed (The controller did not notice the minimum safe altitude warning system alert.) 4
- Other (The controller's reaction to the minimum safe altitude warning system was other than one of those noted above.) 98
- Unknown (The controller's reaction to the minimum safe altitude warning system was not established.) 99

Id: 376 Other ground based safety net alerting (Other grd safety net wkg)

Predefined value list

Information on the functioning of other ground based safety nets, i.e. systems other than STCA or MSAW.

- Yes (Another ground based safety net was functioning.) 1
- No (No other ground based safety net was functioning.) 2
- Unknown (Whether another ground based safety net was functioning is not known.) 99

Id: 377 Other ground based safety net installed (Other ground safety net)

Predefined value list

Information on the installation of other ground based safety nets, i.e. systems other than STCA or MSAW.

- Yes (Another ground based safety net was installed.) 1
- No (No other ground based safety net was installed.) 2
- Unknown (Whether another ground based safety net was installed is not known.) 99

Id: 379 Short term conflict alert alerting (STCA alerting)

Predefined value list

Information on the functioning of the short term conflict alert system.
STCA: The generation of short term conflict alerts is a function of an ATC radar data processing system. The objective of the STCA function is to assist the controller in maintaining separation between controlled flights by generating, in a timely manner, an alert of a potential infringement of separation minima.

- Yes (The short term conflict alert was functioning.) 1
- No (The short term conflict alert was not functioning.) 2
- Unknown (Whether the short term conflict alert was functioning is not known.) 99

Id: 380 Short term conflict alert installed (STCA installed)

Predefined value list

Information on the installation of a short term conflict alert system.

STCA: The generation of short term conflict alerts is a function of an ATC radar data processing system. The objective of the STCA function is to assist the controller in maintaining separation between controlled flights by generating, in a timely manner, an alert of a potential infringement of separation minima.

- Yes (A short term conflict alert was installed.) 1
- No (No short term conflict alert was installed.) 2
- Unknown (Whether a short term conflict alert was installed is not known.) 99

Id: 381 **Short term conflict alert warning reaction (STCA reaction)**

Predefined value list

Information regarding the controller's reaction to a short term conflict alert warning. STCA:The generation of short term conflict alerts is a function of an ATC radar data processing system. The objective of the STCA function is to assist the controller in maintaining separation between controlled flights by generating, in a timely manner, an alert of a potential infringement of separation minima.

- Delayed (The controller's reaction to the short term conflict alert was delayed.)	2
- Ignored (The controller ignored the short term conflict alert.)	3
- Not understood (The controller did not understand the short term conflict alert.)	5
- Not noticed (The controller did not notice the short term conflict alert warning.)	4
- Other (The controller's reaction to the short term conflict alert was other than one of those noted above.)	98
- Unknown (The controller's reaction to the short term conflict alert was not established.)	99

Section: ATS unit identification and staffing. (ATS unit identification)

This section provides information on the identification and staffing of the air traffic services unit involved in the occurrence.

Id: 372 **ATS unit's name (ATS unit name)**
Manual entry
The name of this air traffic services unit.

Id: 373 **Number of sectors defined for this ATS unit (Nr. sectors defined)**
Manual entry
Number of sectors defined for this ATS unit.

Id: 374 **Number of sectors fuly staffed (Nr. sectors manned)**
Manual entry
Number of sectors fuly staffed in this unit.

Id: 375 **Number of sectors opened in ATS unit (Nr. sectors opened)**
Manual entry
The number of sectors opened in this air traffic services unit.

Topic: CFIT

Section: Altimeters. (Altimeters)

This section provides information on the type of altimeters used by the pilot-in-command and co-pilot. This information is recorded for controlled flight into terrain [CFIT] and near CFIT type accidents/incidents only.

Id: 71 **Co-pilot altimeter type (Co-pilot altim. type)**

Predefined value list

The type of altimeter installed for the co-pilot: e.g. counter-drum-pointer, drum-pointer or a three pointer altimeter.

- Counter-drum pointer (The co-pilot's altimeter was of the counter-drum pointer type.) 2

  On this type of altimeter the altitude is indicated in multiples of 100 feet by three counters, one for 10 000 feet, one for 1 000 ft and one for 100 feet. In addition, for details of the altitude above or below the particular 1 000-foot point indicated by the counter, a needle points to a round scale. The 100-foot steps are marked zero through nine.

- Drum pointer (The co-pilot's altimeter was of the drum pointer type.) 1

  On this type of altimeter, the altitude is presented on 1 000-foot steps on a drum. For details of the altitude above or below the particular 1 000-foot point, a needle points to a round scale. The 100-foot steps are marked one through nine and each step is marked by a small line.

- Three pointer (The co-pilot's altimeter was of the three pointer type.) 3

  On this type of altimeter, the altitude is indicated by three needles, one indicating multiples of 10 000 feet, one indicating multiples of 1 000 feet and one indicating increments of 100 feet. All are mounted on the same center and use the round scale marked zero to nine. The difference between the 10 000, 1000 and 100 feet needle is their respective shape and size.

- Other (The co-pilot's altimeter was other than one of the types listed above.) 98
- Unknown (The type of the co-pilot's altimeter was not established.) 99

Id: 224 **Pilot-in-command altimeter type (Pilot altimeter type)**

Predefined value list

The type of altimeter available to the pilot-in-command, e.g. counter, drum pointer, drum pointer or 3 pointer altimeter.

- Counter-drum pointer (The pilot's altimeter was of the counter-drum pointer type.) 2

  On this type of altimeter the altitude is indicated in multiples of 100 feet by three counters, one for 10 000 ft, one for 1 000 feet and one for 100 feet. In addition, for details of the altitude above or below the particular 1 000-foot point indicated by the counter, a needle points to a round scale. The 100-foot steps are marked zero through nine.

- Drum pointer (The pilot's altimeter was of the drum pointer type.) 1

  On this type of altimeter, the altitude is presented on 1 000-foot steps on a drum. For details of the altitude above or below the particular 1 000-foot point, a needle points to a round scale. The 100-foot steps are marked one through nine and each step is marked by a small line.

- Three pointer (The pilot's altimeter was of the three pointer type.) 3

  On this type of altimeter, the altitude is indicated by three needles, one indicating multiples of 10 000 feet, one indicating multiples of 1 000 feet and one indicating increments of 100 feet. All are mounted on the same center and use the round scale marked zero to nine. The difference between the 10 000, 1 000 and 100 feet needle is their respective shape and size.

- Other (The pilot's altimeter was other than one of the types listed above.) 98
- Unknown (The type of pilot's altimeter is unknown.) 99

Id: 235 **Radio altimeter provided (Radio altim. provided)**

Predefined value list

Information indicating whether or not a radio altimeter provided in this aircraft.

- Yes (A radio altimeter was provided.) 1
  A radio altimeter is the system which measures the aircraft's height [not altitude] above the surface below.
- No (No radio altimeter was provided.) 2
  A radio altimeter is the system which measures the aircraft's height [not altitude] above the surface below.
- Unknown (Whether a radio altimeter was provided is not known.) 99
  A radio altimeter is the system which measures the aircraft's height [not altitude] above the surface below.

Section: Call outs. (Call outs)

This section provides information on call outs made. This information is recorded for controlled flight into terrain [CFIT] and near CFIT type accidents/incidents only.

Id: 50 **Auto altitude call provided (Auto altitude call)**

Predefined value list

Information whether the aircraft was equipped with an automatic altitude callout and whether this feature was working.
Altitude:The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

- Yes (Automatic altitude call out was provided and working.) 1
- No (Automatic altitude call out was not installed or was not working.) 2
- Unknown (Not known if automatic call out provided and working.) 99

Id: 49 **Auto bank call provided (Auto bank call)**

Predefined value list

Information whether the aircraft was equipped with an automatic bank callout and whether this feature was working.

- Yes (An automatic bank call out was installed and working.) 1
- No (Automatic bank call out was not installed or was not working.) 2
- Unknown (Whether an automatic bank call was installed and working was not established.) 99

Id: 77 **Crew call-out done (Crew call-out done)**

Predefined value list

To indicate whether the crew did call out the aircraft's height or altitude.

- Yes (A crew call-out of the altitude was made.) 1
- No (A crew call-out of the altitude was not made.) 2
- Unknown (Whether a crew call-out of the altitude was made was not known.) 99

Id: 179 **Minima call-out made (Minima call-out made)**

Predefined value list

Information whether a callout was made when the approach minima were reached.

Minimum descent altitude (MDA) or minimum descent height (MDH). A specified altitude or height in a non-precision approach or circling approach below which descent must not be made without the required visual reference.

- Yes (A "minima" call-out was made.) 1
- No (No "minima" call out was made.) 2
- Unknown (Whether a "minima" call out was made is unknown.) 99

Section: Charts. (Charts)

This section provides information on the charts used by the pilot-in-command and co-pilot. This information is recorded for controlled flight into terrain [CFIT] and near CFIT type accidents/incidents only.

Id: 223 **Charts different from pilot-in-command to co-pilot (Pilots ch. different)**

Predefined value list

Information indicating whether the charts available to the pilot-in-command differed from those charts available to the co-pilot.

- Yes (The pilot's charts differed from the co-pilot's charts.) 1
- No (The pilot's charts did not differ from the co-pilot's charts.) 2
- Unknown (Whether the pilot's charts differed from the co-pilot's charts is unknown.) 99

Id: 73 **Co-pilot charts available (Co-pilot ch. available)**

Predefined value list

To indicate whether charts were available to the co-pilot or not.

- Yes (The co-pilot was provided with the correct charts.) 1
- No (The co-pilot was not provided with the correct charts.) 2
- Unknown (Whether the co-pilot was provided with the correct charts was not established.) 99

Id: 74 **Co-pilot charts minimum altitude contours (Co-pilot ch. alt. cont.)**

Predefined value list

To indicate whether the charts available to the co-pilot provided minimum altitude contours.
Contour line. A line on a map or chart connecting points of equal elevation.

- Yes (Minimum altitude contours were depicted on the co-pilot's charts.) 1
- No (Minimum altitude contours were not depicted on the co-pilot's charts.) 2
- Unknown (Whether minimum altitude contours were depicted on the co-pilot's charts was not established.) 99

Id: 75 **Co-pilot charts provider name (Co-pilot ch. provider)**

Manual entry

The name of the provider of the charts available to the co-pilot.

Id: 76 **Co-pilot charts terrain contours (Co-pilot ch. terr. cont.)**

Predefined value list

To indicate whether the charts available to the co-pilot provided terrain contours.
Contour line. A line on a map or chart connecting points of equal elevation.

- Yes (Terrain contours were depicted on the co-pilot's charts.) 1
- No (Terrain contours were not depicted on the co-pilot's charts.) 2
- Unknown (Whether terrain contours were depicted on the co-pilot's charts was not determined.) 99

Id: 221 **Pilot charts provider name (Pilot ch. provider)**

Manual entry

Information on the name of the provider of the charts of the pilot-in-command. Entered in free text.

Id: 219 **Pilot-in-command charts available (Pilot ch. available)**

Predefined value list

Information whether charts were available to the pilot-in-command.

- Yes (Charts were available for the pilot.) 1
- No (Charts were not available for the pilot.) 2
- Unknown (The type of charts which were available for the pilot is unknown.) 99

Id: 220 **Pilot-in-command charts minimum altitude contours (Pilot ch. minimum alt.)**

Predefined value list

Information whether the charts of the pilot-in-command provided minimum altitude contours.

- Yes (The pilot's charts depicted minimum altitude contours.) 1
- No (The pilot's charts did not depict minimum altitude contours.) 2
- Unknown (Whether the pilot's charts depicted minimum altitude contours is unknown.) 99

Id: 222 **Pilot-in-command charts terrain contours (Pilot ch. terrain cont.)**

Predefined value list

Information whether the charts available to the pilot-in-command provided terrain contours.
Contour line. A line on a map or chart connecting points of equal elevation.

- Yes (The pilot's charts did depict terrain contours.) 1
- No (The pilot's charts did not depict terrain contours.) 2
- Unknown (Whether the pilot's charts depicted terrain contours is unknown.) 99

Section: GPWS equipment (GPWS equipment)

GPWS equipment

Id: 130 **Ground Proximity Warning System installed (GPWS Installed)**

Predefined value list

Information whether a ground proximity warning system was installed in the aircraft.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Yes (A ground proximity warning system was installed.) 1

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- No (A ground proximity warning system was not installed.) 2

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- Unknown (Whether a ground proximity warning system was installed is unknown.) 99

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

Id: 132 **Ground Proximity Warning System required (GPWS required)**

Predefined value list

Information whether this aircraft was required to have a ground proximity warning system installed or not.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Yes (A ground proximity warning system was required to be installed.) 1

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- No (A ground proximity warning system was not required to be installed.) 2

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- Unknown (Whether a ground proximity warning system was required to be installed is unknown.) 99

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

Id: 133 **Type/mark of Ground Proximity Warning System (GPWS type/mark)**

Manual entry

Information on the type/mark of the ground proximity warning system installed on the aircraft.

A ground proximity warning system is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

Section: Ground proximity warning/ Terrain awareness and warning sys

This section provides information on the type of ground proximity warning system [GPWS] equipment installed/ operated in the aircraft or any "Terrain awareness and warning system" (TAWS) that was installed.TAWS: Terrain awareness and warning system. A system capable of preventing the crew of an airplane from imminent collision with the ground by providing a "forward looking terrain avoidance function". This information is recorded for controlled flight into terrain [CFIT] and near CFIT type accidents/incidents only.

Id: 414 Crew's reaction to GPWS warning (Crew reaction GPWS)

Predefined value list

The description of the reaction of the crew to a warning originating from the ground proximity warning system, e.g. delayed or ignored.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Immediate (The crew's reaction to the ground proximity warning system's warning was immediate.)	1
- Delayed (The crew's reaction to the ground proximity warning system's warning was delayed.)	2
- Ignored (The crew ignored the ground proximity warning system's warning.)	3
- Not understood (The crew did not understand the ground proximity warning system's warning.)	5
- Not noticed (The crew did not notice the ground proximity warning system's warning.)	4
- Other (The crew's reaction to the ground proximity warning system's warning was other than one of those noted above.)	98
- Unknown (The crew's reaction to the ground proximity warning system's warning is not known.)	99

Id: 416 GPWS warning time to react (GPWS time to react)

Manual entry

The number of seconds between the time the warning of the ground proximity warning system was triggered and the reaction of the crew.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

Id: 417 GPWS warning type (GPWS warning type)

Predefined value list

The type of warning that originated from the ground proximity warning system. Warnings are provided by the GPWS in the following circumstances: 1) excessive descent rate; 2) excessive terrain closure rate; 3) excessive altitude loss after take-off or go-around; 4) unsafe terrain clearance while not in landing configuration; a) gear not locked down; b) flaps not in a landing position; and 5) excessive descent below the instrument glide path. ICAO Annex 6.

- Bank angle (The ground proximity warning system's warning was, "Bank angle".) 8
- Don't sink (The ground proximity warning system's warning was "Don't sink") 1
- Glide slope (The ground proximity warning system's warning was, "Glide slope".) 7
- Pull-up (The ground proximity warning system's warning was, "Pull up".) 9
- Sink rate (The ground proximity warning system's warning was, "Sink rate") 2
- Terrain (The ground proximity warning system's warning was, "Terrain".) 3
- Too low flaps (The ground proximity warning system's warning was, "Too low, flaps".) 5
- Too low gear (The ground proximity warning system's warning was, "Too low, gear".) 4
- Too low terrain (The ground proximity warning system's warning was, "Too low, terrain".) 6
- Other (The ground proximity warning system's warning was other than one of those listed above.) 98
- Unknown (The type of warning given by the ground proximity warning system is not known.) 99

Id: 131 Ground Proximity Warning System operated (GPWS operated)

Predefined value list

Information whether a ground proximity warning system installed operated or not.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Yes (The ground proximity warning system operated.) 1

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- No (The ground proximity warning system did not operate.) 2

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- Unknown (Whether the ground proximity warning system operated is unknown.) 99

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

Id: 134 **Ground Proximity Warning System warning given (GPWS warning given)**

Predefined value list

Information on the type of warning that was given by the ground proximity warning system on this aircraft.

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Yes (The ground proximity warning system gave a warning.) 1

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- No (The ground proximity warning system gave no warning.) 2

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

- Unknown (Whether the ground proximity warning system gave a warning is unknown.) 99

  A GPWS is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annnex 6.

Id: 415 **Information whether the crew correctly identified the warning originating from the ground proximity warning system (GPWS warning identified)**

Predefined value list

A GPWS [ground proximity warning system] is a system on board the aircraft that provided warnings of: excessive descent rate; excessive terrain closure rate; excessive altitude loss after take-off or go-around; unsafe terrain clearance while not in landing configuration, i.e. gear not locked down or flaps not in a landing position; and excessive descent below the instrument glide path. ICAO Annex 6.

- Yes (The pilots identified the ground proximity warning system's warning correctly.) 1
- No (The pilots did not identify the ground proximity warning system's warning correctly.) 2
- Unknown (Whether the pilots identified the ground proximity warning system's warning correctly is not known.) 99

Topic: Ditch

Section: Floatation devices. (Floatation devices)

This section provides information on the availability and effectiveness of floatation devices.

Id: 412 **Personal floatation device effectiveness (Floatation effectiveness)**

Predefined value list

Use for evacuations on water only. Information on the effectiveness of the personal floatation devices.

- Very effective (The floatation device was very effective.) 1

  The floatation device would have continued to support the person in the correct position until the maximum survival time had elapsed.

- Adequate (The floatation device was adequate.) 2

  Although the floatation device supported the person in the correct position it may not have continued to provide this support until the maximum survival time had elapsed.

- Ineffective (The floatation device was ineffective.) 3

  The floatation device did not support the person in the correct position.

- Unknown (The effectiveness of the floatation device is not known.) 99

Id: 413 **The type of personal floatation device used (Type devices used)**

Predefined value list

The type of personal floatation device used. e.g. seat cushions, slide raft, dinghy/life raft or lifejackets.

- None (No flotation device was used.) 97
- Dinghy/life-raft (The type of flotation device used was a dinghy/life-raft.) 3
- Lifejacket (The type of flotation device used was a lifejacket.) 2
- Seat cushion (The type of flotation device used was a seat cushion.) 1
- Slide-raft (The type of flotation device used was a slide-raft.) 4
- Other (The type of flotation device used was other than those listed above.) 98
- Unknown (The type of flotation device used is not known.) 99

Section: General ditching information. (Aircraft ditching info)

This section provides information on aircraft break-up upon ditching and related floatation time of the aircraft after ditching.

Id: 31 **Break-up at ditching (Break-up at ditching)**

Predefined value list

This provides a measure for the loss of integrity sustained by the aircraft when impacting the water, i.e. complete, minor, none, substantial unknown.

- Complete (The aircraft was destroyed by the impact with the water.) 3
- Partial (The aircraft was partialy damaged on impact with the water.) 2

  The aircraft was partialy damaged on impact with the water.
- Remained largely intact (The aircraft remained largely intact on impact with the water.) 1

  The aircraft remained largely intact on impact with the water.
- None (The aircraft was undamaged by the impact with the water.) 97
- Unknown (The aircraft damage that resulted from the impact forces was not determined.) 99

Id: 122 **Floatation time aircraft (Floatation time)**

Predefined value list

This section calls for an entry indicating if the aircraft floated for sufficient time to allow the occupants to escape, i.e. did not sink, sank immediately, sank during evacuation or sank after evacuation.

- Sank immediately (The aircraft sank immediately after ditching.) 1
- Sank during evacuation (The aircraft sank during evacuation.) 2

  N.B. Evacuation means the leaving of the aircraft through approved exits and using approved means following the aircraft evacuation procedure. Escape from the wreckage through breaks in the fuselage is not what is meant by "evacuation".
- Sank after evacuation (The aircraft sank after evacuation.) 3

  N.B. Evacuation means the leaving of the aircraft through approved exits and using approved means following the aircraft evacuation procedure. Escape from the wreckage through breaks in the fuselage is not what is meant by "evacuation".
- Did not sink (The aircraft did not sink.) 4
- Unknown (The length of time during which the aircraft floated was not established.) 99

Section: Helicopter ditching. (Helicopter ditching info)

This section provides information specific to the involuntary landing of helicopters on water.

Id: 37 **Helicopter anti-exposure/immersion suits available (Imm. suits available)**

Predefined value list

To determine if helicopter anti-exposure/immersion suits were available to the occupants of the aircraft.

- Yes (Helicopter anti-exposure/immersion suits were available to the aircraft occupants.) 1
- No (Helicopter anti-exposure/immersion suits were not available to the aircraft occupants.) 2
- Unknown (It is not known if a helicopter anti-exposure/immersion suit was available.) 99

Id: 38 **Helicopter anti-exposure/immersion suits worn (Imm. suits worn)**

Predefined value list

To determine if helicopter anti-exposure/immersion suits were worn by the occupants of the aircraft.

- Yes (Helicopter anti-exposure/immersion suits were worn by the aircraft occupants.) 1
- No (Helicopter anti-exposure/immersion suits were not worn by the aircraft occupants.) 2
- Unknown (Whether a helicopter anti-exposure/immersion suit was worn or not was not determined.) 99

Id: 94 **Helicopter emergency floatation equipment effectiveness (Float. effectiveness)**

Predefined value list

Information indicating whether the helicopter emergency floatation system was effective.

- Remained upright (The helicopter emergency flotation system allowed the helcopter to float upright) 1
- Helicopter overturned (The helicopter emergency flotation system prevented the helicopter from sinking, but the helicopter overturned (capsized)) 2

  .
- Helicopter sank (The helicopter emergency flotation system did not prevent the helicopter from sinking) 3
- Unknown (The effectiveness of the helicopter emergency flotation system is unknown.) 99

Id: 95 **Helicopter emergency floatation system inflation (Float. inflation)**

Predefined value list

Information whether the helicopter emergency float inflated, inflated then deflated or did not inflate.

- Deflated (The helicopter emergency flotation system did inflate but deflated subsequently.) 3
- Inflated (The helicopter emergency flotation system did inflate.) 2
- Not inflated (The helicopter emergency flotation system did not inflate.) 1
- Unknown (Whether the helicopter emergency flotation system did inflate is unknown.) 99

Id: 96 **Helicopter emergency floatation system installed (Float. installed)**

Predefined value list

Information whether an helicopter emergency floatation system was installed.

- Installed (An helicopter emergency flotation system was installed.) 1
- Not installed (An helicopter emergency flotation system was not installed.) 2
- Unknown (Whether a helicopter emergency flotation system was installed is unknown.) 99

Topic: Events

Section: Sequence of events. (Events)

The section provides the sequence of events in chronological order. Each step must have an event type and a phase of operation.

Id: 386 **Descriptive factor modifier (Df modifiers)**

Predefined value list : values from table [V4 CD Modifiers]

Modifiers provide information on the nature of the involvement of the subject to which they relate.

Id: 385 **Descriptive factor subject (Descr factor subject)**

Predefined value list : values from table [V4 CD Descriptive Factors]

The subject of a descriptive factor. Descriptive factors are a combination of a subject, e.g.. aircraft/operations, air traffic management, aerodrome, meteorological or terrain, and at least one modifiers. The subjects provide information on the subject area described and the modifiers indicate the nature of the involvement of the subject.

Id: 391 **Event phase (Phase)**

Predefined value list : values from table [V4 CD Event Phases]

The phase of flight that relates to the event.

Id: 390 **Event type (Event Type)**

Predefined value list : values from table [V4 CD Events]

The type of event, i.e. aircraft/system/component, consequential, air navigation services, aerodrome and ground aids, CAA, other or unknown.

Id: 393 **Explanatory factor modifier (Expl factor modifier)**

Predefined value list : values from table [V4 CD Modifiers]

Modifiers provide information on the nature of the involvement of the subject to which they relate.

Id: 392 **Explanatory factor subject (Expl factor subject)**

Predefined value list : values from table [V4 CD Explanatory Factors]

The area of concern or subject described in the explanatory factor.

Id: 394 **The person or organization to which the explanatory factor relates (Organization/person)**

Predefined value list : values from table [V4 CD Organisations Persons]

Topic: Failures

Section: Information on engines to be completed in case of engine failu

The section provides information on the engine manufacturer/model as well as the number of hours since overhaul [TSO] and the total number of cycles of the engine. In the case of an engine which is assembled from modules give the TSO and cycles of the module which failed.

Id: 389 **Failed engine time since overhaul (Time since overhaul)**
Manual entry
The number of hours since overhaul of the failed engine.

Id: 388 **Number of engine cycles before failure (Engine cycles)**
Manual entry
The number of cycles (total) of the failed engine.

Id: 387 **The model of the engine (Engine model)**
Predefined value list : values from table [V4 CD Engines]
The model of the engine.

Section: Part failures. (Part failures)

This section provides information on the part number and the name of the component that failed. It excludes engines and propellers which are covered in their own sections.

Id: 485 **The name of the part that failed (Part name)**
Manual entry

Id: 486 **The part number of the failed component (Part number)**
Manual entry

Section: Propeller information (to be completed in case of propeller failu

This section provides information on manufacturer and model/series of the failed propeller.

Id: 492 **The manufacturer of the propeller (Make of propeller)**
Predefined value list : values from table [V4 CD Propellers]

Id: 493 **The model of the propeller (Propeller model)**
Manual entry

Topic: Fire

Section: Crew smoke protection devices. (Crew smoke protection)

This section provides information on availability and use of crew smoke protection devices.

Id: 267 **Smoke goggles usage (Goggles usage)**

Predefined value list

Information whether smoke goggles were used by the flight crew.

- Used (Smoke goggles were used by the flight crew.) 1
- Not used (Smoke goggles were not used by the flight crew.) 2
- Not provided (Smoke goggles were not provided for the flight crew.) 3
- Unknown (Whether smoke goggles were used by the flight crew is unknown.) 99

Id: 268 **Smoke hoods usage (Smoke hoods usage)**

Predefined value list

Information whether smoke hoods were used by the flight crew.

- Used (Smoke hoods were used by the flight crew.) 1
- Not used (Smoke hoods were not used by the flight crew.) 2
- Not provided (Smoke hoods were not provided for the flight crew.) 3
- Unknown (Whether the smoke hoods were used by the flight crew is unknown.) 99

Id: 269 **Smoke masks usage (Smoke masks usage)**

Predefined value list

Information whether smoke masks were used by the flight crew.

- Used (Smoke masks were used by the flight crew.) 1
- Not used (Smoke masks were not used by the flight crew.) 2
- Not provided (Smoke masks were not provided for the flight crew.) 3
- Unknown (Whether smoke masks were used by the flight crew is unknown.) 99

Section: Dangerous goods. (Dangerous goods)

This section provides information on the involvement of dangerous goods in the occurrence.

Id: 129 **Dangerous goods inv (Dangereous goods involved)**

Predefined value list

Information whether dangerous goods were involved in the occurrence.
Dangerous goods. Articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Intructions. ICAO Annex 18, Annex 6 part I.
Note:Dangerous goods are classified in Annex 18, Chapter 3.

- Yes (A dangerous good was involved in the occurrence.) 1
- No (A dangerous good was not involved in the occurrence.) 2
- Unknown (The type of dangerous good involved in the occurrence is unknown.) 99

Section: Fire suppression system aircraft. (Fire suppression system airc

This section provides information on the type and effectiveness of fire suppression systems in the aircraft as well as the type of extinguishant used.

Id: 328 Effectiveness of the aircraft fire suppression system (Fire suppr sys -Effective)

Predefined value list

- Yes (The aircraft fire suppression system was effective.) 1
  The fire suppression enabled all of the occupants to leave the aircraft without any injury.
- No (The aircraft fire suppression system was not effective.) 2
  Some of the occupants sustained injuries after the aircraft came to rest.
- Unknown (The aircraft fire suppression system effectiveness was not established.) 99

Id: 330 Type of aircraft fire suppression extinguishing agent (Type of extinguishing agent)

Predefined value list

Information on the type of extinguishing agent used in the fire suppression system installed on the aircraft.

- CO2 (The type of extinguishing agent in the particular aircraft fire suppression system was CO2.) 2
- Halon (The type of extinguishing agent in the particular aircraft fire suppression system was halon.) 1
- Water (The type of extinguishing agent in the particular aircraft fire suppression system was water.) 3
- Other (The type of extinguishing agent in the particular aircraft fire suppression system was other than one of the types listed above.) 98
- Unknown (The type of extinguishing agent in the particular aircraft fire suppression system was not established.) 99

Id: 329 Type of aircraft fire suppression system (Type of fire suppression)

Predefined value list

Information on the types of fire suppression system in the aircraft e.g. APU, power plant, cargo/baggage compartment. N.B. Enter details for each system available in the aircraft.

- APU (The aircraft fire suppression system installed was for the auxiliary power unit.) 5
- Bag/cargo compartment (An aircraft fire suppression system was installed for the baggage/cargo compartment.) 4
- Galley (An aircraft fire suppression system was installed for the galley.) 3
- Portable (A portable fire suppression system was available in the aircraft.) 2
- Power plant (An aircraft fire suppression system was installed for the power plants.) 1
- Toilet (An aircraft fire suppression system was installed for the toilet.) 6
- Unknown (The types of aircraft fire suppression systems installed were not established.) 99
- Not Installed (An aircraft fire suppression system was not installed.) 97

Section: Fire warning system aircraft. (Fire warning system aircraft)

This section provides information on the availability and operation of the aircraft fire warning system.

Id: 285 **Fire warning system aircraft availability (Fire warn. sys-availability)**

Predefined value list

Information whether there was a fire warning system available in this aircraft.

- Installed (A fire warning system was installed in the aircraft.) 1
- Not installed (A fire warning system was not installed in the aircraft.) 2
- Unknown (Whether a fire warning system was installed in the aircraft is unknown.) 99

Id: 286 **Fire warning system aircraft operation (Fire warn. sys-operation)**

Predefined value list

Information regarding the operation of the fire warning system available in this aircraft.

- Functioned properly (The fire warning system functioned properly.) 1
- Failed to operate (The fire warning system failed to operate.) 2
- Not Installed (No fire warning system was installed) 3
- Unknown (Whether the fire warning system was operating properly is not known.) 99

Section: Information related to the conditions under which a fire started.

This section provides information on the phase of flight when the fire started as well as the initial location of the fire and its fuel source.

Id: 124 **Fire fuel source (Fuel source)**

Predefined value list

The source of the fuel that fed the fire.

- Powerplant fuel (The fire was fed by powerplant fuel.)	1
- Other aircraft fluids (The fire was fed by aircraft fluids other than power plant fuel, e.g. hydraulic fluid.)	2
- Cargo (The fire was fed by the cargo.)	5
- Oven contents (The fire was fed by the oven contents)	3
- Waste receptacle (The fire was fed by the waste receptacle contents.)	4
- Wheels/tyres (The fire was fed by the wheels/tyres.)	6
- Other (The source of fuel for the fire was other than one of the above.)	98
- Unknown (The source of fuel for the fire was unknown.)	99

Id: 143 **Ignition source of the fire (Ignition source of fire)**

Predefined value list

The ignition source of the fire.

- Aircraft occupant (The fire was ignited by an aircraft occupant.)	11
- Brakes (The fire was ignited by the brakes.)	9
- Cargo (The fire was ignited by an item in the cargo.)	5
- Electrical (The fire was ignited by an electrical source.)	3
- Exhaust (The fire was ignited by the exhaust.)	1
- Explosives (The fire was ignited by explosives.)	6
- Hot surfaces (The fire was ignited by hot surfaces.)	4
- Lightning (The fire was ignited by lightning.)	8
- Short circuit (The fire was ignited by a short circuit.)	7
- Sparks (The fire was ignited by sparks.)	2
- Static electricity (The fire was ignited by static electricity.)	10
- Other (The fire was ignited by an agency other than one of those listed above.)	98
- Unknown (The source of the ignition for the fire is unknown.)	99

Id: 144 **Initial location of the fire (Initial location of fire)**

Predefined value list

The initial location of the fire.

- APU (The fire was located in the auxiliary power unit initially.)	2
- Avionics (The fire was located in the aircraft avionics initially.)	9
- Bag/cargo compartment (The fire was located in the baggage/cargo compartment initially.)	4
- Cockpit (The fire was located in the cockpit initially.)	6
- Electrical system (The fire was located in the electrical system initially.)	7
- Galley (The fire was located in a galley initially.)	10
- Heat/air conditioning (The fire was located in the heater/air conditioning system initially.)	8
- Passenger cabin (The fire was located in the passenger cabin initially.)	3
- Powerplant (The fire was located in a powerplant initially.)	1
- Toilet (The fire was located in a toilet initially.)	5
- Wheel/tyre (The fire was located in a wheel/tyre initially.)	11

- Other (The fire was located, initially, in an area other than one of the above.) 98
- Unknown (The initial location of the fire is unknown.) 99

Id: 280 The phase of flight during which the fire started (Phase fire started)

Predefined value list

The phase of flight during which the fire on board this aircraft started.

- After impact (The fire started after impact.) 5
- At impact (The fire started at impact.) 4
- During fuelling (The fire started during the fuelling phase.) 1
- During ground ops (The fire started during ground operations other than fuelling.) 2
- In-flight (The fire started in-flight.) 3
- Other (The fire started in a phase other than those listed above.) 98
- Unknown (The phase in which the fire started is unknown.) 99

Section: Rescue fire services aerodrome. (Aerodrome Rescue Fire Ser

This section provides information on the availability and effectiveness of the rescue and fire fighting services at the aerodrome.

Id: 52 **Aerodrome rescue fire service (AFRS) availability (Availability ARFS)**

Predefined value list

- Available (The aerodrome rescue fire service was available.) 1
- Not available (The aerodrome rescue fire service was not available.) 2

  The aerodrome did have a rescue and fire fighting service, however, this service was not available at the time of the occurrence.
- Not applicable (No aerodrome rescue fire service was provided.) 97

Id: 119 **Aerodrome Rescue Fire Service category published (Category published)**

Predefined value list

Aerodrome category for rescue and fire fighting is explained under entry for RFS provided. ICAO Annex 14. This describes the category that was published.

- Cat 1: L 0-9m W 2m (The aerodrome fire service category was indicated as Category 1) 1

  Category 1 fire service provides rescue and fire fighting service for aircraft up to 9 metres in overall length with a maximum fuselage width of 2 metres.
- Cat 2: L 9-12m W 2m (The aerodrome fire service category was indicated as Category 2.) 2

  Category 2 fire service provides rescue and fire fighting service for aircraft up to 12 metres in overall length with a maximum fuselage width of 2 metres.
- Cat 3: L 12-18m W 3m (The aerodrome fire service category was indicated as Category 3) 3

  Category 3 fire service provides rescue and fire fighting service for aircraft up to 18 metres in overall length with a maximum fuselage width of 3 metres.
- Cat 4: L 18-24m W 4m (The aerodrome fire service category was indicated as Category 4.) 4

  Category 4 fire service provides rescue and fire fighting service for aircraft up to 24 metres in overall length with a maximum fuselage width of 4 metres.
- Cat 5: L 24-28m W 4m (The aerodrome fire service category was indicated as Category 5.) 5

  Category 5 fire service provides rescue and fire fighting service for aircraft up to 28 metres in overall length with a maximum fuselage width of 4 metres.
- Cat 6: L 28-39m W 5m (The aerodrome fire service category was indicated as Category 6.) 6

  Category 6 fire service provides rescue and fire fighting service for aircraft up to 39 metres in overall length with a maximum fuselage width of 5 metres.
- Cat 7: L 39-49m W 5m (The aerodrome fire service category was indicated as Category 7.) 7

  Category 7 fire service provides rescue and fire fighting service for aircraft up to 49 metres in overall length with a maximum fuselage width of 5 metres.
- Cat 8: L 49-61m W 7m (The aerodrome fire service category was indicated as Category 8.) 8

  Category 8 fire service provides rescue and fire fighting service for aircraft up to 61 metres in overall length with a maximum fuselage width of 7 metres.
- Cat 9: L 61-76m W 7m (The aerodrome fire service category was indicated as Category 9.) 9

  Category 9 fire service provides rescue and fire fighting service for aircraft up to 76 metres in overall length with a maximum fuselage width of 7 metres.
- Cat 10: L 76-90m W 8m (The aerodrome fire service category was indicated as Category 10.) 10

  Category 10 fire service provides rescue and fire fighting service for aircraft up to 90 metres in overall length with a maximum fuselage width of 8 metres.
- None (No rescue fire service for aircraft was indicated.) 97
- Other (The rescue and fire fighting service for aircraft indicated was other than those categories mentioned above.) 98

- Unknown (The type of rescue and fire fighting service indicated as being provided for aircraft is not known.) 99

Id: 289 Aerodrome rescue fire service time to alert (ARFS Time to alert)

Manual entry

The interval between the time of the occurrence and the receipt of the alert by the aerodrome rescue fire service.

Id: 99 Aerodrome RFS extinguishing agent type (Extinguishing agent type)

Predefined value list

The types of extinguishing agent used by the rescue fire services on the aerodrome.

- AFFF (Aqueous film-forming foam was used by the rescue fire service as an extinguishing agent.) 3
- Dry chemical (Dry chemicals were used by the rescue fire service as an extinguishing agent.) 5
- GPS (The satellite navigation system operated by the United States.) 11

  The satellite navigation system operated by the United States.
- Fluoroprotein foam (Fluoroprotein foam was used by the rescue fire service as an extinguishing agent.) 4
- Halons (Halon was used by rescue fire service as an extinguishing agent.) 6
- Protein foam (Protein foam was used by aerodrome rescue fire service as an extinguishing agent.) 2
- Water (Water was used by the rescue fire service as an extinguishing agent.) 1
- Other (Extinguishing agents other than those listed above were used by the rescue fire service.) 98
- Unknown (The type of extinguishing agents used by the rescue fire service were not established.) 99

Id: 290 ARFS time to intervention (ARFS Time intervention)

Manual entry

The time in hours from the receipt of the alert of the rescue fire service to when fire fighting operations commenced.

Id: 24 Category of aerodrome RFS provided (Category provided)

Predefined value list

Category of aerodrome fire service provided at the time of the occurrence: a measure of the level of fire protection provided at the aerodrome. ICAO Annex 14.

- Cat 1: L 0-9m W 2m (The aerodrome rescue fire service level provided was Category 1.) 1

  RFS Category 1 is the provision of rescue fire service for aircraft up to 9 metres in overall length with a maximum fuselage width of 2 metres. ICAO Annex 14.
- Cat 2: L 9-12m W 2m (The aerodrome rescue fire service level provided was Category 2.) 2

  RFS Category 2 is the provision of rescue fire service for aircraft of 9 metres but less than 12 metres in overall length with a maximum fuselage width of 2 metres. ICAO Annex 14.
- Cat 3: L 12-18m W 3m (The aerodrome rescue fire service level provided was Category 3.) 3

  RFS Category 3 is the provision of rescue fire service for aircraft of 12 metres but less than 18 metres in overall length with a maximum fuselage width of 3 metres. ICAO Annex 14.
- Cat 4: L 18-24m W 4m (The aerodrome rescue fire service level provided was Category 4.) 4

  RFS Category 4 is the provision of rescue fire service for aircraft of 18 metres but less than 24 metres in overall length with a maximum fuselage width of 4 metres. ICAO Annex 14.
- Cat 5: L 24-28m W 4m (The aerodrome rescue fire service level provided was Category 5) 5

  RFS Category 5 is the provision of rescue fire service for aircraft of 24 metres but less than 28 metres in overall length with a maximum fuselage width of 4 metres. ICAO Annex 14.

- Cat 6: L 28-39m W 5m (The aerodrome rescue fire service level provided was Category 6.) 6

  RFS Category 6 is the provision of rescue fire service for aircraft of 28 metres but less than 39 metres in overall length with a maximum fuselage width of 5 metres. ICAO Annex 14.

- Cat 7: L 39-49m W 5m (The aerodrome rescue fire service level provided was Category 7.) 7

  RFS Category 7 is the provision of rescue fire service for aircraft of 39 metres but less than 49 metres in overall length with a maximum fuselage width of 5 metres. ICAO Annex 14.

- Cat 8: L 49-61m W 7m (The aerodrome rescue fire service level provided was Category 8.) 8

  RFS Category 8 is the provision of rescue fire service for aircraft of 49 metres but less than 61 metres in overall length with a maximum fuselage width of 7 metres. ICAO Annex 14.

- Cat 9: L 61-76m W 7m (The aerodrome rescue fire service level provided was Category 9.) 9

  RFS Category 9 is the provision of rescue fire service for aircraft of 61 metres but less than 76 metres in overall length with a maximum fuselage width of 7 metres. ICAO Annex 14.

- Cat 10: L 76-90m W 8m (The aerodrome rescue fire service level provided was Category 10.) 10

  RFS Category 10 is the provision of rescue fire service for aircraft of 76 metres but less than 90 metres in overall length with a maximum fuselage width of 8 metres. ICAO Annex 14.

- None (No aerodrome rescue or fire fighting service was provided.) 97
- Other (The actual aerodrome rescue fire service level provided was other than one of the categories listed above.) 98
- Unknown (The type of aerodrome service provided for rescue and fire fighting was not determined.) 99

Id: 89 Fire fighting effectiveness (Fire fighting effectiveness)

Predefined value list

Information of the effectiveness of the fire fighting efforts.

- Very effective (The efforts of the rescue fire service were very effective.) 1

  The fire fighting efforts enabled all occupants to be rescued without injuries from the fire.

- Moderately effective (The efforts of the rescue fire service were moderately effective.) 2

  The fire fighting efforts enabled all occupants to be rescued but some sustained injuries from the fire.

- Ineffective (The efforts of the rescue fire service were ineffective.) 3

  The fire fighting efforts did not enable any occupants to be rescued from the fire.

- Unknown (The effectiveness of the rescue fire service's efforts was not established.) 99

Id: 238 Reasons why the ARFS ineffective (Reason ARFS ineffective)

Predefined value list

Select from menu the main reason why the aerodrome rescue fire service's fire fighting efforts were not effective.

- Not applicable (The aerodrome rescue fire service was effective.) 97
- Arrived late (The aerodrome rescue fire service was ineffective due to late arrival.) 4
- Command problem (The aerodrome rescue fire service was ineffective due to a command problem.) 12
- Communication problem (The aerodrome rescue fire service was ineffective due to a communication problem.) 13
- Co-ordination problem (The aerodrome rescue fire service was ineffective due to a co-ordination problem.) 10
- Darkness (The aerodrome rescue fire service was ineffective due to darkness.) 3
- Equipment failed (The aerodrome rescue fire service was ineffective due to an equipment failure.) 14
- Inadequate emergency planning (The aerodrome rescue fire service was ineffective due to inadequate emergency planning.) 11
- Inadequate equipment (The aerodrome rescue fire service was ineffective due to inadequate equipment.) 9

- Inadequate training (The aerodrome rescue fire service was ineffective due to inadequate training.) 8
- Insufficient extinguishing agent (The aerodrome rescue fire service was ineffective due to insufficient extinguishing agent.) 15
- Maps inacc/unavailable (The aerodrome rescue fire service was ineffective due to inaccurate maps or unavailability of maps.) 7
- Obstacles (The aerodrome rescue fire service was ineffective due to obstacles.) 6
- Terrain (The aerodrome rescue fire service was ineffective due to terrain.) 2
- Terrain unfamiliar (The aerodrome rescue fire service was ineffective due to unfamiliarity with terrain.) 5
- Weather/visibility (The aerodrome rescue fire service was ineffective due to weather/visibility.) 1
- Other (The aerodrome rescue fire service was ineffective due to reasons other than those listed above.) 98
- Unknown (The reasons why the aerodrome rescue fire service was ineffective was not established.) 99

Id: 233 RFS extinguishing agent quantity (Extinguishing agent quantity)

Manual entry

The total amount of extinguishing agent expanded by the aerodrome rescue fire service.

Topic: History of flight

Section: Approach. (Approach)

This section provides information on the type of approach flown by this aircraft and the approach aids used by the aircraft.

Id: 40 **Aircraft approved for precision approach (A/c app for prec app)**

Predefined value list

Information on the precision approach category for which the aircraft was approved.

- CAT I (The aircraft was approved for a Category l precision approach and landing.) 1

  The aircraft was approved for a precision instrument approach and landing with a decision height not lower than 60 m (200 ft) and with either a visibility not less than 800 m or an RVR not less than 550 m.

- CAT II (The aircraft was approved for a Category II precision approach and landing.) 2

  The aircraft was approved for a precision instrument approach and landing with a decision height lower than 60 m (200 ft) but not lower than 30 m (100 ft) and an RVR not less than 350 m.

- Category III (There is no longer a Category III) 3
- CAT III A (The aircraft was approved for a Category III A precision approach and landing.) 4

  The aircraft was approved for a precision instrument approach and landing with a decision height lower than 30 m (100 ft) or no decision height and an RVR not less than 200 m.

- CAT III B (The aircraft was approved for a Category III B precision approach and landing.) 5

  The aircraft was approved for a precision instrument approach and landing with a decision height lower than 15 m (50 ft) or no decision height and an RVR of less than 200 m but not less than 50m.

- CAT III C (The aircraft was approved for a Category III C precision approach and landing.) 6

  The aircraft was approved for a precision instrument approach and landing with no decision height lower than 15 m (50 ft) or no decision height and no RVR limitations.

- None (The aircraft was not approved for a precision approach and landing.) 97
- Unknown (Whether the aircraft was approved for a precision approach and landing was not established.) 99

Id: 41 **Approach errors (Approach errors)**

Predefined value list

Information on approach errors, if any, as determined by the investigation.

- Airspeed (The investigation determined that the nature of the error made during the approach was that the airspeed was inappropriate for the approach.) 2

  The investigation determined that the nature of the error made during the approach was that the airspeed was inappropriate for the approach.
  Indicated airspeed means the speed of an aircraft as shown on its pitot static airspeed indicator calibrated to reflect standard atmosphere adiabatic compressible flow at sea level uncorrected for airspeed system errors.

- Rate of descent (The investigation determined that the nature of the error made during the approach was that the rate of descent was inappropriate for the approach.) 1

  The investigation determined that the nature of the error made during the approach was that the rate of descent was inappropriate for the approach.

- Other (The investigation determined that the nature of the error made during the approach, was other than control of the rate of descent or the airspeed.) 98
- Unknown (The investigation did not determine the nature of the error made during the approach.) 99

Id: 42 **Approach runway visual range status (Approach RVR status)**

Predefined value list

Information whether the status of RVR was above or below minima.
Runway Visual Range (RVR)- An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end. It is based on the sighting of either high intensity runway lights or on the visual contrast of other targets whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal visual range, not slant visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. RVR is used in lieu of RVV and/or prevailing visibility in determining minimums for a particular runway.

1. Touchdown RVR- The RVR visibility readout values obtained from RVR equipment serving the runway touchdown zone.
2. Mid-RVR- The RVR readout values obtained from RVR equipment located midfield of the runway.
3. Rollout RVR- The RVR readout values obtained from RVR equipment located nearest the rollout end of the runway.

- Above minima (The runway visual range was above minima.) 1

  Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

- Below minima (The runway visual range was below minima) 2

  Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

- Unknown (Whether the RVR was within the required limits, was not established.) 99

  Runway visual range is the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

Id: 43 **Approach stabilized (Approach stabilized)**

Predefined value list

An approach is stabilized when: - the aircraft is on the correct flight path, - only small changes in heading and pitch are required to maintain the flight path, - the aircraft speed is no more than vref+ 15 kts and not less than vref, - the sink rate is no more than 1000 ft/min, - the aircraft is in proper approach and landing configuration, - the power setting is not less than the minimum specified for the type of aircraft, - all briefings and checklists have been performed, - all of the parameters must be met by 500 ft.

- Yes (The approach was stabilized.) 1

  The approach was stabilized as: the aircraft was on the correct flight path, only small changes in heading and pitch were required to maintain the flight path, the aircraft speed was no more than vref+15 kts and not less than vref, the sink rate was no more than 1000 ft/min, the aircraft was in proper approach and landing configuration, the power setting was not less than the minimum specified for the type of aircraft, all briefings and checklists had been performed and all of the parameters were met by 500 ft agl.

- No (The approach was not stabilized.) 2

  The approach was not stabilized as not all of the following parameters were met by 500 ft agl : the aircraft to be on the correct flight path, small changes in heading and pitch only required to maintain the flight path, the aircraft speed to be no more than vref+15 kts and not less than vref, the sink rate to be no more than 1000 ft/min, the aircraft to be in proper approach and landing configuration, the power setting to be not less than the minimum specified for the type of aircraft and all briefings and checklists performed.

- Unknown (Whether the aircraft was stabilized on the approach was not established.) 99

Id: 165 Instrument approach type (Instr. approach type)

Predefined value list

The type of instrument approach, e.g. ILS complete or MLS.

- Not applicable (The instrument approach type is not applicable.) 97

  i.e. there was no instrument approach

- NDB (The instrument approach type was an non-directional beacon approach.) 1

  NDBs are used as fixes for instrument approaches but not primary sources of navigation; except for sparsely populated areas.

- NDB/DME (NDB/DME) 12

- ILS - back course (The instrument approach type was an instrument landing system-back course approach.) 9

  Under conventional ILS a back course ILS refers to a type of approach where an aircraft follows a localiser which provides lateral (left or right) guidance along a straight track to the runway when weather conditions prohibit a pilot from relying solely on visual cues. Since a back course approach does not provide precision or glide slope (vertical) guidance, this type of approach is referred to as a "non-precision" approach. The difference between a localizer 'front course' and a back course is that on a back course the signal from the localizer transmitter is reversed with reference to aircraft position."

- ILS-complete (The instrument approach type was an instrument landing system-complete approach.) 7

  An ILS is an approach aid that employs two radio beams to provide pilots with vertical and horizontal guidance during the landing approach. The localizer provides azimuth guidance, while the glide-slope defines the correct vertical descent profile. Marker beacons and high intensity runways lights are also part of the ILS.

- ILS-localizer (The instrument approach type was an instrument landing system-localizer approach.) 8

  An ILS is an approach aid employing two radio beams to provide pilots with vertical and horizontal guidance during the landing approach. The localizer provides azimuth guidance, while the glide-slope defines the correct vertical descent profile.
  Under conventional ILS localizer only ILS refers to a type of approach where an aircraft follows a localizer which provides lateral (left or right) guidance along a straight track to the runway when weather conditions prohibit a pilot from relying solely on visual cues."

- MLS (The instrument approach type was an microwave landing system approach.) 10

  An instrument approach using a microwave-based instrument approach system that offers a number of advantages such as the ability to fly segmented and curved precision approaches.

- PAR (The instrument approach type was precision approach radar approach.) 11

- R-nav (The instrument approach type was an area navigation approach.) 6

  An instrument approach using R-nav which is a method of navigation that permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

- TACAN (The instrument approach type was a tactical air navigation system approach.) 4

  An instrument approach using a TACAN which is a UHF radio navigation system that provides a pilot with relative bearing and distance to a beacon on the ground, a ship, or to specially equipped aircraft. TACAN is the primary tactical air navigation system for the military services ashore and afloat.

- VOR/DME (The instrument approach type was a very high frequency omni-directional radio range/distance measuring equipment approach.) 3

  An instrument approach using a DME which is a combination of ground and airborne equipment which gives a continuous slant range distance-from-station readout by measuring time-lapse of a signal transmitted by the aircraft to the station and responded back coupled with a VOR beacon to enable aircraft flight crew to measure their position relative to that beacon.

- VOR/TVOR (The instrument approach type was a very high frequency omni-directional radio range/terminal VOR approach.) 2

  A VOR is a radio navigation aid operating in the 108-118 MHz band. A VOR ground station transmits a two-phase directional signal through 360 deg. The aircraft's VOR receiver enables a pilot to identify his radial or bearing from/to the ground station.

- VORTAC (The instrument approach type was a VORTAC approach.) 5

  An instrument approach using a combined VOR and TACAN.

- SRA (Surveillance Radar Approach) 13

  Surveillance Radar Approach

- GNSS (Global Navigational Satellite System) 14

  GNSS (Global Navigation Satellite System) is a satellite system that is used to pinpoint the geographic location of a user's receiver anywhere in the world. Two GNSS systems are currently in operation: the United States' Global Positioning System (GPS) and the Russian Federation's Global Orbiting Navigation Satellite System (GLONASS). A third, Europe's Galileo, is slated to reach full operational capacity in 2008. Each of the GNSS systems employs a constellation of orbiting satellites working in conjunction with a network of ground stations.

  GNSS approach procedures: 7.2.3.1 Usually, flying a basic GNSS non-precision instrument approach procedure is very similar to a traditional approach. The differences include the navigational information displayed on the GNSS equipment control and display unit and the terminology used to describe some of the features. Flying a basic GNSS approach is normally point-to-point navigation and independent of any ground based navaids, or as it is otherwise known, area navigation. 7.2.3.2 GNSS procedures utilize a straight line (TOTO) flight from waypoint to waypoint, as sequenced in the database., Slight differences between the published track and the track presented may occur. These differences are usually due to rounding of the track bearing and/or the application of magnetic variation.(ICAO PANS-OPS, Part I)

- Other (The instrument approach type was other than one of those listed above.) 98
- Unknown (The type of instrument approach used was not determined.) 99

Id: 164 Instrument landing procedure (Instr. landing proc.)

Predefined value list

Instrument landing procedure, e.g. straight in, circling or side-step.

- Straight in (The instrument landing procedure was from a straight in approach.) 1
- Circling (The instrument landing procedure was from a circling approach.) 2

  Circling approach. An extension of an instrument approach procedure which provides for visual circling of the aerodrome prior to landing. PANS-OPS

- Side-step (The instrument landing procedure using a a side-step maneuvre.) 3

  Side-step maneuver: U.S.: A visual maneuver accomplished by a pilot at the completion of an instrument approach to permit a straight-in landing on a parallel runway not more than 1200 ft to either side of the runway to which the instrument approach was conducted.

- Unknown (The type of instrument landing procedure was unknown.) 99

Id: 231 Precision approach category flown (Precision app. cat.)

Predefined value list

The category of the precision approach that was flown.

Precision approach procedure : a standard instrument approach procedure in which an electronic glide slope is provided, such as ILS and PAR. (FAA)

- CAT I (The precision approach category was Category I.) 1

  Category I is a precision instrument approach and landing with a decision height not lower than 60 m (200 feet) and with a visibility not less than 800 m or an RVR not less than 550 m.

- CAT II (The precision approach category was Category II.) 2

  Category II is a precision instrument approach and landing with a decision height lower than 60 m (200 feet) but not lower than 30 m (100 feet) and an RVR not less than 350 m.

- CAT III A (The precision approach category was Category III A.) 4

  Category III A is a precision instrument approach and landing with a decision height lower than 30 m (100 feet) or no decision height and an RVR not less than 200 m.

- CAT III B (The precision approach category was Category III B.) 5

  Category III B is a precision instrument approach and landing with a decision height lower than 15 m (50 feet) or no decision height and an RVR less than 200 m but not less than 50 m.

- CAT III C (The precision approach category was Category III C.) 6

  Category III C is a precision instrument approach and landing with no decision height and no RVR limitations.

- Unknown (The category of the precision approach is not known.) 99

Id: 309 The type of visual approach slope indicator used (VASI used)

Predefined value list

Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI].
VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- None (No visual approach slope indicator system was used.) 97
- APAPI (The visual approach slope indicator systems used was an abbreviated precision approach path indicator.) 8

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI].
  VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- AT-VASIS (The visual approach slope indicator systems used was an advanced T- visual approach slope indicator system.) 6

  An AT-VASIS consists of 10 light units arranged on one side of the runway, in the form of a single wing bar of four light units, with a bisecting longitudinal line of six lights. The red 'fly up' indication is designed to be visual to ground level. The Airservices Australia Aeronautical Information Publication stated that the AT-VASIS: standard installation aims to provide an obstacle clearance of at least 11M above a 1.9 degree slope, within the azimuth splay of 7.5 degree either side of the runway centre line for a distance of 5 NM from the threshold.

- AVASIS (The visual approach slope indicator systems used was advanced visual approach slope indicator system.) 2

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI].
  VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- AVASIS 3 bar (The visual approach slope indicator systems used was a 3 bar advanced visual approach slope indicator system.) 4

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI]. VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- PAPI (The visual approach slope indicator system used was precision approach path indicator.) 7

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI]. VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- T-VASIS (The visual approach slope indicator systems used was T-visual approach slope indicator system.) 5

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI]. VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- VASIS 2 bar (The visual approach slope indicator system used was 2 bar visual approach slope indicator system.) 1

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI]. VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- VASIS 3 bar (The visual approach slope indicator systems used was a 3 bar visual approach slope indicator system.) 3

  Aerodrome/heliport visual approach slope indicator [VASI]/precision approach path indicator [PAPI]. VASIS:An approach slope indicator system consisting of four light units situated on the left side of the runway in the form of two wing bars referred to as the upwind and downwind wing bars. The aircraft is on slope if the upwind bar shows red and the downwind bar shows white, too high if both bars show white, and too low if both bars show red. Some aerodromes serving large aircraft have three-bar visual approach slope indicator systems (VASIS), which provide two visual glide paths (GP) to the same runway. The visual approach slope indicator system can be situated so as to provide three types of eye-to-wheel height (EWH): V1 (10 ft), V2 (25 ft) and V3 (25 ft and 45 ft).

- Other (The visual approach slope indicator system used was other than one of the types listed above.) 98
- Unknown (The visual approach slope indicator systems used was not determined.) 99

Id: 312 **Visual approach type (Visual approach type)**

Predefined value list

The type of visual approach, e.g. straight in or traffic pattern.

- Traffic pattern (The type of approach was visual using the traffic pattern.) 2

  Traffic pattern (also called traffic circuit or aerodrome traffic circuit). The specified path to be flown by aircraft operating in the vicinity of an aerodrome.

- Visual, IFR approach (The type of approach was visual from an instrument flight rules approach.) 3
- Visual, straight in (The type of approach was visual, straight in.) 1
- Not applicable (The approach was not visual.) 97
- Other (The type of visual approach was other than those listed above.) 98
- Unknown (The type of visual approach made was not determined.) 99

Section: ATS route. (ATS route)

This sections provides information on air traffic services route flown by the aircraft.

Id: 46 **ATS route name (ATS route name)**

Manual entry

The name of the ATS route.

Id: 47 **ATS route type (ATS route type)**

Predefined value list

The type of the air traffic services route.

- Advisory (The type of Air Traffic Services route involved was an ATS advisory route.) 2

  Advisory route. A designated route along which air traffic advisory service is available.

  Note. Air traffic control service provides a much more complete service than air traffic advisory service; advisory areas and routes are therefore not established within controlled airspace, but air traffic advisory service may be provided below and above control areas.

- B-RNAV (The type of Air Traffic Services route involved was an ATS area navigation route type "B".) 5

  Check this. According to ICAO Annex 11, "B" is for routes which are NOT area nav routes.

- CDR (The type of Air Traffic Services route involved was an conditional route.) 9

  A conditional route is an ATS route or a portion thereof which can be planned and used under certain specified conditions. CDRs can be divided into different categories according to their foreseen availability, flight planning possibilities and the expected level of activity of the possible associated TSAs. A CDR can be established in one or more of the three following categories : a) Category One - permanently plannable CDR ; b) Category Two - Non Permanently CDR, and c) Category Three - not Plannable CDR.

- CDR1 (The type of Air Traffic Services route involved was a CDR1.) 10

  A CDR1 is an ATS route or a portion thereof which is permanently plannable.

- CDR2 (The type of Air Traffic Services route involved was a CDR2.) 11

  A CDR2 route is a non-permanent ATS route, or a portion thereof, which can be planned and used under certain specified conditions.

- CDR3 (The type of Air Traffic Services route involved was a CDR3.) 12

  A CDR3 route is a non-plannable ATS route, or a portion thereof, which can be used under certain specified conditions.

- Conventional (The type of Air Traffic Services route involved was conventional.) 1

- F-type (The type of Air Traffic Services route involved was an F type.) 3

  An F type of ATS route is an ATS portion of the route along which advisory service only is provided.

- K (helicopter) (The type of Air Traffic Services route involved was a K [helicopter] route.) 13

  A K [helicopter] route is an ATS low level route established for use primarily by helicopters.

- P-RNAV (The type of Air Traffic Services route involved was a P-RNAV.) 6

  A P-RNAV route is an area navigation route which forms part of the regional network of ATS routes.

- RNAV (The type of Air Traffic Services route involved was an ATS area navigation route.) 4

- RNP1-Y (The type of Air Traffic Services route involved was a RNP1-Y.) 7

  A RNP1-Y route is an ATS route which is not part of the regional network of ATS routes but an ATS route along which navigation performance 1 is required. Required navigation performance [RNP] is a fundamental parameter in the determination of separation together with intervention, route configuration, traffic density and controller intervention capability. The determination of the RNP type is dependent on the performance of the navigation equipment and associated source. The RNP type is based on a navigation performance accuracy value which is expected to be achieved at least 95 per cent of the time by the population of aircraft operating within the airspace.

- RNP1-Z (The type of Air Traffic Services route involved was an RNP1-Z.) 8

  An RNP1-Z route is an ATS route which is not part of the regional network of ATS routes but an ATS route along which navigation performance 1 is required. Required navigation performance [RNP] is a fundamental parameter in the determination of separation together with intervention, route configuration, traffic density and controller intervention capability. The determination of the RNP type is dependent on the performance of the navigation equipment and associated source. The RNP type is based on a navigation performance accuracy value which is expected to be achieved at least 95 per cent of the time by the population of aircraft operating within the airspace.

- S (supersonic) (The type of Air Traffic Services route involved was an S [supersonic] route.) 14

  An S [supersonic] route is an ATS route established for use by supersonic aircraft exclusively during acceleration, deceleration and while in supersonic flight. ICAO Annex 11

- Other (The type of Air Traffic Services route involved was other than one above.) 98

Id: 246 Relevant TAS route segment (Relevant segment)

Manual entry

Relevant traffic advisory system route segment.

Id: 279 Standard instrument arrival route (STAR)

Manual entry

A standard instrument arrival route is a designated instrument flight rule arrival route linking a significant point, normally on an air traffic services route, with a point from which a published instrument approach procedure can be commenced. PANS-OPS/I.

Id: 264 Standard instrument departure (SID route)

Manual entry

Standard instrument departure: A designated instrument flight rule (IFR) departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences. PANS-OPS/I, PANS-OPS/II.

Section: Head-up display. (Head-up display)

This section provides information on installation and use of head-up display.

Id: 137 Heads up display installed (HUD installed)

Predefined value list

Information whether a heads-up display was installed or not. A Heads-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield, superimposed for a conformal view with the external visual scene and which permits the pilot to manoeuvre the aircraft manually by reference to that information and guidance alone to at least the same degree of performance and reliability as that required for the automatic flight control system acceptable for the category of operation concerned.

- Yes (A head-up display was installed.) 1

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

- No (A head-up display was not installed.) 2

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

- Unknown (Whether a head-up display was installed is unknown.) 99

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

Id: 138 Heads up display used (HUD used)

Predefined value list

Information whether a heads up display was used in this aircraft. A heads up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield, superimposed for a conformal view with the external visual scene and which permits the pilot to manoeuvre the aircraft manually by reference to that information and guidance alone to at least the same degree of performance and reliability as that required for the automatic flight control system acceptable for the category of operation concerned.

- Yes (A head-up display was used.) 1

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

- No (A head-up display was not used.) 2

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

- Unknown (Whether the head-up display was used is unknown.) 99

  A head-up display is an airborne instrument system which presents sufficient information and guidance in a specific area of the aircraft windshield to permit the pilot to manoeuvre the aircraft manually, by reference to that information and guidance alone, to at least the same standard as that required for the automatic flight control system.

Section: Itinerary. (Itinerary)

This sections provides information on the point of departure and the planned destination of the aircraft.

Id: 88 **Duration of flight (Duration of flight)**

Manual entry

"Flight time" : The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight. Note 1: The definition of flight includes movement on the ground. "Flight time". Note 2. Flight time as here defined is synonymous with the term "block to block" time or "chock to chock" time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it stops at the end of the flight. ICAO Annex 6.

Id: 167 **Last departure point (Last departure point)**

Predefined value list : values from table [V4 CD Location Indicators]

The aerodrome or place from which the flight originated.

Id: 213 **Occurrence on ground (Occ. on ground)**

Predefined value list

An indication of whether the aircraft was airborne or not at the time of the occurrence.

- Yes (The occurrence was while the aircraft was on the ground.) 1
- No (The occurrence was while the aircraft was airborne.) 2
- Unknown (Whether the occurrence was on the ground is not known.) 99

Id: 228 **Planned destination (Planned destination)**

Predefined value list : values from table [V4 CD Location Indicators]

The place of intended landing.

Id: 121 **The flight phase in which the occurrence took place (Flight phase)**

Predefined value list

Enter the most significant phase of flight related to the occurrence. This is the phase of flight in which the event occurred which defined the accident/incident. Usually, this is the phase of flight in which the first event of the occurrence took place.

- Standing (The occurrence took place when the aircraft was standing.) 1

  The phase of flight in which the occurrence took place was when the aircraft was standing.

- Taxi (The occurrence took place when the aircraft was taxiing.) 2

  The phase of flight in which the occurrence took place was when the aircraft was taxiing.

- Take-off (The occurrence took place when the aircraft was taking off.) 3

  The occurrence took place when the a/c was taking off.

- En route (The occurrence took place when the aircraft was en route.) 4

  The occurrence took place during the phase of flight from the completion of initial climb at the departure aerodrome to the completion of controlled descent to the outer marker [IFR] or [VFR] to completion of the controlled descent to the VFR pattern or 1,500 feet [450 metres] above runway end elevation, whichever comes first.

- Approach (The occurrence took place when the aircraft was approaching the aerodrome.) 6

  The phase of flight in which the occurrence took place was when the aircraft was on approach to the aerodrome.

- Landing (The occurrence took place when the aircraft was landing.) 7
  The phase of flight in which the occurrence took place was when the aircraft was landing.
- Manoeuvring (The occurrence took place when the aircraft was manoeuvring.) 5
  The phase of flight in which the occurrence took place was when the aircraft was manoeuvring.
- Post-impact (The occurrence took place after the aircraft's initial impact.) 8
- Unknown (The phase of flight during which the occurrence took place is unknown.) 99

Section: Landing. (Landing)

This sections provides details on the type of landing, the location in relation to an airdrome as well as the type of landing aids used by this aircraft.

Id: 51 **Automatic landing (Automatic landing)**

Predefined value list

Information to indicate whether the aircraft was under the control of airborne equipment which provides automatic control of the aeroplane during the approach and landing.

- Yes (An automatic landing was being carried out.) 1

  The aircraft was under the control of the airborne equipment which enabled it to land without any input from the flight crew.

- No (An automatic landing was not being carried out.) 2

  The aircraft was not under the control of the airborne equipment which enables it to land without any input from the flight crew.

- Unknown (Not known if automatic landing was being carried out.) 99

Id: 92 **Electronic landing aids used (Electronic landing aids)**

Predefined value list

Information on the electronic landing aids used by this aircraft in this landing. This includes ground based aids as well as GPS (global positioning system).

- DME (The aircraft crew were using the distance measuring equipment.) 7

  A DME is a combination of ground and airborne equipment which gives a continuous slant range distance-from-station readout by measuring time-lapse of a signal transmitted by the aircraft to the station and responded back. A DME is usually coupled with a VOR beacon to enable aircraft to measure their position relative to that beacon.

- GNSS (Global Navigation Satellite System) 11

  GNSS (Global Navigation Satellite System) is a satellite system that is used to pinpoint the geographic location of a user's receiver anywhere in the world. Two GNSS systems are currently in operation: the United States' Global Positioning System (GPS) and the Russian Federation's Global Orbiting Navigation Satellite System (GLONASS). A third, Europe's Galileo, is slated to reach full operational capacity in 2008. Each of the GNSS systems employs a constellation of orbiting satellites working in conjunction with a network of ground stations.

- ILS back course (The aircraft crew were using the instrument landing system back course.) 3

  Under conventional ILS a back course ILS refers to a type of approach where an aircraft follows a localiser which provides lateral (left or right) guidance along a straight track to the runway when weather conditions prohibit a pilot from relying solely on visual cues. Since a back course approach does not provide precision or glide slope (vertical) guidance, this type of approach is referred to as a "non-precision" approach. The difference between a localizer 'Front Course' and a back course is that on a back course the signal from the localizer transmitter is reversed with reference to aircraft position.

- ILS complete (The aircraft crew were using the complete instrument landing system.) 1

  An ILS is an approach aid employing two radio beams to provide pilots with vertical and horizontal guidance during the landing approach. The localizer provides azimuth guidance, while the glide-slope defines the correct vertical descent profile. Marker beacons and high intensity runways lights are also part of the ILS.

- ILS - localizer only (The aircraft crew were using the instrument landing system-localizer only.) 2

  An instrument landing system [ILS] is an approach aid employing two radio beams to provide pilots with vertical and horizontal guidance during the landing approach. The localizer provides azimuth guidance, while the glide-slope defines the correct vertical descent profile. Under conventional ILS a localizer only ILS refers to a type of approach where an aircraft follows a localizer which provides lateral (left or right) guidance along a straight track to the runway when weather conditions prohibit a pilot from relying solely on visual cues.

- MLS (The aircraft crew were using the microwave landing system.) 6

  An MLS is a microwave-based instrument approach system intended to replace ILS to offer a number of advantages such as the ability to fly segmented and curved precision approaches.

- NDB (The aircraft crew were using the non-directional beacon.) 4

  The NDB is a medium-frequency navigational aid which transmits non-directional signals, superimposed with a Morse code identifier and received by an aircraft's automatic direction finder.

- PAR/GCA (The aircraft crew were using the precision approach radar/ground controlled approach.) 8
- TACAN (The aircraft crew were using the tactical air navigation system.) 9

  TACAN is the primary UHF radio tactical air navigation system for the military services ashore and afloat. TACAN provides a pilot with the aircraft's relative bearing and distance to a beacon on the ground, or on a ship, or to a specially equipped aircraft.

- Surveillance Radar (Surveillance Radar) 10
- VOR (The aircraft crew were using the very high frequency omni-directional radio range.) 5

  A VOR is a radio navigation aid operating in the 108 to 118 MHz band. A VOR ground station transmits a two-phase directional signal through 360 degrees. The aircraft's VOR receiver enables a pilot to identify his radial or bearing from/to the ground station.

- None (The aircraft crew were not using any electronic landing aid.) 97
- Other (The aircraft crew were using an electronic landing aid other than any of those listed above.) 98
- Unknown (The type of electronic landing aid used by the flight crew was not established.) 99

Id: 172 Location of the landing (Landing location.)

Predefined value list

The general description of the location of a landing, to capture whether the landing was on/off an aerodrome or on water etc.

- On land/on aerodrome (The forced landing occurred on an aerodrome.) 1
- On land/off aerodrome (The forced landing occurred on land/off aerodrome.) 2
- On water (The forced landing occurred on water.) 3
- Oil-rig (The forced landing occurred on an oil-rig.) 4
- Ship (The forced landing occurred on a ship.) 5
- Unknown (The location of the forced landing is unknown.) 99

Id: 298 Type of landing (Type of landing)

Predefined value list

Information whether this was other than a normal landing, e.g. a forced, a precautionary or a simulated forced landing.

- Forced landing (The type of landing was a forced landing.) 1

  A landing necessitated by failure of engines, systems, or components which makes continued flight impossible, and which may or may not result in damage.

- Precautionary landing (The type of landing was a precautionary landing.) 2

  A landing necessitated by apparent impending failure of engines, systems, or components which makes continued flight inadvisable.

- Simulated forced landing (The type of landing was a simulated forced landing.) 3

  e.g. practicing autorotative landings in a helicopter.

- Regular landing (Regular landing.) 4

  A landing that was neither a forced landing nor a precautionary landing.

- Unknown (The type of landing involved was not established.) 99

Section: Person at controls at first event. (Person at controls)

This section provides information on which person, if any, was at controls at the first event.

Id: 44 **Person at controls at the first event (Person at controls)**

Predefined value list

Identification of the person who was at the controls of the aircraft at the first event.

- Pilot-in-command (The pilot-in-command was flying the aircraft when the first event occurred.) 1

  Pilot: A licensed pilot serving as pilot-in-command .

- Co-pilot (The co-pilot was flying the aircraft when the first event occurred.) 2

  Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

- Both pilots flying (Both pilots were flying the aircraft in sequence when the first event occurred.) 4
- Student pilot (The student pilot was flying the aircraft when the first event occurred.) 3

  Student pilot. A licensed pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

- No one (No one was flying the aircraft when the first event occurred - the auto pilot was engaged, or the pilot(s) was incapacitated, or the pilots had left the aircraft.) 97
- Other (The aircraft was being flown by a person other than a pilot when the first event occurred.) 98
- Unknown (Whether anyone was flying the aircraft when the first event occurred was not established.) 99

Section: Speed at first event. (Aircraft speed 1st event)

This section provides in formation on the speed of the aircraft at the first event.

Id: 273 **Speed at first event (Speed (first event))**

Manual entry

The aircraft speed at the first event.

Id: 292 **True airspeed at first event (True airspeed)**

Manual entry

The true airspeed at the first event. True airspeed: The speed of the aeroplane relative to undisturbed air. ICAO Annex 6.

Id: 276 **Type of speed at first event (Type of speed)**

Predefined value list

The type of speed at the first event, e.g. indicated air speed or ground speed.

- Ground speed (The speed used in describing the first event is ground speed.) 2

  Ground spee: The speed of an aircraft relative to the surface of the earth. (ICAO Doc 9426)

- Indicated airspeed (The speed used in describing the first event is indicated airspeed.) 1

  Indicated airspeed means the speed of an aircraft as shown on its pitot static airspeed indicator calibrated to reflect standard atmosphere adiabatic compressible flow at sea level uncorrected for airspeed system errors.

- Not applicable (The aircraft was stationary at the time of the first event.) 97
- Unknown (The type of speed used in describing the first event is unknown.) 99

Topic: Injuries

Section: Autopsy. (Autopsy)

This section provides information on which categories of persons autopsies were performed.

Id: 218 **Categories of persons on whom autopsies have been performed (Persons autopsied)**

Predefined value list

Information on which categories of persons autopsies have been performed.

- Flight crew (Autopsies were performed on the deceased flight crew.) 1
- Cabin crew (Autopsies were performed on the deceased cabin crew.) 2
- Passengers (Autopsies were performed on the deceased passengers.) 3
- None (No autopsies were performed on the deceased occupants.) 98
- Unknown (The category of deceased occupants on whom autopsies were performed is unknown.) 99
- Other on aircraft (Other on aircraft) 97

  Other on aircraft

Section: Incapacitation (Incapacitation)

This section provides information on incapacitation by category of person, severity of and reason for, the incapacitation.

Id: 418 **Person incapacitated (Person incapacitated)**

Predefined value list

Category of the incapacitated person.

- Flight crew member (A flight crew member was incapacitated.) 1
- Cabin crew member (A cabin crew member was incapacitated.) 2
- Passenger (A passenger was incapacitated.) 3
- Air traffic controller (An air traffic controller was incapacitated.) 4
- None (No person was incapacitated.) 97
- Other (The person who was incapacitated was other than one the categories above.) 98
- Unknown (The category of the person who was incapacitated is not known.) 99

Id: 419 **Reason for incapacitation (Reason for incapacity)**

Predefined value list

The reason for the incapacitation of this category of person.

- Alcohol (The reason for the person's incapacitation was consumption of alcohol.) 4
- Carbon monoxide (The reason for the person's incapacitation was inhalation of carbon monoxide.) 6
- Chemicals (The reason for the person's incapacitation was related to chemicals.) 7
- Drugs (The reason for the person's incapacitation was drug abuse.) 3
- Food poisoning (The reason for the person's incapacitation was food poisoning.) 10
- Hypoxia (The reason for the person's incapacitation was hypoxia.) 9
- Injury (The reason for the person's incapacitation was an injury.) 8
- Medical condition (The reason for the person's incapacitation was a medical condition.) 1
- Psychiatric condition (The reason for the person's incapacitation was a psychiatric condition.) 2
- Smoke/fumes (The reason for the person's incapacitation was inhalation of smoke/fumes.) 5
- Not applicable (The person was not incapacitated.) 97
- Other (The reason for the person's incapacitation was other than one of the above.) 98
- Unknown (The reason for the person's incapacitation was unknown.) 99

Id: 420 **Severity of incapacitation (Severity of incapacity)**

Predefined value list

The severity of incapacitation suffered by this person.

- Complete (The person's incapacitation was complete.) 1
- Partial (The person's incapacitation was partial.) 2
- Temporary (The person's incapacitation was temporary.) 3
- None (The person was not incapacitated.) 97
- Unknown (The type of the person's incapacitation is unknown.) 99

Section: Injuries. (Injuries)

This section provides details of the number of injured persons on board the aircraft.

Id: 147 **Crew total (Crew total)**
Manual entry
The total number of crew who were on this aircraft.

Id: 100 **Fatal injuries cabin crew (Fatal, cabin crew)**
Manual entry
The total number of fatally injured cabin crew on this aircraft.

Id: 108 **Fatal injuries co-pilot (Fatal, co-pilot)**
Manual entry
The total number of co-pilots on this aircraft who were fatally injured. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Id: 109 **Fatal injuries crew total (Fatal, crew total)**
Manual entry
The total number of crew (including cabin crew) on this aircraft who were fatally injured. Crew member: A person assigned by an operator to duty on an aircraft during a flight duty period. ICAO Annex 6, 9 and 18.

Id: 110 **Fatal injuries other flight crew (Fatal, other flight crew)**
Manual entry
The total number of the flight crew on this aircraft, excluding the pilot and co-pilot who were killed. Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during flight time. ICAO Annex 1. This also includes a student pilot under contol of an instructor.

Id: 111 **Fatal injuries passengers (Fatal, passengers)**
Manual entry
The total number of fatally injured passengers on this aircraft.

Id: 112 **Fatal injuries pilot-in-command (Fatal, pilot)**
Manual entry
The number of fatally injured pilots-in-command on this aircraft. By definition this number is either 0 (i.e. not fatally injured) or 1.

Id: 114 **Fatal injuries total (Fatal, total)**
Manual entry
The total number of persons fatally injured in the occurrence. This is the sum of all the occupants fatally injured on this aircraft plus any persons (third party) on the ground.

Id: 115 **Fatal injuries unknown (Fatal, unknown)**

Manual entry

The number of unidentified persons who were fatally injured.

Id: 152 **Grand total (Grand total)**

Manual entry

The total number of persons involved in the occurrence i.e. the sum of the persons on this aircraft, the other aircraft plus the persons on the ground who were injured (third party injury). Note, the apparent inconcistency regarding the treatment of persons on the ground is caused by the exclusion of the non-injuried perons on the ground as their number cannot be determined.

Id: 153 **Injuries total unknown (Injuries unknown total)**

Manual entry

The total number of persons sustaining unknown injuries in the occurrence.

Id: 154 **Injuries unknown cabin crew (Injuries unknown cabin crew)**

Manual entry

The total number of cabin crew sustaining unknown injuries on this aircraft.

Id: 155 **Injuries unknown co-pilot (Injuries unknown co-pilot)**

Manual entry

The total number of co-pilots sustaining unknown injuries on this aircraft. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Id: 156 **Injuries unknown crew total (Injuries unknown crew total)**

Manual entry

The total number of crew sustaining unknown injuries on this aircraft.

Id: 157 **Injuries unknown other flight crew (Injuries unk other flt crew)**

Manual entry

The total number of unknown injuries to the flight crew excluding the pilot and co-pilot. Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during flight time. ICAO Annex 1. This also includes a student pilot under contol of an instructor.

Id: 158 **Injuries unknown passengers (Injuries unknown passengers)**

Manual entry

The total number of passengers sustaining unknown injuries on this aircraft.

Id: 159 **Injuries unknown pilot-in-command (Injuries unknown pilot)**

Manual entry

The total number of pilots-in-command sustaining unknown injuries on this aircraft. This must be either "0" or 1 as there cannot be more than one pilot-in-command on board.

Id: 161 **Injuries unknown total (Injuries unknown total)**

Manual entry

The total number of persons that sustained unknown injuries in the occurrence. This is the sum of the unknown injuries of persons on board of the aircraft involved plus the total number of unknown injuries on the ground.

Id: 162 **Injuries unknown unknown (Injuries unknown)**

Manual entry

The number of persons of unknown category (i.e. it could not be determined whether they were crew, passengers, or third parties) who sustained injuries in the occurrence.

Id: 180 **Minor injuries cabin crew (Minor injuries-cabin crew)**

Manual entry

The total number of cabin crew on this aircraft sustaining minor injuries.

Id: 181 **Minor injuries co-pilot (Minor injuries-co-pilot)**

Manual entry

The total number of co-pilots on this aircraft sustaining minor injuries. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Id: 182 **Minor injuries crew total (Minor injuries-crew total)**

Manual entry

The total number of flight crew members on this aircraft sustaining minor injuries.

Id: 183 **Minor injuries other flight crew (Minor injuries-other crew)**

Manual entry

The total number of minor injuries to the flight crew on this aircraft, excluding the pilot and co-pilot. Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during flight time. ICAO Annex 1. This also includes a student pilot under contol of an instructor.

Id: 184 **Minor injuries passengers (Minor injuries-passengers)**

Manual entry

The total number of passengers on this aircraft sustaining minor injuries.

Id: 185 **Minor injuries pilot-in-command (Minor injuries-pilot)**

Manual entry

The total number of pilots-in-command on this aircraft sustaining minor injuries. N.B. This number is either "0", i.e. the pilot did not sustain any minor injuries or "1".

Id: 187 **Minor injuries total (Minor injuries-total)**

Manual entry

The total number of persons that sustained minor injuries in the occurrence.

Id: 188 **Minor injuries unknown (Minor injuries-unknown)**

Manual entry

The number of persons of unknown category (i.e. it could not be determined whether they were crew, passengers, or third parties) who sustained minor injuries in the occurrence.

Id: 190 **No injuries cabin crew (No injuries-cabin crew)**

Manual entry

The total number of cabin crew on this aircraft that were not injured.

Id: 191 **No injuries co-pilot (No injuries-co-pilot)**

Manual entry

The total number of co-pilots on this aircraft that were not injured. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Id: 192 **No injuries crew total (No injuries-crew total)**

Manual entry

The total number of crew on this aircraft that were not injured.

Id: 193 **No injuries other flight crew (No injuries-other flt crew)**

Manual entry

The total number of other flight crew (i.e. flight excluding pilot and co-pilot) on this aircraft that were not injured. This also includes a student pilot under contol of an instructor.

Id: 194 **No injuries passengers (No injuries-passengers)**

Manual entry

The total number of passenger aircraft that were not injured.

Id: 196 **No injuries persons other than the aircraft's crew or passengers (No other injuries on A/c)**

Manual entry

***** this field is not used. N.B. do not provide any data in this field. By definition, persons other than the aircraft's crew or passengers not injured in the occurrence are not involved in the occurrence as well.*

Id: 195 **No injuries pilot-in-command (No injuries-pilot)**

Manual entry

The total number of pilots-in-command on this aircraft that were not injured. By definition this number is either 0 (i.e. not fatally injured) or 1.

Id: 197 **No injuries total (No injuries total)**

Manual entry

The total number of persons in the occurrence that were not injured. This includes persons on this aircraft only.

Id: 198 **No injuries unknown (No inj unknown)**

Manual entry

The total number of persons of unknown category that were not injured.

Id: 113 **Other fatalities on Aircraft (Other fatalities on A/c)**

Manual entry

The persons fatally injured by an aircraft accident or incident other than the aircraft's crew or passengers.

Id: 255 **Serious injuries cabin crew (Serious injuries-cabin crew)**

Manual entry

The number of cabin crew who were seriously injured in this aircraft. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 256 **Serious injuries co-pilot (Serious injuries-co-pilot)**

Manual entry

The number of co-pilots who were seriously injured in this aircraft. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 257 **Serious injuries crew total (Ser injuries crew total)**

Manual entry

The number of crew members who were seriously injured in this aircraft. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 258 **Serious injuries other flight crew (Serious injuries-other crew)**

Manual entry

The total number of serious injuries to the flight crew on this aircraft, excluding the pilot and co-pilot. Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during flight time. ICAO Annex 1. This also includes a student pilot under contol of an instructor. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 259 **Serious injuries passengers (Serious injuries-passengers)**

Manual entry

The number of passengers who were seriously injured in this aircraft. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 260 **Serious injuries pilot-in-command (Serious injuries-pilot)**

Manual entry

The number of pilots-in-command who were seriously injured in this aircraft. By definition this number is either 0 (i.e. not fatally injured) or 1. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 262 **Serious injuries total (Serious injuries-total)**

Manual entry

The total number of persons seriously injured in the occurrence. For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 263 **Serious injuries unknown (Serious injuries-unknown)**

Manual entry

The number of persons of unknown category who were seriously injured in the occurrence.
For the definition of 'serious injury' see 'serious' under 'injury level'.

Id: 145 **Total cabin crew (Total cabin crew)**

Manual entry

The total number of cabin crew on this aircraft.

Id: 146 **Total co-pilot[s] (Total co-pilot[s])**

Manual entry

The total number of co-pilots on this aircraft. Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Id: 151 **Total number of persons affected by an aircraft accident or incident other than the aircraft's crew or passengers. (Total others on A/c)**

Manual entry

Total number of persons affected by an aircraft accident or incident other than the aircraft's crew or passengers.

Id: 186 **Total number of minor injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers. (Minor oth injuries on A/c)**

Manual entry

Total number of minor injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers.

Id: 261 **Total number of seriously injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers. (Serious other inj on A/c)**

Manual entry

Total number of seriously injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers.

Id: 160 **Total number of unknown injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers (Unk other injuries on A/c)**

Manual entry

Total number of unknown injured persons affected by an aircraft accident or incident other than the aircraft's crew or passengers.

Id: 148 **Total other flight crew on board (Total other flt crew)**

Manual entry

The total number of flight crew, excluding the pilot and co-pilot, who wereon this aircraft. Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during flight time. ICAO Annex 1. This also includes a student pilot under contol of an instructor.

Id: 149 **Total passengers (Total passengers)**

Manual entry

The total number of passengers on board this aircraft.

Id: 150 **Total pilot-in-command (Total pilot)**

Manual entry

The total number of pilots-in-command on board who were on this aircraft. By definition this number is either 0 (i.e. not injured) or 1.

Section: Injury types. (Injury types)

This section provides a breakdown of injuries and casualties by the nature of the injury sustained.

Id: 303 **(Unsp. injuries-drowning)**
Manual entry

Id: 101 **Fatal injuries caused by burns (Fatal, burns)**
Manual entry
The total number of fatal injuries on this aircraft caused by burns.

Id: 102 **Fatal injuries caused by drowning (Fatal, drowning)**
Manual entry
The total number of persons on this aircraft who drowned.

Id: 103 **Fatal injuries caused by fumes or gasses (Fatal, fumes or gasses)**
Manual entry
The total number of persons on this aircraft who were fatally injured by gases produced in the accident sequence.

Id: 104 **Fatal injuries caused by impact (Fatal, impact)**
Manual entry
The total number of persons on this aircraft who were fatally injured by the trauma received in the accident.

Id: 105 **Fatal injuries caused by other reasons (Fatal, other reasons)**
Manual entry
The total number of persons on this aircraft who were fatally injured by causes excluding impact, fire, gases, shock/exposure and drowning.

Id: 106 **Fatal injuries caused by shock exposure (Fatal, shock/exposure)**
Manual entry
The total number of persons on this aircraft who were died from shock or exposure.

Id: 107 **Fatal injuries caused by unknown reasons (Fatal, unknown reasons)**
Manual entry
The total number of persons on this aircraft who were killed by unknown causes.

Id: 199 **Non-fatal injuries caused by burns (Non-fatal injuries-burns)**
Manual entry
The number of survivors that were injured by burns.

Id: 201 **Non-fatal injuries caused by fumes or gasses (Non-fatal injuries-gasses)**
Manual entry
The number of survivors that were injured by fumes or gases.

Id: 202 **Non-fatal injuries caused by impact (Non-fatal injuries-impact)**
Manual entry
The number of survivors that were injured by impact.

Id: 204 **Non-fatal injuries caused by other reasons (Non-fatal injuries-other)**
Manual entry
The number of survivors that were injured by causes other than burns, fumes, gases, impact or shock/exposure.

Id: 203 **Non-fatal injuries caused by shock or exposure (Non-fatal injuries-shock)**
Manual entry
The number of survivors that were injured by shock or exposure.

Id: 205 **Non-fatal injuries caused by unknown reasons (Non-fatal injuries-unknown)**
Manual entry
The number of survivors that were injured by unknown causes.

Id: 302 **Unspecified injuries caused by burns (Unspecific injuries-burns)**
Manual entry
The total number unspecified injuries caused by burns, use only when it cannot be determined whether the injuries caused by burns were fatal or not.

Id: 304 **Unspecified injuries caused by fumes/gasses (Unspecific injuries-gasses)**
Manual entry
The total number unspecified injuries caused by exposure to, or inhalation of, fumes and gases, use only when it cannot be determined whether the injuries caused by fumes and gases were fatal.

Id: 305 **Unspecified injuries caused by impact (Unspecific injuries-impact)**
Manual entry
The total number unspecified injuries caused by impact trauma, use only when it cannot be determined whether the injuries caused by impact trauma were fatal.

Id: 306 **Unspecified injuries caused by other reasons (Unspecific injuries-other)**
Manual entry
The total number unspecified injuries caused by reasons other than impact, burns or shock/exposure. Use only when it cannot be determined whether these injuries were fatal.

Id: 307 **Unspecified injuries caused by shock or exposure (Unspecific injuries-shock)**
Manual entry
The total number unspecified injuries caused by shock or exposure, use only when it cannot be determined whether the injuries caused by shock or exposure were fatal.

Id: 308 **Unspecified injuries caused by unknown reasons (Unspecific injuries-unknown)**

Manual entry

The total number unspecified injuries caused by reasons unknown. N.B. With the exception of cases where the aircraft is missing and injuries are presumed, the use of this field should be avoided as the investigation should be able to determine the severity of the injury as well as its nature.

Topic: Management

Section: Database history (Database history)

This section records the history of the entry of the occurrence in the data base.

Id: 382 **Database access by (Database access by)**

Manual entry

The last persons who accessed the data base.

Id: 383 **Database access date (Database access date)**

Manual entry

The date of the last access to the data base.

Id: 384 **Database access type (Database access type)**

Predefined value list

The type of access made to the data base.

- Inserted ("Inserted" was the type of action on the data base.)	1
- Locked ("Locked" was the type of access to the data base.)	3
- Released ("Released" was the type of access to the data base.)	4
- Updated ("Updated" was the type of action on the data base.)	2

Section: Modifications. (Modifications)

This section records the history of any modifications to the entry of the occurrence in the data base.

Id: 423 **An optional explanatory note explaining the nature of the modification (Modification note)**
Manual entry

Id: 422 **The date the modification was embodied (Modification date)**
Manual entry

Id: 421 **The identification of the originator of a change (Modification made by)**
Manual entry

Section: Occurrence report (Occurrence report)

This section records the type of report used to notify the occurrence.

Id: 434 **Date report created (Date report created)**

Manual entry

The date when the report was created in the data base. This date is assigned by the computer. This date is formatted using the standard format 'YYYY/MM/DD HH:MM:SS' e.g. '2001/07/22 15:19:28'.

Id: 435 **Report date last modified (Report last modified)**

Manual entry

The date when the report was last modified. This date is formatted using the standard format 'YYYY/MM/DD HH:MM:SS' e.g. '2001/07/22 15:19:28'.

Id: 438 **Report identification (Report identification)**

Manual entry

The identifying file reference of the report.

Id: 446 **Report moderator (Report moderator)**

Manual entry

The name of the officer responsible for the report.

Id: 476 **Report source (Report source)**

Predefined value list

The source of the report, i.e. from investigations, voluntary reporting, media reports etc.

- Accident/Incident investigation (The report is of an investigation into an accident or serious incident.) 1

  States are mandated to carry out investigations into accidents. It is further recommended that States carry out investigation into serious incidents. (ICAO Annex 13)
  Reporting on the results of such investigation is governed by Annex 13, Chapter 7.
  Investigation: A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations. (Annex 13)

- Industry sources (Industry sources.) 5

  Information obtained, at times in confidence, from un-named sources in the aviation industry.

- Reportable incident (The report is of an investigation into a reportable incident.) 2

  An incident for which reporting is required by legislation / regulation.

- Media (Media.) 4

  Information obtained from the media, internet or any other publicly available source.

- Other (Other.) 6

  The report is based on information obtained from other sources than thoses listed above.

- Voluntary occurr report (A voluntary occurrence report.) 3

  A report on the occurrence rendered voluntarily by the reporter. Note: A voluntary report may cover occurrences for which reporting is mandatory.

Id: 455 **Report status (Report status)**

Predefined value list

The present status of the report, e.g. open, initial notification or preliminary.

- Closed (The report is closed.) 3

  No further information is expected to be received for the occurrence and no further action in respect to the occurrence is being contemplated.

- Open (The report is still open. Only initial information has been received. More may follow.) 2

  Some information was received, but the level of information received was not corresponding to the level expected in a notification or similar. It is expected that more information will be received in due course that may enhance the information und upgrade the status.

- Open - ready for coding (The handling of the occurrence by the competent authority has not yet been completed, but there is sufficient information at hand to analyse and code the occurrence) 6

  The handling of the occurrence by the competent authority has not yet been completed, but there is sufficient information at hand to analyse and code the occurrence

- Initial notification (Initial notification.) 5

  The record is based on, or contains information corresposnding to the level of information in the initial notification of an accident or incident provided in accordance with ICAO Annex 13, Chapter 4.

  Format and content:

  The notification shall be in plain language and contain as much of the following information as is readily available, but its dispatch shall not be delayed due to the lack of complete 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, and nationality of crew and passengers;

  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 the State of Occurrence;

  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)identification of the originating authority and means to contact the investigator-in-charge and the accident investigation authority of the State of Occurrence at any time; and

  m)presence and description of dangerous goods on board the aircraft.

- Preliminary (The document is a preliminary report.) 1

  Preliminary Report: the communication used for the prompt dissemination of data obtained in the early stages of the investigation. ICAO Annex 13. At the level of a State this status would indicate that sufficient information at hand to complete a preliminary report. More data is expected in due course, once an investigation has been completed.

- Data (Data Report) 4

  A report containing the factual information obtained in the investigation as well as the factors derived from the analysis and the safety recommendations, if any. This is the report required to be completed under Annex 13, Standard 7.5. At the national level this status would imply that the investigation has been completed and all relevant data have been transcribed into the data base. No further action is contemplated.

Id: 495 **Reporting form type (Reporting form type)**

Predefined value list : values from table [V4 CD Report Form Types]

Eurocontrol: Type of reporting form used for specifying facts of an occurrence.

Topic: Member

Section: ATM personnel measures (ATM personnel measures)

This section provides information on any action taken in respect of an air traffic management person as a result of the occurrence.

Id: 340 **ATM person's CISM initiated (CISM initiated)**

Predefined value list

Information on whether the air traffic management controller incident stress management programme was initiated.

- Yes (The air traffic management personnel controller incident stress management programme was initiated.) 1
- No (The ATM personnel CISM programme was not initiated.) 2

  The air traffic management personnel controller incident stress management programme was not initiated.
- Unknown (Whether the air traffic management personnel controller incident stress management programme was initiated was not determined.) 99

Id: 342 **Information on whether the air traffic management controller was relieved of his/her duties after the occurrence (Controller relieved)**

Predefined value list

- Yes (The air traffic management controller was relieved of his/her duties.) 1
- No (The air traffic management controller was not relieved of his/her duties.) 2
- Unknown (Whether the air traffic management controller was relieved of his/her duties was not determined.) 99

Id: 341 **The reason why the ATM person's CISM was not initiated (Reason no CISM)**

Manual entry

The reason why the air traffic management controller incident stress management programme was not initiated.

Id: 351 **The reason why this ATM controller was not relieved (Reason controller not relieved)**

Manual entry

The reason why this air traffic management controller was not relieved from duty after the occurrence.

Section: ATM person's identification. (ATM person identification)

This section provides identifying information on the air traffic management person involved in the occurrence.

Id: 357 **ATM person's category (Category ATM pers.)**

Predefined value list

The category of this air traffic management person, e.g. area supervisor, planning controller or radar assistant.

- Area supervisor (The category of the air traffic management person was area supervisor.) 2
- AFIS officer (The category of the air traffic management person was AFIS officer.) 12
- Co-ordinator (The category of the air traffic management person was co-ordinator.) 6
- Executive controller (The category of the air traffic management person was executive controller.) 4
- Flight data assistant (The category of the air traffic management person was flight data assistant.) 8
- Planning controller (The category of the air traffic management person was planning controller.) 5
- Radar assistant (The category of the air traffic management person was radar assistant.) 7
- Sector supervisor (The category of the air traffic management person was sector 3
- Supervisor other (The category of the air traffic management supervisor was a category of supervisor other than listed above.) 10
- Technical staff (The category of the air traffic management person was technical staff.) 9
- Watch supervisor (The category of the air traffic management person was watch supervisor.) 1
- Student (Student) 11
- Other (The category of the air traffic management person was other than one of those listed above.) 98

Id: 350 **Information whether this air traffic management person used a headset (Headset used ATCO)**

Predefined value list

- Yes (The air traffic management person was using a headset.) 1
- No (The air traffic management person was not using a headset.) 2
- Unknown (Whether the air traffic management person was using a headset is not known.) 99

Id: 339 **The age of the air traffic management person (Age ATCO)**

Manual entry

Id: 362 **The gender of this air traffic management person (Gender - ATCO)**

Predefined value list

- Female (The gender of the air traffic management person was female.) 1
- Male (The gender of the air traffic management person was male.) 2
- Unknown (The gender of the air traffic management person was not established.) 99

Section: ATM person's licences. (ATM persons licences)

This section provides information on the licences of the air traffic management person involved in the occurrence.

Id: 332 **ATM person's endorsement type (Endorsement type)**

Predefined value list : values from table [V4 CD ATM Rating Endorsment Types]

The type of endorsement of the air traffic management person.

Id: 333 **ATM person's endorsement validity (Endorsement validity)**

Predefined value list

The validity of the air traffic management person's endorsement, e.g. with/without waivers.

- Not valid (The air traffic management person's endorsement was not valid.) 1
- Valid no waivers (The air traffic management person's endorsement was valid with no medical waivers.) 3
- Valid, medical waivers (The air traffic management person's endorsement was valid with medical waivers.) 2
- Unknown (The air traffic management person's endorsement validity was not determined.) 99

Id: 354 **ATM person's licence type (Type of ATM licence)**

Predefined value list

The type of licence held by this air traffic management person.

- Air traffic controller (The air traffic management person's licence was as an air traffic controller.) 1
- AFIS officer (The air traffic management person's licence was as an AFIS officer.) 5
- Flight data operator (The air traffic management person's licence was as a flight data operator.) 3
- Student ATCO (The air traffic management person's licence was as a student air traffic controller.) 2

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.
- No licence (The air traffic management person had no licence.) 4
- Other (The air traffic management person's licence was other than one of the types listed above.) 98
- Unknown (Whether the air traffic management person's licence was valid is not known.) 99

Id: 352 **ATM person's licence validity (Licence validity ATCO)**

Predefined value list

The validity of the licence of this air traffic management person.

- Valid, no waivers (The air traffic management person's licence was valid with no medical waivers.) 1
- Valid, medical waivers (The air traffic management person's licence was valid with medical waivers.) 2
- Not valid (The air traffic management person's licence was not valid.) 97
- Unknown (Whether the air traffic management person's licence was valid is not known.) 99

Id: 335 **ATM person's rating validity (Rating validity)**

Predefined value list

A Rating is an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence. ICAO Annex 1.

- Not valid (The air traffic management person's rating was not valid.) 1
- Valid no waivers (The air traffic management person's rating valid with no medical waivers.) 3
- valid, medical waivers (The air traffic management person's rating valid with medical waivers.) 2
- Unknown (The air traffic management person's rating validity is unknown.) 99

Id: 331 **The number of days, weeks or months which have elapsed since the air traffic management person's endorsement was granted (Endorsement since)**

Manual entry

Id: 334 **The number of days, weeks or months which have elapsed since the air traffic management person's rating was granted (Rating since)**

Manual entry

A Rating is an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence. ICAO Annex 1.

Id: 353 **The number of weeks since this ATM person's licence was obtained (Age of ATM licence)**

Manual entry

The number of weeks since this air traffic management person obtained his/her licence.

Id: 336 **The type of rating obtained by the air traffic management person (Rating type)**

Predefined value list : values from table [V4 CD ATM Rating Endorsment Types]

A Rating is an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence. ICAO Annex 1.

Section: ATM person's workload. (ATM persons workload)

This section provides information on the workload of the individual air traffic management person involved in the occurrence.

Id: 360 **ATM person this day working from (Working from - ATCO)**

Manual entry

The time from which, on this day, the air traffic management person was expected to work.

Id: 361 **ATM person yesterday worked from (Yesterday from - ATCO)**

Manual entry

The time from which, yesterday, the air traffic management person was expected to work.

Id: 359 **ATM person yesterday worked to (Yesterday to - ATCO)**

Manual entry

The time until which, yesterday, the air traffic management person was expected to work.

Id: 346 **ATM person's duty segment (Duty segment ATCO)**

Predefined value list

The duty segment of the air traffic management person at the time of the occurrence, e.g. first, middle or end.

- First (The air traffic management person was on his/her first duty segment.) 1
- Middle (The air traffic management person was on his/her middle duty segment.) 2
- Last (The air traffic management person was on his/her last duty segment.) 3
- Unknown (Which duty segment the air traffic management person was on is not known.) 99

Id: 349 **ATM person's duty time before occurrence (Duty time before ATCO)**

Manual entry

The amount of time the ATM person had been on duty before the time of the occurrence.

Id: 348 **ATM person's time since last break (Time since last break ATCO)**

Manual entry

The amount of time elapsed from the time of the last break to the time of the occurrence for this air traffic management person.

Id: 344 **Day of ATM person's shift (Day of shift ATCO)**

Predefined value list

Information on which day of the present shift the air traffic management controller was involved.

- 1 (The air traffic management person was on day 1 of his/her shift.) 1
- 2 (The air traffic management person was on day 2 of his/her shift.) 2
- 3 (The air traffic management person was on day 3 of his/her shift.) 3
- 4 (The air traffic management person was on day 4 of his/her shift.) 4
- 5 (The air traffic management person was on day 5 of his/her shift.) 5
- 6 (The air traffic management person was on day 6 of his/her shift.) 6

- 7 (The air traffic management person was on day 7 of his/her shift.) 7
- Unknown (The day of the air traffic management person's shift was not established.) 99

Id: 345 **Duration of ATM person's last break (Duration last break ATCO)**
Manual entry
The duration of the air traffic management person's last break before the occurrence.

Id: 343 **The date of the ATM person's last time in position (Date last in position ATCO)**
Manual entry
The date on which the air traffic management person was last working in this position.

Id: 347 **The duty time of the air traffic management person in this position before the time of the occurrence (Duty time in position ATCO)**
Manual entry

Id: 358 **The time until which, on this day, the air traffic management person was expected to work (Working to - ATCO)**
Manual entry

Section: Flight crew experience. (Flight crew experience)

This section provides information on the experience of the flight crew member in terms of the number of hours flown; total and on this type of aircraft.

Id: 404 **Flight crew experience all aircraft categories last 24 hours (Experience all-24 hours)**

Manual entry

The number of hours flown by this flight crew member in the 24 hours preceding this occurrence.

Id: 405 **Flight crew experience all aircraft categories last 90 days (Experience all-90 days)**

Manual entry

The number of hours flown by this flight crew member in the 90 days preceding this occurrence.

Id: 410 **Flight crew experience all aircraft categories total (Experience all a/c)**

Manual entry

The number of hours flown on all aircraft categories by this flight crew member in the time preceding this occurrence.

Id: 406 **Flight crew experience this aircraft last 24 hours (Experience on a/c-24 hours)**

Manual entry

The number of hours flown by this flight crew member on this type of aircraft in the 24 hours preceding this occurrence.

Id: 407 **Flight crew experience this aircraft last 90 days (Experience on a/c-90 days)**

Manual entry

The number of hours flown by this flight crew member on this type of aircraft in the 90 days preceding this occurrence.

Id: 411 **Flight crew experience this aircraft total (Experience this a/c)**

Manual entry

The number of hours flown on this type of aircraft by this flight crew member in the time preceding this occurrence.

Section: Flight crew licences (Flight crew licences)

This section provides information on the flight crew licence, type rating, instrument rating, instructor rating and the validity of the licence.

Id: 395 **Flight crew instructor ratings (Instructor rating)**

Predefined value list

Information whether this flight crew member held an instructor rating.

- Yes (The flight crew instructor held a valid rating.)	1
- No (The flight crew instructor did not hold a valid rating.)	2
- Unknown (Whether the flight crew instructor held a valid rating was not established.)	99

Id: 396 **Flight crew instrument ratings (Instrument rating)**

Predefined value list

Information whether this flight crew member held an instrument rating.

- Yes (The flight crew member's instrument rating was valid.)	1
- No, rating expired (The flight crew member's instrument rating had expired.)	2
- No instrument rating (The flight crew member did not hold an instrument rating.)	3
- Unknown (Whether the flight crew member held an instrument rating was not established.)	99

Id: 398 **Flight crew licence ratings (Ratings)**

Predefined value list

Information on the ratings held by this flight crew member.
A Rating is an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence. ICAO Annex 1.

- Held required rating (The flight crew member held the required ratings on his/her licence.)	1
- No required rating (The flight crew member did not hold the required ratings on his/her licence.)	2
- Rating not required (The flight crew member did not require a rating on his licence.)	3
- Unknown (Whether the flight crew member held the required ratings on his licence was not established.)	99

Id: 397 **Flight crew licence validity (Validity)**

Predefined value list

Information on whether this flight crew member held a valid licence.

- Valid, no waivers (The flight crew member held a valid licence with no medical waivers.)	1
- Valid, medical waivers (The flight crew member held a valid licence with medical waivers.)	2
- Not valid (The flight crew member's licence was invalid.)	97
- Unknown (The validity of the flight crew member's licence was not established.)	99

Id: 400 **Flight crew licence, licence type (License type)**

Predefined value list : values from table [V4 CD License Types]

The type of licence held by this flight crew member.

Id: 399 **Licence issued by State of Registry (Registry State issued)**

Predefined value list

Information whether the licence of this crew member was issued by the State of Registry of this aircraft.

- Yes (The flight crew member's licence was issued by the aircraft's State of Registry.) 1
- No (The flight crew member's licence was not issued by the aircraft's State of Registry.) 2
- Unknown (Whether the flight crew member's licence was issued by the aircraft's State of Registry was not established.) 99

Section: Flight crew rest and duty time. (Flight crew rest/duty)

This sections provides information on the duty time in the last 24 hours and the flight crew rest period before duty.

Id: 403 **Flight crew duty time last 24 hours (Duty last 24 hours)**

Manual entry

Annex 6 Part I : Duty period: Flight duty period. The total time from the moment a flight crew member commences duty, immediately subsequent to a rest period and prior to making a flight or a series of flights, to the moment the flight crew member is relieved of all duties having completed such flight or series of flights.

Id: 408 **Flight crew rest period before duty (Rest before duty)**

Manual entry

Rest period. Any period of time on the ground during which a flight crew member is relieved of all duties by the operator.
Flight duty period. The total time from the moment a flight crew member commences duty, immediately subsequent to a rest period and prior to making a flight or a series of flights, to the moment the flight crew member is relieved of all duties having completed such flight or series of flights.
(Annex 6)

Section: Other personnel experience. (Other persons experience)

This section provides information on the experience of any non-flight crew person involved in the occurrence.

Id: 480 **Other personnel experience (Experience- Other pers.)**

Manual entry

The experience of the person in years.

Section: Other personnel involved in the occurrence. (Other persons)

This section provides information to describe a non-flight crew person involved in the occurrence.

Id: 479 **Other personnel age (Age - Other pers.)**

Manual entry

The age of the person in years.

Id: 482 **The function/position of the other person (Category - Other pers.)**

Predefined value list

- Other flight crew (The category of the other person was other flight crew.)	1
- Cabin crew (The category of the other person was cabin crew.)	2
- Flight disp/ops officer (The category of the other person was flight dispatcher/operations officer.)	3
- Flight service (The category of the other person was flight service officer.)	4
Flight information service. A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.	
- Instructor (The category of the other person was an instructor.)	9
- Maintenance (The category of the other person was a maintenance engineer.)	6
- MET personnel (The category of the other person was meteorological personnel.)	7
- CAA-related (The category of the other person was CAA-related.)	8
- Student (Student)	10
- Other (The category of the other person was other than one of those listed above.)	98
- Unknown (The category of the other person is not known.)	99

Id: 484 **The gender of the other personnel (Gender- Other pers.)**

Predefined value list

- Female (The other person was a female.)	1
- Male (The other person was a male.)	2
- Unknown (The gender of the other person was not established.)	99

Section: Other personnel licences. (Other persons licences)

This section provides information on validity of licences and ratings of a non-flight crew person involved in the occurrence.

Id: 483 **Other personnel licence rating (Licence rating)**

Predefined value list

Information whether this person held the required rating.
A Rating is an authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence. ICAO Annex 1.

- Held required ratings (The other person held the required ratings on his licence.)	1
- No required ratings (The other person did not hold the required ratings on his licence.)	2
- Not required (The other person was not required to have any rating on his licence.)	97
- Unknown (Whether the other person held the required ratings on his licence was not established.)	99

Id: 481 **Other personnel licence validity (Licence validity - Other p.)**

Predefined value list

The validity of the licence held by this person.

- Valid (The licence of the other person was valid.)	1
- Not valid (The licence of the other person was not valid.)	2
- Not required (The other person was did not require a licence.)	97
- Unknown (The validity of the licence held by the other person is not known.)	99

Section: The identifying information for a flight crew member. (Flight cre

This section provides the identification of the flight crew member by age, gender and position occupied.

Id: 401 **Flight crew age (Age)**

Manual entry

The age of this flight crew member in years.

Id: 402 **Flight crew category (Category)**

Predefined value list

The category of this flight crew member on this flight, e.g. pilot-in-command or co-pilot.

- Pilot-in-command (The person involved was the pilot-in-command.) 4
- Co-pilot (The person involved was the co-pilot.) 1

  Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction. ICAO Annex 1
- Flight engineer (The person involved was the flight engineer.) 3

  The person other than one of the pilots, responsible for the operation and safety of the aircraft systems and engines during flight time.
- Dual student (The person involved was the student undergoing instructions in this aircraft.) 2
- Other (The person involved was a category of flight crew other than one of those listed above.) 98
- Unknown (The category of flight crew of the person involved is not known.) 99

Id: 409 **The gender of this flight crew member (Gender - Crew Member)**

Predefined value list

- Female (The flight crew member involved was a female.) 1
- Male (The flight crew member involved was a male.) 2
- Unknown (The gender of the flight crew member involved was not established.) 99

Topic: Narrative

Section: Narrative. (Narrative)

A short narrative describing the occurrence. Use standardized abbreviations only. Where practicable do not repeat information entered in the coded data. Include all information which is required to convey the scenario of the occurrence to the reader. In particular highlight that information that cannot be included in the coded data.

Id: 424 **The language used by the originator of the narrative (Narrative language)**
Predefined value list

- Bulgarian (The language of the narrative was Bulgarian.)	23
- Bulgarian (The language of the narrative was Bulgarian.)	23
- Bulgarian (The language of the narrative was Bulgarian.)	23
- Bulgarian (The language of the narrative was Bulgarian.)	23
- Bulgarian (The language of the narrative was Bulgarian.)	23
- Czech (The language of the narrative was Czech.)	18
- Czech (The language of the narrative was Czech.)	18
- Czech (The language of the narrative was Czech.)	18
- Czech (The language of the narrative was Czech.)	18
- Czech (The language of the narrative was Czech.)	18
- Danish (The language of the narrative was Danish.)	10
- Danish (The language of the narrative was Danish.)	10
- Danish (The language of the narrative was Danish.)	10
- Danish (The language of the narrative was Danish.)	10
- Danish (The language of the narrative was Danish.)	10
- Dutch (The language of the narrative was Dutch.)	3
- Dutch (The language of the narrative was Dutch.)	3
- Dutch (The language of the narrative was Dutch.)	3
- Dutch (The language of the narrative was Dutch.)	3
- Dutch (The language of the narrative was Dutch.)	3
- English (The language of the narrative was English.)	1
- English (The language of the narrative was English.)	1
- English (The language of the narrative was English.)	1
- English (The language of the narrative was English.)	1
- English (The language of the narrative was English.)	1
- Estonian (The language of the narrative was Estonian.)	14
- Estonian (The language of the narrative was Estonian.)	14
- Estonian (The language of the narrative was Estonian.)	14
- Estonian (The language of the narrative was Estonian.)	14
- Estonian (The language of the narrative was Estonian.)	14
- Finnish (The language of the narrative was Finnish.)	6
- Finnish (The language of the narrative was Finnish.)	6
- Finnish (The language of the narrative was Finnish.)	6
- Finnish (The language of the narrative was Finnish.)	6
- Finnish (The language of the narrative was Finnish.)	6
- French (The language of the narrative was French.)	4
- French (The language of the narrative was French.)	4

- French (The language of the narrative was French.)	4
- French (The language of the narrative was French.)	4
- French (The language of the narrative was French.)	4
- German (The language of the narrative was German.)	2
- German (The language of the narrative was German.)	2
- German (The language of the narrative was German.)	2
- German (The language of the narrative was German.)	2
- German (The language of the narrative was German.)	2
- Greek (The language of the narrative was Greek.)	13
- Greek (The language of the narrative was Greek.)	13
- Greek (The language of the narrative was Greek.)	13
- Greek (The language of the narrative was Greek.)	13
- Greek (The language of the narrative was Greek.)	13
- Hungarian (The language of the narrative was Hungarian.)	19
- Hungarian (The language of the narrative was Hungarian.)	19
- Hungarian (The language of the narrative was Hungarian.)	19
- Hungarian (The language of the narrative was Hungarian.)	19
- Hungarian (The language of the narrative was Hungarian.)	19
- Icelandic (The language of the narrative was Icelandic.)	12
- Icelandic (The language of the narrative was Icelandic.)	12
- Icelandic (The language of the narrative was Icelandic.)	12
- Icelandic (The language of the narrative was Icelandic.)	12
- Icelandic (The language of the narrative was Icelandic.)	12
- Italian (The language of the narrative was Italian.)	5
- Italian (The language of the narrative was Italian.)	5
- Italian (The language of the narrative was Italian.)	5
- Italian (The language of the narrative was Italian.)	5
- Italian (The language of the narrative was Italian.)	5
- Latvian (The language of the narrative was Latvian.)	16
- Latvian (The language of the narrative was Latvian.)	16
- Latvian (The language of the narrative was Latvian.)	16
- Latvian (The language of the narrative was Latvian.)	16
- Latvian (The language of the narrative was Latvian.)	16
- Lithuanian (The language of the narrative was Lithuanian.)	15
- Lithuanian (The language of the narrative was Lithuanian.)	15
- Lithuanian (The language of the narrative was Lithuanian.)	15
- Lithuanian (The language of the narrative was Lithuanian.)	15
- Lithuanian (The language of the narrative was Lithuanian.)	15
- Maltese (The language of the narrative was Maltese.)	22
- Maltese (The language of the narrative was Maltese.)	22
- Maltese (The language of the narrative was Maltese.)	22
- Maltese (The language of the narrative was Maltese.)	22
- Maltese (The language of the narrative was Maltese.)	22
- Norwegian (The language of the narrative was Norwegian.)	11
- Norwegian (The language of the narrative was Norwegian.)	11
- Norwegian (The language of the narrative was Norwegian.)	11
- Norwegian (The language of the narrative was Norwegian.)	11
- Norwegian (The language of the narrative was Norwegian.)	11

- Polish (The language of the narrative was Polish.)	17
- Polish (The language of the narrative was Polish.)	17
- Polish (The language of the narrative was Polish.)	17
- Polish (The language of the narrative was Polish.)	17
- Polish (The language of the narrative was Polish.)	17
- Portuguese (The language of the narrative was Portuguese.)	9
- Portuguese (The language of the narrative was Portuguese.)	9
- Portuguese (The language of the narrative was Portuguese.)	9
- Portuguese (The language of the narrative was Portuguese.)	9
- Portuguese (The language of the narrative was Portuguese.)	9
- Romanian (The language of the narrative was Romanian.)	20
- Romanian (The language of the narrative was Romanian.)	20
- Romanian (The language of the narrative was Romanian.)	20
- Romanian (The language of the narrative was Romanian.)	20
- Romanian (The language of the narrative was Romanian.)	20
- Slovak (The language of the narrative was Slovak.)	25
- Slovak (The language of the narrative was Slovak.)	25
- Slovak (The language of the narrative was Slovak.)	25
- Slovak (The language of the narrative was Slovak.)	25
- Slovak (The language of the narrative was Slovak.)	25
- Slovenian (The language of the narrative was Slovenian.)	24
- Slovenian (The language of the narrative was Slovenian.)	24
- Slovenian (The language of the narrative was Slovenian.)	24
- Slovenian (The language of the narrative was Slovenian.)	24
- Slovenian (The language of the narrative was Slovenian.)	24
- Spanish (The language of the narrative was Spanish.)	8
- Spanish (The language of the narrative was Spanish.)	8
- Spanish (The language of the narrative was Spanish.)	8
- Spanish (The language of the narrative was Spanish.)	8
- Spanish (The language of the narrative was Spanish.)	8
- Swedish (The language of the narrative was Swedish.)	7
- Swedish (The language of the narrative was Swedish.)	7
- Swedish (The language of the narrative was Swedish.)	7
- Swedish (The language of the narrative was Swedish.)	7
- Swedish (The language of the narrative was Swedish.)	7
- Turkish (The language of the narrative was Turkish.)	21
- Turkish (The language of the narrative was Turkish.)	21
- Turkish (The language of the narrative was Turkish.)	21
- Turkish (The language of the narrative was Turkish.)	21
- Turkish (The language of the narrative was Turkish.)	21
- Unknown (The language of the narrative is unknown.)	99
- Unknown (The language of the narrative is unknown.)	99
- Unknown (The language of the narrative is unknown.)	99
- Unknown (The language of the narrative is unknown.)	99
- Unknown (The language of the narrative is unknown.)	99

Id: 425 **The text of the narrative entered by the reporter of the occurrence (Narrative text)**
Manual entry

Topic: Note

Section: Note (Note)

Id: 426 **Note (Note)**
Manual entry

Id: 608 **Subject of the note (Subject)**
Manual entry
Subject of the note.

Topic: Occurrence

Section: Air traffic management relationship to the occurrence. (ATM re

This section records any air traffic management relationship to the occurrence.

Id: 436 **Effect on ATM service (Effect on ATM service)**

Predefined value list

The classification of the event based on the effect it had on the air traffic management service.

- Degraded ATM service (The effect on the air trafic management personnel was to degrade ATM service while still able to function fully.) 4

  An occurrence involving circumstances indicating that a total, serious or partial major inability to provide safe and non degraded ATM Services could have occurred, if the risk had not been managed/controlled by ATS personnel within safety regulatory requirements, even if this implied limitations in the provisions of ATM services.

- Service affect/partial (The effect on the air trafic management personnel was to affect the ability to provide service, moderately.) 3

  An occurrence associated with the sudden and partial inability to provide ATM Services in compliance with applicable safety regulatory requirements. Example: Inability to maintain a safe ATM service within one or more airspace sectors without warning and for a significant period of time. The ATCO's workload increased significantly and he was provided with less information than required for normal operations. Limitations to ATM services were imposed and/or contingency Separation Measures weer applied to compensate for the loss or corrupted function(s) but the risk of infringing safe separation was high and multiple losses of separation did/could have occurred until traffic levels were reduced.

- Service affect/serious (The effect on the air trafic management personnel was to affect the ability to provide service, seriously.) 2

  An occurrence associated with the total and sudden inability to provide ATM Services in compliance with applicable safety regulatory requirements. It involves circumstances indicating that the ability to provide ATM services is severely compromised and has the potential to impact many aircraft safe operations over a significant period of time.

- Inability to prov serv (The effect on the air trafic management personnel was a total inability to provide safe ATM service.) 1

  An occurrence associated with the total inability to provide ATM Services in compliance with applicable safety regulatory requirements, where: - There is a sudden and non managed total loss of ATM service or situation awareness - There is a totally corrupted ATM service or corrupted information provided to ATS personnel. Example: Sudden inability to provide any degree of safe ATM service within several airspace sectors without warning and for a significant period of time. No contingency measure could be applied. ATCO loosing totally its ability to control the situation. Situation has every chance to lead to many accidents/serious incidents

- No effect (No effect) 5
- Not determined (Not determined) 6

Id: 428 **Information on whether and to what extent, in the judgement of the investigators, the air traffic management contributed to the occurrence (ATM contribution)**

Predefined value list

- Directly involved (Air traffic management action was directly involved.) 2

  At least one ATM event or item was in the causal chain of events leading to an accident or incident. Without that ATM event the occurrence would not have happened.

- Indirectly involved (Air traffic management action was indirectly involved.) 3

  No ATM event or item was in the causal chain of events leading to an accident or incident but at least one ATM event had the potential to increase the level of risk or played a role in the occurrence encountered by the aircraft. Without such ATM event, it is considered that the accident or incident might still have happened.

- None (None) 4
- Unknown (The extent of any air traffic management contribution is unknown.) 99

Section: Classification. (Classification)

The classification of the occurrence in terms of its severity, frequency and according to accident/incident types. This information is based on the data at hand and the judgment of the investigator.

Id: 430 Occurrence category (Occurrence category)

Predefined value list

The occurrence category following the "Consequences of future ATM systems for air traffic controller Selection and Training", [CAST] or "International Civil Aviation Organization" [ICAO] accident/incident types.

- ADRM: Aerodrome (Aerodrom design, service, or functionality issues are evident) 24

  Usage Notes:
  · Includes anything associated with a State approved Aerodrome- runways, taxiways, ramp area, parking area, buildings and structures, Crash/Fire/Rescue (CFR) services, obstacles on the Aerodrome property, lighting, markings, signage, procedures, policies, and standards.
  · Examples include closed runways, improperly marked runways, construction interference, lighting failures, signage limitations, etc.
  · Occurrences do not necessarily involve an aircraft.
  · Effects of Aerodrome design are also included here. For example, building layout and architecture which leads to surface wind disruptions would be coded as both ADRM and WS/TRW or TURB as appropriate.

  Includes failures of the winch launch equipment (gliders).

- AMAN: Abrupt maneuvre (The intentional abrupt maneuvering of the aircraft by the flight crew.) 1

  Usage Notes:
  · This category includes the intentional maneuvering of the aircraft to avoid a collision with terrain, objects/obstacles, weather or aircraft (note: the effect of intentional maneuvering is the key consideration).
  · Abrupt maneuvering may also result in a loss of control or system/component failure or malfunction. In this case the event is coded under both categories (e.g., AMAN and LOC-I, AMAN and SCF-NP, or AMAN and SCF-PP).
  · Abrupt maneuvering may also occur on ground, examples include hard braking maneuver, rapid change of direction to avoid collisions etc.

- ARC: Abnormal runway contact (Any landing or takeoff involving abnormal runway or landing surface contact.) 2

  Usage Notes:
  · Events such as hard/heavy landings, long/fast landings, off center landings, crabbed landings, nose wheel first touchdown, tail strikes, and wingtip/nacelle strikes are included in this category.
  · Gear-up landings are also recorded here. However, if a system/component failure or malfunction occurred, which led to the gear up landing, the event is also coded under the appropriate system/component failure or malfunction category.
  · Do not use this category for runway contacts after losing control, e.g. runway contact after take-off.
  · Occurrences, in which the gear collapses during the take-off run or the landing roll are not included here except if a condition in the usage notes above has been met.

  Not to be used in forced landings.
  Not to be used in conjunction with USOS.

  Note: Throughout the definition of occurrence categories the term runway or landing area is taken in its broadest sense and includes runways, landing strips, waterways, designated unimproved landing areas, and landing pads (which may include offshore platforms, building roofs, roads, ships, and fields), or other designated landing areas.

  Note: ARC can be used for helicopter normal hard landings at an off-aerodrome landing site.

  Note: Not to be used for 'normal' off-aerodrome ladings of gliders.

- ATM: ATM/CNS (Air traffic management (ATM) or communications/navigation/surveillance (CNS) service issues are evident.) 25

  Usage Notes:
  · Includes ATC facility/personnel failure/degradation, CNS service failure/degradation, procedures, policies, and standards.
  · Examples include, NAVAID outage, NAVAID service error, controller error, Supervisor error, ATC computer failure, Radar failure, and navigation satellite failure.
  · Occurrences do not necessarily involve an aircraft.

  Note: ATM includes all of the facilities, equipment, personnel, and procedures involved in the provision of State approved Air Traffic Services.

- BIRD: Birdstrike (A collision / near collision with or ingestion of one or several birds) 29

- CABIN: Cabin safety events (Miscellaneous occurrences in the passenger cabin of transport category aircraft) 26

  Usage Notes:
  · Includes significant events related to carry-on baggage, supplemental oxygen, or missing/non-operational cabin emergency equipment.
  · Includes inadvertent deployment of emergency equipment.
  · Includes medical emergency for a person other than a flight crewmember or a medical evacuation patient.
  · Excludes turbulence and other weather related events, which are covered under TURB, ICE, or WSTRW respectively.

  Note: Transport Category Aircraft includes:
  - All jets with 10 or more seats or greater than 12,500 lb Maximum Takeoff Weight.
  - All propeller driven airplanes with greater than 19 seats or greater than 19,000 lb Maximum Takeoff Weight.

- CFIT: Controlled flight into or toward terrain (Inflight collision or near collision with terrain, water, or obstacle without indication of loss of control) 3

  Usage Notes:
  · CFIT is used only for occurrences during airborne phases of flight.
  · CFIT includes collisions with those objects extending above the surface (for example: towers.).
  · CFIT can occur during either Instrument Meteorological Conditions (IMC) or Visual Meteorological Conditions (VMC).
  · Includes instances when the cockpit crew is affected by visual illusions (e.g., black hole approaches) that result in the aircraft being flown under control into terrain, water, or obstacles.
  · If control of the aircraft is lost (induced by crew, weather or equipment failure), do not use this category; use Loss of Control - Inflight (LOC-I) instead.
  · For an occurrence involving intentional low altitude operations (e.g., crop dusting) use the Low Altitude Operations (LALT) code instead of CFIT.
  · Do not use this category for occurrences involving intentional flight into/toward terrain. Code all suicides under Security Related (SEC) events.
  · Do not use this category for occurrences involving runway undershoot/overshoot, which are classified as Undershoot/Overshoot (USOS).

- CTOL: Collisions with obstacle(s) during take-off/landing (Collision with obstacle(s), during take-off or landing whilst airborne.) 102

  Usage Notes:
  • To be used only in cases where the crew was aware of the true location of the obstacle, but its clearance from the aircraft flightpath was inadequate.
  • Includes contact with obstacles, such as vegetation, trees and walls, snow drifts, power cables, telegraph wires and antennae, offshore platforms, maritime vessels and structures, land structures and buildings.
  • Includes collisions during take-off to and landing from the hover.
  • Includes water obstacles during take-off from water (e.g. waves, dead-heads, ships, swimmers).
  • Not to be used for occurrences classified under CFIT, LOC-I or SCF-PP.

- EXTL: External load occurrences (Occurrences during or as a result of external load or external cargo operations.) 101

  Usage Notes:
  • Includes cases where external load or the load lifting equipment used (e.g. long line, cable) contacts terrain, water surface or objects.
  • Includes cases where the load or, in the absence of a load, the load lifting equipment strikes or becomes entangled with the main rotor, tail rotor, or the helicopter fuselage.
  • Includes injuries to ground crew handling external loads as result of contact with/dropping/inadvertent release of external load.
  • Includes ground injuries to ground crew handling external loads due to the downwash effect or falling branch, trees etc.
  • Includes external hoist, human external cargo, long lines.
  • If the preparation of the external load by ground crew played a role, also code under RAMP.
  • Failures or malfunctions of the onboard external load handling lifting equipment or release systems should be coded under SCF-NP, as these are considered to be aircraft systems.

- EVAC: Evacuation (An air carrier occurrence where either (a) person(s) are seriously or fatally injured during an evacuation, or (b) an unnecessary evacuation was performed.) 4

  Usage Notes:
  · Includes cases where an injury(ies) was(were) sustained during the evacuation through an emergency exit or main cabin door.
  · Includes cases where the evacuation itself is the accident (in essence, had there not been an evacuation there would not have been an accident).
  · An unnecessary evacuation is one that was either erroneously commanded by the crew or uncommanded.
  · Only used for passenger carrying operations involving transport category aircraft.

- F-NI: Fire/smoke (non-impact) (Fire or smoke in or on the aircraft, in flight or on the ground, which is not the result of impact.) 5

  Usage Notes:
  · Includes fire due to a combustive explosion from an accidental ignition source.
  · Includes fire and smoke from system/component failures/malfunctions in the cockpit, passenger cabin, or cargo area.
  ·Non-combustive explosions such as tire burst and pressure bulkhead failures are coded under System/Component Failure - Non-Powerplant (SCF-NP).
  · Fire/Smoke resulting from an accident impact is coded under Fire/Smoke (post-impact) (F-POST).

- F-POST: Fire/smoke (post-impact) (Fire/Smoke resulting from impact.) 6

  Usage Notes:
  · This category is only used for occurrences where post impact fire was a factor in the outcome.
  · This category is only used in conjunction with another category. For example: a system/component failure that also results in a post-impact fire will be coded as SCF-PP and F-POST or SCF-NP and F-POST.

- FUEL: Fuel related (One or more powerplants experienced reduced or no power output due to fuel exhaustion, fuel starvation/mismanagement, fuel contamination/wrong fuel, or carburetor and/or induction icing.) 7

  Usage Notes:
  ·The following fuel related definitions are provided for clarity:
  - Exhaustion: No usable fuel remains on the aircraft.
  - Starvation/mismanagement: Usable fuel remains on the aircraft, but it is not available to the engines.
  - Contamination: Any foreign substance (for example: water, oil, dirt, sand, bugs) in the correct type of fuel for the given powerplant(s).
  - Wrong fuel: Fuel supplied to the powerplant(s) is incorrect, for example: Jet A into a piston powerplant, 80 octane into a powerplant requiring 100 octane.
  - Includes cockpit crew or ground crew-induced fuel-related problems that are not the result of mechanical failures. Interruptions of the fuel supply caused by mechanical failures are coded elsewhere as non-powerplant or powerplant system/component failures (SCF-NP or SCF-PP), as appropriate.
  - Also used when the wrong fuel causes a powerplant failure (e.g., through detonation). In this case it should be coded as FUEL, not as a system/component failure or malfunction- powerplant (SCF-PP).

- GCOL: Ground Collision (Collision while taxiing to or from a runway in use.) 9

  Usage Notes:
  · Includes collisions with an aircraft, person, animal, ground vehicle, obstacle, building, structure, etc. while on a surface other than the runway used for landing or intended for takeoff.
  · Ground collisions resulting from events categorized under Runway Incursion (RI) or Ground Handling (RAMP) are excluded from this category.

  Note: Taxiing includes air taxiing for rotorcraft.

- GTOW: Glider towing related events (Premature release, inadvertent release or non-release during towing, entangling with towing, cable, loss of control, or impact into towing aircraft / winch.) 104

  Usage Notes:
  • Applicable both to aircraft under tow by winch or by another aircraft or to aircraft executing towing.
  • To be used in events only after reaching airborne phase.
  • Includes loss of control because of entering the towing aircraft wake turbulence and events where of airspeed is out of limits during tow.

- ICE: Icing (Accumulation of snow, ice, freezing rain, or frost on aircraft surfaces that adversely affects aircraft control or performance.) 10

  Usage Notes:
  · Includes accumulations that occur inflight or on the ground (i.e., deicing-related).
  · Carburetor and induction icing events are coded in the FUEL Related (FUEL) category.
  · Windscreen icing which restricts visibility is also covered here.
  · Includes ice accumulation on sensors, antennae, and other external surfaces.

- LALT: Low altitude operations (Collision or near collision with obstacles/objects/terrain while intentionally operating near the surface (excludes takeoff or landing phases).) 11

  Usage Notes:
  · 'Terrain' includes: water, vegetation, rocks, and other natural elements laying, on or growing out of, the earth.
  · Includes ostentatious display, low flying, aerobatics, sight seeing, demonstration flights, aerial inspection, aerial application, and scud running (ducking under low visibility conditions).
  · Also includes flying in close proximity to mountains, into box canyons, and similar flights where the aircraft aerodynamic capability is not sufficient to avoid impact.
  · If there is a loss of control during low altitude operations, both loss of control - inflight (LOC-I) and LALT are coded.

  Do not use LALT in conjunction with CFIT.

- LOC-G: Loss of control - ground (Loss of aircraft control while the aircraft is on the ground) 12

  Usage Notes:
  · Used only for non-airborne phases of flight, i.e., ground/surface operations.
  · The loss of control may result from a contaminated runway or taxiway (e.g., rain, snow, ice, slush).
  · The loss of control during ground operations can occur as the result of other occurrence categories as well. For example, LOC-G may result from a system/component failure or malfunction to the powerplant (SCF-PP) or non-powerplant (SCF-NP), or from evasive action taken during a Runway Incursion (RI-VA, or RI-O). For these occurrences, the event is coded under both categories (e.g., LOC-G and SCF-PP, LOC-G and SCF-NP, or LOC-G and RI-VA or RI-O).
  · Do not use when a mechanical failure rendered the aircraft uncontrollable.
  · Rotorcraft dynamic rollover and ground resonance events are also included here.

- LOC-I: Loss of control - inflight (Loss of aircraft control while inflight.) 13

  Usage Notes:
  · Used only for airborne phases of flight where aircraft control was lost.
  · Loss of control can occur during either Instrument Meteorological Conditions (IMC) or Visual Meteorological Conditions (VMC).
  · The loss of control during flight may occur as a result of a deliberate maneuver (e.g., stall/spin practice).
  · Occurrences involving configuring the aircraft (e.g., flaps, slats, on-board systems, etc) are included here.
  · Stalls are considered loss of control and are included here.
  · Rotorcraft occurrences which involve power settling, or settling with power to ground contact are coded here and also as ARC.
  · Rotorcraft External Load operations involving loss of control related to the external load are also coded here
  · For icing-related events, which are also loss of control, code both LOC-I and ICE).
  · If the loss of control is a direct result of a system/component failure or malfunction (SCF), code the occurrence as an SCF-NP, or SCF-PP only. However, loss of control may follow less severe system/component failures, and in this case, code both categories.
  · Cockpit crew vision-related events (for example, black hole approach events or whiteout events), where the aircraft is flown under control into terrain, water, or obstacles, are coded under CFIT, not LOC-I.

- LOLI: Loss of lifting conditions en-route (Landing en-route due to loss of lifting conditions (glider)) 103

  Usage Notes:
  • Applicable only to aircraft that rely on static lift to maintain or increase flight altitude, namely sailplanes, gliders, hang gliders and paragliders, balloons and airships.
  • All static lift forms to be considered, including atmospheric lift, namely from Orographic, Thermal, Mountain Wave and Convergence Zone, and buoyancy lift namely from lighter than air gas or hot air.
  • Also include motorglider and paramotor aircraft if operating under static atmospheric lift conditions and the engine could not be started.
  • If the aircraft was flying intentionally at low height above the terrain, use LALT instead (typical cases occur with gliders in competition flying).

- MAC: AIRPROX/near miss/midair collision (AIRPROX/loss of separation/near miss/midair collision) 14

  Usage Notes:
  · Includes all collisions between aircraft while both aircraft are airborne.
  · Both air traffic control and cockpit crew separation-related occurrences are included.
  · To be used for AIRPROX reports.
  · Genuine TCAS alerts are included here.

- RAMP: Ground Handling (Occurrences during (or as a result of) ground handling operations.) 8

  Usage Notes:
  · Includes collisions that occur while servicing, boarding, loading, and deplaning the aircraft.
  · Includes propeller/rotor/fan blade strikes.
  · Includes pushback/powerback/towing events.
  · Includes Jet Blast and Prop/rotor wash ground handling occurrences.
  · Includes aircraft external preflight configuration errors (examples: improper loading and improperly secured doors and latches) that lead to subsequent events.
  · Includes all parking areas (ramp, gate, tiedowns).
  · Except for powerback events, which are coded here, if a collision occurs while the aircraft is moving under its own power in the gate, ramp, or tiedown area, code it as a ground collision (GCOL).

- RE: Runway excursion (A veer off or overrun off the runway surface) 15

  Usage Notes:
  · Only applicable during either the takeoff or landing phase.
  · The excursion may be intentional or unintentional. For example, the deliberate veer off to avoid a collision, brought about by a Runway Incursion. In this case, code both categories.
  · Use RE in all cases where the a/c left the runway regardless of whether the excursion was the consequence of another event or not.

- RI-A: Runway incursion - animal (Collision with, risk of collision, or evasive action taken by an aircraft to avoid an animal on a runway in use.) 27

  Usage Notes:
  · Includes encounters with wildlife (other than birdstrikes which are coded as OTHER) on a runway in use.
  · Includes instances where evasive action is taken by the cockpit crew that leads to a collision off the runway or to consequences other than a collision (e.g., gear collapsing).
  · Runway incursions may occur at controlled or uncontrolled airports.

- RI-VAP:Runway incursion - vehicle, a/c or person (Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.
) 28

  Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.

  Note: From Procedures for Air Navigation Services - Air traffic Management (ICAO DOC 4444), included in April 2004.

- RI-O: Runway incursion - other (Collision with, risk of collision, or evasive action taken by an aircraft to avoid, a person or animal on a runway in use.) 16

  Usage Notes:
  · Includes encounters with wildlife (other than birdstrikes which are coded as OTHER) on a runway in use.
  · Includes instances where evasive action is taken by the cockpit crew that leads to a collision off the runway or to consequences other than a collision (e.g., gear collapsing).
  · Runway incursions may occur at controlled or uncontrolled airports.

  Note: Changed as result of ICAO ANC decision to RI-A (taking out the person).

- RI-VA: Rwy incursion-vehicle or a/c (Collision with, risk of collision, or evasive action taken by an aircraft to avoid, a vehicle or other aircraft on a runway in use.) 17

  Usage Notes:
  · Includes instances where evasive action is taken by the cockpit crew to avoid a collision that leads to a later collision off the runway or, to consequences other than a collision (e.g., gear collapsing).
  · Includes occurrences where an airborne aircraft lands on an aircraft stopped or moving on a runway in use.
  · Runway incursions may occur at controlled or uncontrolled airports.

  Note: Changed to RI-VAP as result of ICAO Air Navigation Commission decision in 2004.

- SCF-NP: System/component failure or malfunction [non-powerplant] (Failure or malfunction of an aircraft system or component - other than the powerplant.) 18

  Usage Notes:
  · If the failure renders the aircraft uncontrollable it is coded as SCF-NP only, not as loss of control (LOC-I or LOC-G). However, if the failure does not render the aircraft uncontrollable, but leads to a loss of control, code the event under both SCF-NP and LOC-I or LOC-G, as appropriate.
  · Rotorcraft cyclic, collective, and tail rotor drive and control system failures/malfunctions are also coded here.
  · Includes errors or failures in software and database systems.
  · Includes non-powerplant parts or pieces separating from an aircraft.
  · Includes all failures/malfunctions, including those related to or caused by maintenance issues.

- SCF-PP: powerplant failure or malfunction (Failure or malfunction of an aircraft system or component - powerplant.) 19

  Usage Notes:
  · If the failure renders the aircraft uncontrollable it is coded as SCF-PP only, not as loss of control (LOC-I or LOC-G). However, if the failure does not render the aircraft uncontrollable, but leads to a loss of control, code the event under both SCF-PP and LOC-I or LOC-G, as appropriate.
  · Includes failures or malfunctions of any of the following: propellers, rotors, propeller/main rotor drive train, reversers, and powerplant controls.
  · Includes powerplant parts or pieces separating from a powerplant including the cowling.
  · Includes all failures/malfunctions, including those related to or caused by maintenance issues.
  · Rotorcraft cyclic, collective and tail rotor drive and control failures or malfunctions are coded as non-powerplant failures (SCF-NP), not SCF-PP.
  · The following fuel-related powerplant problems are coded under the category FUEL, not under the category SCF-PP: fuel exhaustion; fuel starvation/mismanagement; fuel contamination; wrong fuel; carburetor and induction icing.

- SEC: Security related (Criminal/Security acts which result in accidents or incidents (per the International Civil Aviation Organization [ICAO] Annex 13).) 20

  Usage Notes:
  · While security related acts can lead to accidents as defined as by ICAO Annex 13, they are not considered accidents by some organizations. Regardless, these events have similar consequences in that they result in serious injury or death to person(s) and/or substantial damage to the aircraft. For these reasons, they are categorized as security-related occurrences for prevention purposes only.
  · Examples include: a) hijacking and/or aircraft theft; b) interference with a crewmember (e.g., unruly passengers); c) flight control interference; d) ramp/runway/taxiway security; e) sabotage; f) suicide; and g) acts of war.

- TURB: turbulence encounter (In-flight turbulence encounter) 21

  Usage Notes:
  · Includes encounters with turbulence in clear air, mountain wave, mechanical, and/or cloud associated turbulence.
  · Wake vortex encounters are also included here.
  · Flights into windshear or thunderstorm related turbulence are coded as WSTRW.

- UIMC: Unintended flight in IMC (UNINTENDED FLIGHT IN Instrument Meteorological Conditions (IMC)) 100

  Usage Notes:
  • May be used as a precursor to CFIT, LOC-I or LALT.
  • Applicable if the pilot was flying according to Visual Flight Rules (VFR), as defined in Annex 2 – Rules of the Air – to the Convention on International Civil Aviation and by any reason found oneself inadvertently in IMC
  • Only to be used when loss of visual references is encountered,
  • Only to be used if pilot not qualified to fly in IMC and/or aircraft not equipped to fly in IMC

- USOS: Undershoot/overshoot (A touchdown off the runway surface.) 22

  Usage Notes:
  · An undershoot/overshoot of the runway occurs in close proximity to the runway and also includes offside touchdowns and any occurrence where the landing gear touches off the runway surface.
  · Off-airport emergency landings are excluded from this category.
  · To be used for occurrences during the landing phase.

  Do not use ARC in conjunction with USOS.

- WSTRW: Windshear or thunderstorm. (Flight into windshear or thunderstorm.) 23

  Usage Notes:
  · Includes flight into windshear and/or thunderstorm related weather ONLY.
  · Includes inflight events related to hail.
  · Includes events related to heavy rain (not just in a thunderstorm).
  · Icing and turbulence encounters are coded separately (see ICE and TURB).

- OTHR: Other (Any occurrence not covered under another category.) 98

  This category includes any occurrence type that is not covered by any other category.

- UNK: Unknown or undetermined (Insufficient information exists to categorize the occurrence.) 99

  Usage Notes:
  · Includes cases where the aircraft is missing.
  · Includes those occurrences where there is not enough information at hand to classify the occurrence or where additional information is expected in due course to better classify the occurrence.

Id: 431 Occurrence class (Occurrence class)

Predefined value list : values from table [V4 CD Occurrence Classes]

The classification of the occurrence in relation to its severity.

Section: Filing information. (Filing information)

To enter file reference information.

Id: 437 **Date entered (Date entered)**
Manual entry
The date the report was entered. This date is formatted according to the system short date format.

Id: 601 **Headline (Headline)**
Manual entry
A short message identifying the accident to the human reader.

Id: 452 **The file number allocated by the State providing the report (State file number)**
Manual entry

Id: 453 **The identification of the State that supplied the report (State reporting)**
Predefined value list : values from table [V4 CD States]

Id: 447 **The name of the organization that is responsible for the report (Reporting org.)**
Predefined value list : values from table [V4 CD Organisations]

Section: Injury totals. (Injury totals)

The section provides an overview of the total number of persons involved in the occurrence and their respective injuries. These numbers are the sum of the persons on the aircraft involved plus the number of persons on ground which were involved in the occurrence.

Id: 464 **The total number of persons of unknown category involved in the occurrence (Total involved-unknown)**

Manual entry

The total number of persons of unknown category involved in the occurrence

---

Id: 458 **Total fatal injuries (Total fatalities)**

Manual entry

The total number of fatal injuries sustained in the occurrence. This is the sum of fatal injuries on the ground plus the fatal injuries sustained on all of the aircraft involved.

Id: 459 **Total fatal injuries on aircraft (Total fatalities, a/c)**

Manual entry

This is the sum of fatal injuries sustained on all of the aircraft involved.

Id: 460 **Total fatal injuries on ground (Total fatalities, grd)**

Manual entry

The total number of fatal injuries sustained by persons on the ground.

Id: 465 **Total injuries unknown on aircraft (Total injuries-unk, a/c)**

Manual entry

The total number of persons with unknown injuries on board of aircraft involved in the occurrence.

Id: 466 **Total injuries unknown on ground (Total injuries-unk, ground)**

Manual entry

The total number of persons with unknown injuries on ground involved in the occurrence.

Id: 462 **Total involved on aircraft (Total involved-aircraft)**

Manual entry

The total number of persons on board the aircraft involved in the occurrence.

Id: 463 **Total involved on ground (Total involved-ground)**

Manual entry

The total number of persons involved on the ground. Note: for the ground this is the total number that sustained any injury in the occurrence as the total number of non-inured persons cannot be determined.

Id: 467 **Total minor injuries (Total minor injuries)**

Manual entry

The total number of persons with minor injuries involved in the occurrence.

Id: 468 **Total minor injuries on aircraft (Total minor injuries-a/c)**

Manual entry

The total number of persons with minor injuries on board the aircraft involved in the occurrence.

Id: 469 **Total minor injuries on ground (Total minor injuries-grd)**

Manual entry

The total number of persons on ground involved in the occurrence with minor injuries.

Id: 461 **Total number of the persons involved in the occurrence (Total involved)**

Manual entry

Id: 470 **Total serious injuries (Total serious injuries)**

Manual entry

The total number of persons sustaining serious injuries in the occurrence.

A serious injury is an injury sustained by a person in an accident and which: a) requires hospitalization for more than 48 hours, commencing within 48 hours from the date when the injury was received; or b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose or; c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or d) involves injury to any internal organ; or e) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface; or f) involves verified exposure to infectious substances or injurious radiation.

Id: 471 **Total serious injuries on aircraft (Total ser injuries-a/c)**

Manual entry

The total number of persons sustaining serious injuries on the aircraft.

A serious injury is an injury sustained by a person in an accident and which: a) requires hospitalization for more than 48 hours, commencing within 48 hours from the date when the injury was received; or b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose or; c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or d) involves injury to any internal organ; or e) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface; or f) involves verified exposure to infectious substances or injurious radiation.

Id: 472 **Total serious injuries on ground (Total ser injuries-ground)**

Manual entry

The total number of persons sustaining serious injuries on the ground.

A serious injury is an injury sustained by a person in an accident and which: a) requires hospitalization for more than 48 hours, commencing within 48 hours from the date when the injury was received; or b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose or; c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or d) involves injury to any internal organ; or e) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface; or f) involves verified exposure to infectious substances or injurious radiation.

Id: 473 **Total without injuries (Total no injuries)**

Manual entry

The total number of persons involved in the occurrence who did not sustain any injury. N.B. This is the total of the persons on board of aircraft only as the number of persons on ground that were not injured is not included.

Id: 474 **Total without injuries on aircraft (Total no injuries-aircraft)**

Manual entry

The total number of persons on board aircraft involved in the occurrence who did not sustain any injury.

Id: 475 **Total without injuries on ground (Total no injuries-ground)**

Manual entry

Note: This number is not collected as the total number of persons on the ground cannot be established.

Section: Severity. (Severity)

Description of the severity of the occurrence in terms of the injuries to persons and the damage to the aircraft and other damage involved.

Id: 448 **Damage on aerodrome (Damage aerodrome)**

Predefined value list

Third party property damage (i.e. damage not to the aircraft) on the aerodrome.

- None (There was no damage to the aerodrome.) 97
- Minor (The damage to the aerodrome was minor.) 2
- Substantial (The damage to the aerodrome was substantial.) 1
- Unknown (The damage to the aerodrome is not known.) 99

Id: 432 **Damage severity level (Damage aircraft)**

Predefined value list

The highest level of damage sustained by any aircraft involved in the occurrence

- Destroyed (The aircraft was destroyed in the accident.) 1

  The damage sustained makes it inadvisable to restore the aircraft to an airworthy condition.
  Note: This differs from the definition of a hull loss which reads: The aircraft is damaged beyond economical repair. A determination of "Hull loss" is thus not the result of a technical evaluation but may result from economic considerations.

- Substantial (The aircraft sustained substantial damage in the accident.) 2

  The aircraft sustained damage or structural failure which:
  - adversely affected the structural strength, performance or flight characteristics of the aircraft and
  - would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin. ICAO Annex 13.
  Major repair: a repair
  - (1) That, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or
  - (2) That is not done according to accepted practices or cannot be done by elementary operations.

- Minor (The aircraft sustained minor damage in the occurrence.) 3

  Minor damage: The aircraft can be rendered airworthy by simple repairs or replacement and an extensive inspection is not necessary.

- None (The aircraft sustained no damage in the occurrence.) 98
- Unknown (The extent of the damage that the aircraft sustained in the occurrence is not known.) 99

Id: 451 **Injury severity level (Injury level)**

Predefined value list

The highest level of injury sustained by any person in the occurrence.

- Fatal (The highest level of injury was fatal.) 1

  For statistical purposes "Fatal" is death from an injury received in the occurrence which occurs within 30 days of the accident. ICAO Annex 13.

- Serious (The highest level of injury was serious.) 2

  A serious injury is an injury sustained by a person in an accident and which:
  a) requires hospitalization for more than 48 hours, commencing within 48 hours from the date when the injury was received; or
  b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose or;
  c) involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or
  d) involves injury to any internal organ; or
  e) involves second or third degree burns, or any burns affecting more than 5 percent of te body surface; or
  f) involves verified exposure to infectious substances or injurious radiation.

- Minor (The highest level of injury was minor.) 3

- None (No injuries occurred.) 98
- Unknown (The highest level of injury sustained is not known.) 99

Id: 456 Third party damage (Third party damage)

Predefined value list

Any property damage sustained by third parties, i.e. not to the aircraft involved, on the ground.

- Yes (Some third party damage occurred.) 1
- No (No third party damage occurred.) 2
- Unknown (The extent of the third party damage is not known.) 99

Section: When (When)

The coordinates of the occurrence in time.

Id: 433 **Local date (Local date)**

Manual entry

The local date of the occurrence. This date is formatted according to the system short date format.

Id: 457 **Local time (Local time)**

Manual entry

The local time of the occurrence time entered using the 24 hour clock e.g. 23:59.

Id: 477 **UTC date of the occurrence (UTC date)**

Manual entry

UTC: Time scale based on the second (SI), as defined and recommended by the CCIR, and maintained by the Bureau International des Poids et Mesures (BIPM). For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.

The UTC date entered in the format which depends on the local installation. Use yyyy-mm-dd otherwise.

Id: 478 **UTC time (UTC time)**

Manual entry

The UTC time of the occurrence entered using the 24 hour clock e.g. 23:59. UTC: Time scale based on the second (SI), as defined and recommended by the CCIR, and maintained by the Bureau International des Poids et Mesures (BIPM). For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.

Section: Where (Where)

The coordinates of the occurrence in space.

Id: 439 **Latitude of occurrence (Latitude of occ)**

Manual entry

Latitude of the place of the occurrence in degrees and minutes.

Id: 440 **Location of occurrence (Location of occ)**

Manual entry

Location of occurrence - the name of the closest settled area or geographical feature.

Id: 444 **Longitude of occurrence (Longitude of occ)**

Manual entry

Longitude of the place of the occurrence in degrees and minutes.

Id: 454 **State or area of occurrence (State/area of occurrence)**

Predefined value list : values from table [V4 CD States]

The identification of the State or geographical area where the occurrence occurred. N.B. the designation employed for States and geographical areas do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city, area or of its authorities, or concerning the delineation of its frontiers and boundaries.

Topic: Recommendations

Section: Potential factors and safety issues. (Potential Factor and safet

This section provides information on any potential factors and safety issues which were revealed during the investigation of the occurrence irrespective of whether they were related to the occurrence.

Id: 487 **Potential descriptive factor modifier (Descr factor-modifier)**

Predefined value list : values from table [V4 CD Modifiers]

Modifiers provide information on the nature of the involvement of the subject to which they relate.

Id: 488 **Potential descriptive factors (Descriptive Factor)**

Predefined value list : values from table [V4 CD Descriptive Factors]

Potential descriptive factors/safety issues: Use this field to report on safety issues or potential safety issues that relate to the occurrence irrespective whether these issues were causal or contributory to the occurrence.

Id: 491 **Potential explanatory factor - subject (Expl Factor-subject)**

Predefined value list : values from table [V4 CD Explanatory Factors]

The area of concern or subject described in the potential explanatory factor.

Id: 489 **Potential explanatory factor modifier (Expl factor modifier)**

Predefined value list : values from table [V4 CD Modifiers]

Modifiers provide information on the nature of the involvement of the subject to which they relate.

Id: 490 **Potential explanatory factor: organization person (Organization/person)**

Predefined value list : values from table [V4 CD Organisations Persons]

The person or organization to which the potential explanatory factor relates.

Section: Recommendations. (Recommendations)

This section provides general information on the deficiencies covered by safety recommendations made in conjunction with the occurrence.

Id: 427 **The area of concern covered by the safety recommendation (Recommendations)**
Predefined value list : values from table [V4 CD Recommendations]

Topic: Runway

Section: Runway description. (Runway description)

Description of the runway in use by this aircraft.

Id: 500 **LDA: Landing distance available (LDA)**

Manual entry

LDA: The length of runway which is declared available and suitable for the ground run of an aeroplane landing. ICAO Annexes 6 and 14.

Id: 502 **Runway category (Runway category)**

Predefined value list

The precision approach category for which this runway is equipped.

- Non-prec approach runway (The runway involved was a non-precision approach runway.) 2
- Non-instrument runway (The runway involved was a non-instrument runway.) 1
- Prec approach cat I (The runway involved was a - precision approach category I.) 4

  The runway was approved for a precision instrument approach and landing with a decision height not lower than 60 m (200 ft) and with either a visibility not less than 800 m or an RVR not less than 550 m.
- Prec approach cat II (The runway involved was a - precision approach category II.) 5

  The runway was approved for a precision instrument approach and landing with a decision height lower than 60 m (200 ft) but not lower than 30 m (100 ft) and an RVR not less than 350 m.
- Prec approach cat III a (The runway involved was a - precision approach category III a.) 6

  The runway was approved for a precision instrument approach and landing with a decision height lower than 30 m (100 ft) or no decision height and an RVR not less than 200 m.
- Prec approach cat III b (The runway involved was a - precision approach category III b.) 7

  The runway was approved for a precision instrument approach and landing with a decision height lower than 15 m (50 ft) or no decision height and an RVR of less than 200 m but not less than 50m.
- Prec approach cat III c (The runway involved was a - precision approach category III c.) 8

  The runway was approved for a precision instrument approach and landing with no decision height lower than 15 m (50 ft) or no decision height and no RVR limitations.
- Prec approach cat unknown (The runway involved was a - precision approach runway category unknown.) 3
- Unknown (The runway approach category is not known.) 99

Id: 503 **Runway configuration (Runway configuration)**

Predefined value list

The configuration of the runway used by this aircraft.

- Single (The runway configuration on the aerodrome was - single runway.) 1
- Dependent parallel (The runway configuration on the aerodrome was - dependent parallel runways.) 3
- Independent parallel (The runway configuration on the aerodrome was - independent parallel runways.) 4
- Crossing (The runway configuration on the aerodrome was - crossing runways.) 2
- Other (The runway configuration on the aerodrome was other than those listed above.) 98
- Unknown (The runway configuration on the aerodrome is not known) 99

Id: 506 **Runway slope (Runway slope)**

Predefined value list

Information on the slope of the runway.

- Level (The runway was level.) 3
- Down (The runway sloped downwards.) 2
- Up (The runway sloped upwards.) 1

- Down-up (The runway sloped down then up.) 5
- Up-down (The runway sloped up then down.) 4
- Unknown (The slope of the runway is not known.) 99

Id: 513 **Runway width (Runway width)**

Manual entry

The width of a runway expressed in metres.
Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Id: 507 **Stopway length (Stopway length)**

Manual entry

A stopway is a defined rectangular area on the ground at the end of take-off run available prepared as a suitable area on which an aircraft can be stopped in the case of an abandoned take-off. ICAO Annex 4.Doc 4444

Id: 510 **Take-off distance available (TODA)**

Manual entry

The length of the take-off run available plus the length of any clearway.

Id: 511 **Take-off run available (TORA)**

Manual entry

The length of runway declared available and suitable for the ground run of an aeroplane taking off.

Id: 499 **The identifier of a runway (Runway identifier)**

Manual entry

A runway identifier consists of a two-digit number and on parallel runways is supplemented by a letter. On a single runway, dual parallel runways and triple parallel runways the two-digit number shall be the whole number nearest the one-tenth of the magnetic North when viewed from the direction of approach. On four or more parallel runways, one set of adjacent runways shall be numbered to the nearest one tenth magnetic azimuth and the other set of adjacent runways to the next nearest one-tenth magnetic azimuth. When the above rule results in a single digit number it is preceded by a zero. In the case of parallel runways, each runway designation number is supplemented by a letter as follows, in the order shown from left to right when viewed from the direction of approach: For two parallel runways: "L" "R"; for three parallel runways: "L" "C" "R"; for four parallel runways: "L" "R" "L" "R"; for five parallel runways: "L" "C" "R" "L" "R"; or "L" "R" "L" "C" "R" and for six parallel runways: "L" "C" "R" "L" "C" "R". Annex 14.

Id: 501 **The length of the runway expressed in metres (Runway length)**

Manual entry

Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Section: Runway surface. (Runway surface)

Description of the surface of the runway used by this aircraft. This includes information on the type of surface as well as on information related to runway contamination and braking action.

Id: 504 **Runway surface contamination (Contamination)**

Predefined value list

Information on the presence of runway surface contaminations.

- Ice (The runway surface was contaminated by ice.) 3
- Oil (The runway surface was contaminated by oil.) 5
- Slush (The runway surface was contaminated by slush.) 2

  The runway surface was contaminated by water-saturated snow.
  Slush. Water-saturated snow which with a heel-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8. (ICAO Annex 14)
- Snow (The runway surface was contaminated by snow.) 4

  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.

  Snow (on the ground): Dry snow can be blown if loose or, if compacted by hand, will fall apart again upon release. Wet snow if compacted by hand, will stick together and tend to or form a snowball. Compacted snow has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up.
- Water (The runway surface was contaminated by water.) 1
- None (None) 6

  There was no runway contamination.
- Other (The runway surface was contaminated by a substance other than those listed above.) 98
- Unknown (The type of contamination on the runway surface was not established.) 99

Id: 512 **Runway surface preparation type (Preparation type)**

Predefined value list

The type of preparation that was applied to the runway, e.g. whether it was fully grooved or partially grooved.

- Prepared (The runway surface was prepared.) 1
- Unprepared (The runway surface was unprepared.) 2
- Unknown (Whether the runway surface was prepared is not known.) 99

Id: 508 **Runway surface treatment (Surface treatment)**

Predefined value list

This provides information on the type of treatment of the surface of the runway, e.g. whether it was fully grooved or partially grooved.

- Fully grooved (The runway surface was fully grooved.) 2
- Partially grooved (The runway surface was partially grooved.) 1
- Other (The runway surface treatment was other than grooving.) 98
- Unknown (The type of runway surface treatment is not known.) 99

Id: 509 **Runway surface type (Surface type)**

Predefined value list

This provides information on the type of surface in the take-off/landing area.

- Asphalt (The runway surface was asphalt.) 2
- Concrete (The runway surface was concrete.) 1

- Grass (The runway surface was grass.) 4
- Gravel/dirt (The runway surface was gravel/dirt.) 3
- Ice (The runway surface was ice.) 5
- Snow (The runway surface was snow.) 6

  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.
  Snow (on the ground): Dry snow can be blown if loose or, if compacted by hand, will fall apart again upon release. Wet snow if compacted by hand, will stick together and tend to or form a snowball. Compacted snow has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up.
  Snow should be differentiated from ice.
- Other (The runway surface was other than listed above.) 98
- Unknown (The runway surface type was not established.) 99

Id: 498 The braking action measured or estimated of the runway (Braking action)

Predefined value list

- Good (The runway braking action was good.) 1

  The runway braking action friction coefficient was 0.4 or above.
- Medium (The runway braking action was medium.) 2

  The runway braking action friction coefficient was 0.26 to 0.39.
- Poor (The runway braking action was poor.) 3

  The runway braking action friction coefficient was 0.25 or below but measurable.
- Nil (The runway braking action was nil.) 4
- Unknown (The runway braking action is not known.) 99

Id: 497 The method by which the runway braking action was determined / estimated (Braking determined by)

Predefined value list

- Measurement (The runway braking action was determined by measurement.) 1
- Estimate & pilot report (The runway braking action was determined by estimation (including a pilot report).) 2
- Not determined (The extent of the runway braking action was not determined.) 3
- Unknown (The means by which the extent of the runway braking action was determined is not known.) 99

Section: Take-off or landing on water. (T/O or landing on water)

This section provides information on water conditions, water obstructions and wave height/direction in relation to landings on water. This includes landings at water aerodromes.

Id: 136 **Landing/take-off heading related to swell (Rel. direction, swell)**

Predefined value list

For landing on water. Landing/take-off heading related to swell, e.g. across, along, diagonally across or no swell.

- Across (The landing/take-off direction was across the swell.) 2
- Along (The landing/take-off direction was along the swell.) 1
- Diagonal (The landing/take-off direction was at a diagonal to the swell.) 3
- No swell (There was no swell during the landing/take-off.) 98
- Unknown (The relationship between the landing/take-off heading and the swell is unknown.) 99

Id: 212 **Obstructions for water occurrences (Obstructions water)**

Predefined value list

To be used only for occurrences involving take-off from, or landing on, water. Information on obstructions present on the water, e.g. boats, buoys, piles/markers, sandbar/shoal or submerged objects/deadheads.

- Boats (Obstructions involved in the water occurrence were boats.) 1
- Buoys (Obstructions involved in the water occurrence were buoys.) 2
- Piles/markers (Obstructions involved in the water occurrence were piles/markers.) 3
- Sandbar/shoal (Obstructions involved in the water occurrence were sandbars/shoals.) 4
- Submerged object (Obstructions involved in the water occurrence were submerged objects/deadheads.) 5
- Other (Obstructions involved in the water occurrence were other than those listed above.) 98
- Unknown (The type of obstructions involved in the water occurrence is unknown.) 99

Id: 314 **Water condition (Water condition)**

Predefined value list

The general condition in terms of swell activity of the water in the area of the occurrence. The information is required for occurrences on water only.

- Calm (no swell) (The water conditions were calm (no swell).) 2

  Free from agitation or disturbance; quiet, still, tranquil, serene; without wind.
- Glassy (The water conditions were glassy.) 1

  Having the nature or properties of glass, vitreous; resembling glass in any of its conspicuous properties; appearing as if made of glass.
- Light swell (The water conditions were light swell.) 3

  The rising or heaving of the sea or other body of water in a succession of long rolling waves, as after a storm or the wind causing it has dropped, or due to disturbance at a distance. Less than one metre in amplitude.
- Heavy swell (The water conditions were heavy swell.) 4

  The rising or heaving of the sea or other body of water in a succession of long rolling waves, as after a storm or the wind causing it has dropped, or due to disturbance at a distance. More than one metre in amplitude.
- Unknown (The water conditions were not established.) 99

Id: 316 **Wave height (Wave height)**

Predefined value list

The height of the waves e.g. less than 0.3 to 1 metre, 0.3 to 1 metre or greater than one metre.
Wave Height: Generally taken as the height difference between the wave crest and the preceding trough.

- Less than 0.3 metre (The height of the waves was less than 0.3 metre.) 1
- 0.3 to 1 metre (The height of the waves was 0.3 to 1 metre.) 2
- Greater than 1 metre (The height of the waves was greater than 1 metre.) 3
- Unknown (The height of the waves was not established.) 99

Topic: Sector

Section: Sector identification. (Sector identification)

This section provides information identifying the air traffic services sector as well as details on its operation.

Id: 524 **Display centre of sector radar (Display centre radar)**

Manual entry

Id: 519 **Highest flight level displayed for sector (Highest flight level)**

Manual entry

The highest flight level displayed for sector.
Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 518 **Information whether this sector was combined with one or more other sectors (Combined operation)**

Predefined value list

Information whether this sector was combined with one or more other sectors

- Yes (The ATM sectors were combined at the time.)	1
- No (The ATM sectors were not combined at the time.)	2
- Unknown (Whether the ATM sectors were combined at the time is not known.)	99

Id: 520 **Lowest flight level displayed for sector (Lowest flight level)**

Manual entry

The lowest flight level displayed for this sector.
Flight level: A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.
Note 1. - A pressure type altimeter calibrated in accordance with the standard atmosphere:
a) when set to a QNH altimeter setting, will indicate altitude;
b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
c) when set to a pressure 1 013.2 hPa, may be used to indicate flight levels.
Note 2. - The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Id: 522 **Number of positions in this sector (Positions in sector)**

Manual entry

Id: 523 **Positions which are not manned in sector (Positions vacant)**
Predefined value list
This attribute captures the categories of staff which were absent at the time of occurrence.

- Co-ordinator (The coordinator position was not manned in this sector.) 4
- Executive controller (The executive controller position was not manned in this sector.) 1
- Planning controller (The planning controller position was not manned in this sector.) 2
- Radar assistant (The radar assistant position was not manned in this sector.) 3
- None (No position was vacant) 100
  No position was vacant
- Other (A position other than those listed above was not manned in this sector.) 98
- Unknown (The positions which were not manned in this sector were not established.) 99

Id: 525 **Range set of sector radar (Range of radar)**
Manual entry
The range to which the sector radar was set.

Id: 619 **RTF Frequency (RTF Frequency)**
Manual entry
RTF Frequency

Id: 526 **The name of the sector (Sector name)**
Manual entry

Id: 521 **The number of positions manned in the sector (Positions manned)**
Manual entry

Id: 527 **The services provided by sector (Services provided)**
Predefined value list : values from table [V4 CD ANS Service Types]

Section: Sector traffic (Sector traffic)

This section provides information on the traffic of the air traffic services sector involved in the occurrence.

Id: 533 **Traffic complexity at occurrence (perceived by the 2nd controller) (Trfc compl at 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the traffic complexity at the time of the occurrence was low.) 1
- Low/medium (In the judgement of the 2nd controller, the traffic complexity at the time of the occurrence was low/medium.) 2
- Medium (In the judgement of the 2nd controller, the traffic complexity at the time of the occurrence was medium.) 3
- Medium/high (In the judgement of the 2nd controller, the traffic complexity at the time of the occurrence was medium/high.) 4
- High (In the judgement of the 2nd controller, the traffic complexity at the time of the occurrence was high.) 5
- Unknown (The traffic complexity at the time of the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 534 **Traffic complexity at occurrence (perceived by the controller) (Traffic compl at ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the traffic complexity at the time of the occurrence was low.) 1
- Low/medium (In the judgement of the controller, the traffic perceived complexity at the time of the occurrence was low/medium.) 2
- Medium (In the judgement of the controller, the traffic perceived complexity at the time of the occurrence was medium.) 3
- Medium/high (In the judgement of the controller, the traffic perceived complexity at the time of the occurrence was medium/high.) 4
- High (In the judgement of the controller, the perceived traffic complexity at the time of the occurrence was high.) 5
- Unknown (The traffic complexity at the time of the occurrence, as judged by the controller, was not determined.) 99

Id: 535 **Traffic complexity at occurrence (perceived by the investigator) (Trfc compl at investig)**

Predefined value list

- Low (In the judgement of the investigator, the traffic complexity at the time of the occurrence was low.) 1
- Very high (In the judgement of the investigator, the traffic complexity at the time of the occurrence was very high.) 6
- Low/medium (In the judgement of the investigator, the traffic complexity at the time of the occurrence was low/medium.) 2
- Medium (In the judgement of the investigator, the traffic complexity at the time of the occurrence was medium.) 3
- Medium/high (In the judgement of the investigator, the traffic complexity at the time of the occurrence was medium/high.) 4
- High (In the judgement of the investigator, the traffic complexity at the time of the occurrence was high.) 5

- Unknown (In the judgement of the investigator, the traffic complexity at the time of the occurrence was not determined.) 99

Id: 536 Traffic complexity at occurrence (perceived by the student) (Traffic compl at student)

Predefined value list

- Low (In the judgement of the student controller, the traffic complexity at the time of the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.

- Low/medium (In the judgement of the student controller, the traffic complexity at the time of the occurrence was low/medium.) 2
- Medium (In the judgement of the student controller, the traffic complexity at the time of the occurrence was medium.) 3
- Medium/high (In the judgement of the student controller, the traffic complexity at the time of the occurrence was medium/high.) 4
- High (In the judgement of the student controller, the traffic complexity at the time of the occurrence was high.) 5
- Unknown (The traffic complexity at the time of the occurrence, as judged by the student, was not determined.) 99

Id: 537 Traffic complexity at occurrence (perceived by the supervisor) (Traffic compl at super)

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Low (In the judgement of the supervisor, the traffic complexity at the time of the occurrence was low.) 1
- Low/medium (In the judgement of the supervisor, the traffic complexity at the time of the occurrence was low/medium.) 2
- Medium (In the judgement of the supervisor, the traffic complexity at the time of the occurrence was medium.) 3
- Medium/high (In the judgement of the supervisor, the traffic complexity at the time of the occurrence was medium/high.) 4
- High (In the judgement of the supervisor, the traffic complexity at the time of the occurrence was high.) 5
- Unknown (The traffic complexity at the time of the occurrence, as judged by the supervisor, was not determined.) 99

Id: 540 Traffic complexity before occurrence (perceived by the controller) (Trfc compl before ctlr)

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the traffic complexity before the occurrence was low.) 1
- Low/medium (In the judgement of the controller, the traffic complexity before the occurrence was low/medium.) 2
- Medium (In the judgement of the controller, the traffic complexity before the occurrence was medium.) 3
- Medium/high (In the judgement of the controller, the traffic complexity before the occurrence was medium/high.) 4
- High (In the judgement of the controller, the traffic complexity before the occurrence was high.) 5
- Unknown (The traffic complexity before the occurrence, as judged by the controller, was not determined.) 99

Id: 541 **Traffic complexity before occurrence (perceived by the student) (Trfc compl before student)**

Predefined value list

- Low (In the judgement of the student air traffic controller, the traffic complexity before the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.

- Low/medium (In the judgement of the student air traffic controller, the traffic complexity before the occurrence was low/medium.) 2
- Medium (In the judgement of the student air traffic controller, the traffic complexity before the occurrence was medium.) 3
- Medium/high (In the judgement of the student air traffic controller, the traffic complexity before the occurrence was medium/high.) 4
- High (In the judgement of the student air traffic controller, the traffic complexity before the occurrence was high.) 5
- Unknown (The traffic complexity before the occurrence, as judged by the student air traffic controller, was not determined.) 99

Id: 542 **Traffic complexity before occurrence (perceived by the supervisor) (Trfc compl before super)**

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Low (In the judgement of the supervisor, the traffic complexity before the occurrence was low.) 1
- Low/medium (In the judgement of the supervisor, the traffic complexity before the occurrence was low/medium.) 2
- Medium (In the judgement of the supervisor, the traffic complexity before the occurrence was medium.) 3
- Medium/high (In the judgement of the supervisor, the traffic complexity before the occurrence was medium/high.) 4
- High (In the judgement of the supervisor, the traffic complexity before the occurrence was high.) 5
- Unknown (The traffic complexity before the occurrence, as judged by the supervisor, was not determined.) 99

Id: 538 **Traffic complexity before occurrence. (perceived by the 2nd controller) (Trfc comp before 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the traffic complexity before the occurrence was low.) 1
- Low/medium (In the judgement of the 2nd controller, the traffic complexity before the occurrence was low/medium.) 2
- Medium (In the judgement of the 2nd controller, the traffic complexity before the occurrence was medium.) 3
- Medium/high (In the judgement of the 2nd controller, the traffic complexity before the occurrence was medium/high.) 4
- High (In the judgement of the 2nd controller, the traffic complexity before the occurrence was high.) 5
- Unknown (The traffic complexity before the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 539 **Traffic complexity before occurrence. (perceived by the investigator) (Trfc comp before investig)**

Predefined value list

- Low (In the judgement of the investigator, the traffic complexity before the occurrence was low.) 1
- Very high (In the judgement of the investigator, the traffic complexity before the occurrence was very high.) 6
- Low/medium (In the judgement of the investigator, the traffic complexity before the occurrence was low/medium.) 2
- Medium (In the judgement of the investigator, the traffic complexity before the occurrence was medium.) 3
- Medium/high (In the judgement of the investigator, the traffic complexity before the occurrence was medium/high.) 4
- High (In the judgement of the investigator, the traffic complexity before the occurrence was high.) 5
- Unknown (The traffic complexity before the occurrence, as judged by the investigator, was not determined.) 99

Id: 543 **Traffic density at the time of the occurrence (perceived by the 2nd controller) (Traffic dens at 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the traffic density at the occurrence was low.) 1
- Low/medium (In the judgement of the 2nd controller, the traffic density at the occurrence was low/medium.) 2
- Medium (In the judgement of the 2nd controller, the traffic density at the occurrence was medium.) 3
- Medium/high (In the judgement of the 2nd controller, the traffic density at the occurrence was medium/high.) 4
- High (In the judgement of the 2nd controller, the traffic density at the occurrence was high.) 5
- Unknown (The traffic density at the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 544 **Traffic density at the time of the occurrence (perceived by the controller) (Traffic dens at ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the traffic density at the occurrence was low.) 1
- Low/medium (In the judgement of the controller, the traffic density at the occurrence was low/medium.) 2
- Medium (In the judgement of the controller, the traffic density at the occurrence was medium.) 3
- Medium/high (In the judgement of the controller, the traffic density at the occurrence was medium/high.) 4
- High (In the judgement of the controller, the traffic density at the occurrence was high.) 5
- Unknown (The traffic density at the occurrence, as judged by the controller, was not determined.) 99

Id: 545 **Traffic density at the time of the occurrence (perceived by the investigator) (Traffic dens at investig)**

Predefined value list

- Very high (In the judgement of the investigator, the traffic complexity before the occurrence was very high.) 6

- Low (In the judgement of the investigator, the traffic density at the occurrence was low.) 1
- Low/medium (In the judgement of the investigator, the traffic density at the occurrence was low/medium.) 2
- Medium (In the judgement of the investigator, the traffic density at the occurrence was medium.) 3
- Medium/high (In the judgement of the investigator, the traffic density at the occurrence was medium/high.) 4
- High (In the judgement of the investigator, the traffic density at the occurrence was high.) 5
- Unknown (The traffic density at the occurrence, as judged by the investigator, was not determined.) 99

Id: 546 **Traffic density at the time of the occurrence (perceived by the student) (Traffic dens at student)**

Predefined value list

- Low (In the judgement of the student air traffic controller, the traffic density at the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.
- Low/medium (In the judgement of the student air traffic controller, the traffic density at the occurrence was low/medium.) 2
- Medium (In the judgement of the student air traffic controller, the traffic density at the occurrence was medium.) 3
- Medium/high (In the judgement of the student air traffic controller, the traffic density at the occurrence was medium/high.) 4
- High (In the judgement of the student air traffic controller, the traffic density at the occurrence was high.) 5
- Unknown (The traffic density at the occurrence, as judged by the student air traffic controller, was not determined.) 99

Id: 547 **Traffic density at the time of the occurrence (perceived by the supervisor) (Traffic dens at super)**

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Low (In the judgement of the supervisor, the traffic density at the occurrence was low.) 1
- Low/medium (In the judgement of the supervisor, the traffic density at the occurrence was low/medium.) 2
- Medium (In the judgement of the supervisor, the traffic density at the occurrence was medium.) 3
- Medium/high (In the judgement of the supervisor, the traffic density at the occurrence was medium/high.) 4
- High (In the judgement of the supervisor, the traffic density at the occurrence was high.) 5
- Unknown (The traffic density at the occurrence, as judged by the supervisor, was not determined.) 99

Id: 548 **Traffic density before occurrence (perceived by the 2nd controller) (Trfc dens before 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the traffic density before the occurrence was low.) 1
- Low/medium (In the judgement of the 2nd controller, the traffic density before the occurrence was low/medium.) 2

- Medium (In the judgement of the 2nd controller, the traffic density before the occurrence was medium.) 3
- Medium/high (In the judgement of the 2nd controller, the traffic density before the occurrence was medium/high.) 4
- High (In the judgement of the 2nd controller, the traffic density before the occurrence was high.) 5
- Unknown (The traffic density before the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 549 Traffic density before occurrence (perceived by the controller) (Traffic dens before ctlr)

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the traffic density before the occurrence was low.) 1
- Low/medium (In the judgement of the controller, the traffic density before the occurrence was low/medium.) 2
- Medium (In the judgement of the controller, the traffic density before the occurrence was medium.) 3
- Medium/high (In the judgement of the controller, the traffic density before the occurrence was medium/high.) 4
- High (In the judgement of the controller, the traffic density before the occurrence was high.) 5
- Unknown (The traffic density before the occurrence, as judged by the controller, was not determined.) 99

Id: 550 Traffic density before occurrence (perceived by the investigator) (Trfc dens before investig)

Predefined value list

- Low (In the judgement of the investigator, the traffic density before the occurrence was low.) 1
- Low/medium (In the judgement of the investigator, the traffic density before the occurrence was low/medium.) 2
- Medium (In the judgement of the investigator, the traffic density before the occurrence was medium.) 3
- Medium/high (In the judgement of the investigator, the traffic density before the occurrence was medium/high.) 4
- High (In the judgement of the investigator, the traffic density before the occurrence was high.) 5
- Unknown (The traffic density before the occurrence, as judged by the investigator, was not determined.) 99

Id: 551 Traffic density before occurrence (perceived by the student) (Trfc dens before student)

Predefined value list

- Low (In the judgement of the student air traffic controller, the traffic density before the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.
- Low/medium (In the judgement of the student air traffic controller, the traffic density before the occurrence was low/medium.) 2
- Medium (In the judgement of the student air traffic controller, the traffic density before the occurrence was medium.) 3
- Medium/high (In the judgement of the student air traffic controller, the traffic density before the occurrence was medium/high.) 4
- High (In the judgement of the student air traffic controller, the traffic density before the occurrence was high.) 5

- Unknown (The traffic density before the occurrence, as judged by the student air traffic controller, was not determined.) 99

Id: 552 **Traffic density before occurrence (perceived by the supervisor) (Traffic dens before super)**

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Low (In the judgement of the supervisor, the traffic density before the occurrence was low.) 1
- Low/medium (In the judgement of the supervisor, the traffic density before the occurrence was low/medium.) 2
- Medium (In the judgement of the supervisor, the traffic density before the occurrence was medium.) 3
- Medium/high (In the judgement of the supervisor, the traffic density before the occurrence was medium/high.) 4
- High (In the judgement of the supervisor, the traffic density before the occurrence was high.) 5
- Unknown (The traffic density before the occurrence, as judged by ther supervisor, was not determined.) 99

Id: 554 **Traffic variation before occurrence (perceived by the controller) (Traffic vari before ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Increasing slowly (In the judgement of the controller, the traffic variation before the occurrence was slowly increasing.) 1
- Increasing rapidly (In the judgement of the controller, the traffic variation before the occurrence was rapidly increasing.) 2
- Decreasing slowly (In the judgement of the controller, the traffic variation before the occurrence was slowly decreasing.) 3
- Decreasing rapidly (In the judgement of the controller, the traffic variation before the occurrence was rapidly decreasing.) 4
- No variation (In the judgement of the controller, the traffic variation before the occurrence was not variating.) 5
- Unknown (The traffic variation before the occurrence, as judged by the controller, was not determined.) 99

Id: 555 **Traffic variation before occurrence (perceived by the investigator) (Trfc vari before investig)**

Predefined value list

- Increasing slowly (In the judgement of the investigator, the traffic variation before the occurrence was slowly increasing.) 1
- Increasing rapidly (In the judgement of the investigator, the traffic variation before the occurrence was rapidly increasing.) 2
- Decreasing slowly (In the judgement of the investigator, the traffic variation before the occurrence was slowly decreasing.) 3
- Decreasing rapidly (In the judgement of the investigator, the traffic variation before the occurrence was very rapidly decreasing.) 4
- No variation (In the judgement of the investigator, the traffic variation before the occurrence was not variating.) 5
- Unknown (The traffic variation before the occurrence, as judged by the investigator, was not determined.) 99

Id: 556 **Traffic variation before occurrence (perceived by the student) (Trfc vari before student)**

Predefined value list

- Increasing slowly (In the judgement of the student, the traffic variation before the occurrence was slowly increasing.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.

- Increasing rapidly (In the judgement of the student air traffic controller, the traffic variation before the occurrence was rapidly increasing.) 2
- Decreasing slowly (In the judgement of the student air traffic controller, the traffic variation before the occurrence was slowly decreasing.) 3
- Decreasing rapidly (In the judgement of the student air traffic controller, the traffic variation before the occurrence was very rapidly decreasing.) 4
- No variation (In the judgement of the student air traffic controller, the traffic variation before the occurrence was not variating.) 5
- Unknown (The traffic variation before the occurrence, as judged by the student, was unknown.) 99

Id: 557 Traffic variation before occurrence (perceived by the supervisor) (Traffic vari before super)

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Increasing slowly (In the judgement of the supervisor, the traffic variation before the occurrence was slowly increasing.) 1
- Increasing rapidly (In the judgement of the supervisor, the traffic variation before the occurrence was rapidly increasing.) 2
- Decreasing slowly (In the judgement of the supervisor, the traffic variation before the occurrence was slowly decreasing.) 3
- Decreasing rapidly (In the judgement of the supervisor, the traffic variation before the occurrence was very rapidly decreasing.) 4
- No variation (In the judgement of the supervisor, the traffic variation before the occurrence was not variating.) 5
- Unknown (The traffic variation before the occurrence, as judged by the supervisor, was not determined.) 99

Id: 553 Traffic variation before occurrence. (perceived by the 2nd controller) (Trfc vari before 2nd ctlr)

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Increasing slowly (In the judgement of the second controller, the traffic variation before the occurrence was increasing slowly.) 1
- Increasing rapidly (In the judgement of the second controller, the traffic variation before the occurrence was increasing rapidly.) 2
- Decreasing slowly (In the judgement of the second controller, the traffic variation before the occurrence was decreasing slowly.) 3
- Decreasing rapidly (In the judgement of the second controller, the traffic variation before the occurrence was decreasing rapidly.) 4
- No variation (In the judgement of the second controller, the traffic variation before the occurrence was not variating.) 5
- Unknown (The traffic variation before the occurrence, as judged by the second controller, was not determined.) 99

Section: Sector workload (Sector workload)

This section provides information on the workload of the air traffic services sector involved in the occurrence.

Id: 617 **Actual sector load expressed in number of Aircrafts (this hour) (Actual sector load)**

Manual entry

Id: 618 **Aircraft on same frequency expressed in number of Aircrafts (A/c on same freq.)**

Manual entry

Id: 355 **ATM person's OJTI in progress (OJTI in progress)**

Predefined value list

Information whether on-the-job-training was in progress for this air traffic management person.

- Yes (Air traffic management personnel "On The Job Training" was in progress.) 1
- No (Air traffic management personnel "On The Job Training" was not in progress.) 2
- Unknown (Whether the air traffic management personnel "On The Job Training" was in progress is not known.) 99

Id: 616 **Sector capacity expressed in Aircraft/Hour (Sector capacity)**

Manual entry

Id: 529 **Stress 2 hours before occurrence (perceived by the controller) (Stress before controller)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the stress level two hours before the occurrence was low.) 1
- Medium (In the judgement of the controller, the stress level two hours before the occurrence was medium.) 2
- High (In the judgement of the controller, the stress level two hours before the occurrence was high.) 3
- Unknown (The stress level two hours before the occurrence, as judged by the controller, was not determined.) 99

Id: 530 **Stress 2 hours before occurrence (perceived by the investigator) (Stress before investigator)**

Predefined value list

- Low (In the judgement of the investigator, the stress level two hours before the occurrence was low.) 1
- Medium (In the judgement of the investigator, the stress level two hours before the occurrence was medium.) 2
- High (In the judgement of the investigator, the stress level two hours before the occurrence was high.) 3
- Unknown (The stress level two hours before the occurrence, as judged by the investigator, was not determined.) 99

Id: 531 **Stress 2 hours before occurrence (perceived by the student) (Stress before student)**

Predefined value list

- Low (In the judgement of the student air traffic controller, the stress level two hours before the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.

- Medium (In the judgement of the student air traffic controller, the stress level two hours before the occurrence was medium.) 2
- High (In the judgement of the student air traffic controller, the stress level two hours before the occurrence was high.) 3
- Unknown (The stress level two hours before the occurrence, as judged by the student air traffic controller, was not determined.) 99

Id: 532 **Stress 2 hours before occurrence (perceived by the supervisor) (Stress before super)**

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States.

- Low (In the judgement of the supervisor, the stress level two hours before the occurrence was low.) 1
- Medium (In the judgement of the supervisor, the stress level two hours before the occurrence was medium.) 2
- High (In the judgement of the supervisor, the stress level two hours before the occurrence was high.) 3
- Unknown (The stress level two hours before the occurrence, as judged by the supervisor, was not determined.) 99

Id: 528 **Stress 2 hours before occurrence. (perceived by the 2nd controller) (Stress before 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the stress level two hours before the occurrence was low.) 1
- Medium (In the judgement of the 2nd controller, the stress level two hours before the occurrence was medium.) 2
- High (In the judgement of the 2nd controller, the stress level two hours before the occurrence was high.) 3
- Unknown (The stress level two hours before the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 558 **Workload (perceived by the 2nd controller) (Workload 2nd ctlr)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the 2nd controller, the workload at the time of the occurrence was low.) 1
- Very high (In the judgement of the 2nd controller, the workload at the time of the occurrence was very high.) 4
- Medium (In the judgement of the 2nd controller, the workload at the time of the occurrence was medium.) 2
- High (In the judgement of the 2nd controller, the workload at the time of the occurrence was high.) 3

- Unknown (The workload at the time of the occurrence, as judged by the 2nd controller, was not determined.) 99

Id: 559 **Workload (perceived by the controller) (Workload controller)**

Predefined value list

An Air Traffic Controller is a person authorized to provide an air traffic control service.

- Low (In the judgement of the controller, the workload at the time of the occurrence was low.) 1
- Very high (In the judgement of the controller, the workload at the time of the occurrence was very high.) 4
- Medium (In the judgement of the controller, the workload at the time of the occurrence was medium.) 2
- High (In the judgement of the controller, the workload at the time of the occurrence was high.) 3
- Unknown (The workload at the time of the occurrence, as judged by the controller, was not determined.) 99

Id: 560 **Workload (perceived by the investigator) (Workload investigator)**

Predefined value list

- Low (In the judgement of the investigator, the workload at the time of the occurrence was low.) 1
- Medium (In the judgement of the investigator, the workload at the time of the occurrence was medium.) 2
- High (In the judgement of the investigator, the workload at the time of the occurrence was high.) 3
- Unknown (The workload at the time of the occurrence, as judged by the investigator, was not determined.) 99

Id: 561 **Workload (perceived by the student) (Workload student)**

Predefined value list

- Low (In the judgement of the student air traffic controller, the workload at the time of the occurrence was low.) 1

  A student air traffic controllers is a selected individual who has successfully completed initial ATC instruction and training to enable him/her to obtain theoretical qualifications prior to commencement of on the job training instruction.
- Medium (In the judgement of the student air traffic controller, the workload at the time of the occurrence was medium.) 2
- High (In the judgement of the student air traffic controller, the workload at the time of the occurrence was high.) 3
- Unknown (The workload at the time of the occurrence, as judged by the student air traffic controller, was not determined.) 99

Id: 562 **Workload (perceived by the supervisor) (Workload supervisor)**

Predefined value list

The use of the term "supervisor" will differ between States and even between units in some States. Generally a person in charge of a group of other persons.

- Low (In the judgement of the supervisor, the workload at the time of the occurrence was low.) 1
- Medium (In the judgement of the supervisor, the workload at the time of the occurrence was medium.) 2
- High (In the judgement of the supervisor, the workload at the time of the occurrence was high.) 3
- Unknown (The workload at the time of the occurrence, as judged by the supervisor, was not determined.) 99

Topic: Separation

Section: Distance between aircraft involved in a loss of separation. (Dis

This section provides information on the relative positions of aircraft involved in a loss of separation.

Id: 575 **Minimum horizontal separation estimated (Est minimum horiz sep)**

Manual entry

The minimal horizontal distance during a incident involving two aircraft as estimated by the investigation taking into account all available evidence (witnesses, recordings). Note, if the incident involved more than two aircraft, the separation page needs to be repeated for each pair.

Id: 577 **Minimum horizontal separation prescribed (Req minimum horiz sep)**

Manual entry

The minimum horizontal separation that was prescribed at the time of the loss of separation incident.

Id: 579 **Minimum horizontal separation recorded (Min horiz sep recorded)**

Manual entry

The minimal horizontal distance during a incident involving two aircraft as recorded by a recording system such as RADAR recording.

Id: 581 **Minimum vertical separation estimated (Est vert separation)**

Manual entry

The minimal vertical distance during a incident involving two aircraft as estimated by the investigation taking into account all available evidence (witnesses, recordings). Note, if the incident involved more than two aircraft, the separation page needs to be repeated for each pair.

Id: 583 **Minimum vertical separation prescribed (Req vert separation)**

Manual entry

The minimum vertical separation that was prescribed at the time of the loss of separation incident.

Id: 585 **Minimum vertical separation recorded (Vertical sep recorded)**

Manual entry

The minimal vertical distance during a incident involving two aircraft as recorded by a recording system such as RADAR recording.

Section: Separation (Separation)

Id: 54 **Aircraft call sign (Call sign)**

Manual entry

The assigned International Telecommunications Union radio call sign of the aircraft. A group of letters, figures or a combination thereof which is either identical to, or the coded equivalent of, the aircraft call sign to be used in air-ground communications, and which is used to identify the aircraft in ground-ground air traffic services communication

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Id: 572 **Aircraft landed safely after an AIRPROX (Safe landing)**

Predefined value list

Information on whether the aircraft landed safely after a loss of separation incident.

- Yes (The aircraft landed safely after the Airprox.) 1
- No (The aircraft did not land safely after the Airprox.) 2
- Unknown (Whether the aircraft landed safely after the Airprox is not known.) 99

Id: 21 **Aircraft manufacturer/model (Manufacturer/model)**

Predefined value list : values from table [V4 CD Aircrafts ICAO]

The name of the aircraft manufacturer and model.

Id: 244 **Aircraft registration (Aircraft registration)**

Manual entry

The mark used to identify an aircraft. The mark consists of a common mark or nationality mark followed by a registration mark. The nationality mark shall be selected from the series of nationality symbols included in the radio call signs allocated to the State of Registry by the International Telecommunication Union. The nationality mark shall be notified to the International Civil Aviation Organization. The registration mark shall be letters, numbers, or a combination of letters and numbers, and shall be that assigned by the State of Registry or common mark registering authority. When letters are used for the registration mark, combinations shall not be used which might be confused with the five-letter combinations used in the International Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT. Rules regarding registration marks do not apply to meteorological pilot balloons used exclusively for meteorological purposes or to unmanned free balloons without a payload. ICAO Annex 7

Id: 34 **Aircraft type designator assigned by air traffic management (Type designator)**

Predefined value list : values from table [V4 CD Aircrafts ATM]

The four character code assigned to the aircraft. ICAO Doc 8643.

Id: 566 **Avoiding action taken by aircraft in an incident involving a loss of separation (A/c avoiding action)**

Predefined value list

Information on whether any avoiding action was taken by the aircraft during an incident involving a loss of separation, and whether it was adequate/late.

- Yes (The aircraft flight crew took action to avoid a collision.) 1
- In progress (The aircraft flight crew action to avoid a collision was in progress.) 4

- Inadequate (The aircraft flight crew action to avoid a collision was inadequate.) 3
- Late (The aircraft flight crew action to avoid a collision was late.) 2
- None (The aircraft flight crew took no action to avoid a collision.) 97
- Unknown (Whether the aircraft flight crew took action to avoid a collision is not known.) 99

Id: 565 Avoiding action taken by ATM in loss of separation incident (ATM action)

Predefined value list

Information on whether any air traffic management initiated avoidance action existed during an loss of separation incident, and whether it was adequate/late.

- Yes (Air traffic management personnel initiated action to avoid a collision.) 1
- In progress (Air traffic management personnel initiated action to avoid a collision was in progress.) 4
- Inadequate (Air traffic management personnel initiated inadequate action to avoid a collision.) 3
- Late (Air traffic management personnel were late in initiating action to avoid a collision.) 2
- None (Air traffic management personnel took no action to avoid a collision.) 97
- Unknown (Whether air traffic management personnel initiated action to avoid a collision is not known.) 99

Id: 567 Bank angle of aircraft in separation (Bank angle)

Predefined value list

Information on the bank angle of the aircraft when an loss of separation incident took place, e.g. inverted, moderate, slight, steep or wings level.

- Wings level (The aircraft bank angle during the separation was wings level.) 1
- Slight bank (The aircraft bank angle during the separation was - slight bank.) 2
- Moderate bank (The aircraft bank angle during the separation was - moderate bank.) 3
- Steep bank (The aircraft bank angle during the separation was - steep bank.) 4
- Inverted (The aircraft bank angle during the separation was - inverted.) 5
- Unknown (The aircraft bank angle during the separation is not known.) 99

Id: 568 Bank direction of aircraft in separation (Bank direction)

Predefined value list

Information on the direction of bank when a loss of separation incident took place, i.e. left or right, of the aircraft when a loss of separation occurred.

- Left (The aircraft banked left during the separation.) 1
- Right (The aircraft banked right during the separation.) 2
- Unknown (The aircraft direction of bank during the separation is not known.) 99

Id: 563 Information to indicate whether airborne collision avoidance system/traffic alert and collision avoidance system was installed (ACAS/TCAS installed)

Predefined value list

Information whether ACAS or TCAS was installed at the time of an AIRPROX incident. ACAS: An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.
Note 1.- In this context the term "independently" means that ACAS operates independently of other systems used by air traffic services except for communications with Mode S ground stations as defined in ICAO Annex 10.
Note 2.- SSR transponders referred to above are those operating in Mode C or Mode S.

- Yes (ACAS/TCAS was installed.) 1
  A traffic collision avoidance system was installed.
- No (Neither ACAS nor TCAS was installed.) 2
  A traffic collision avoidance system was not installed.
- Unknown (Whether a traffic collision avoidance system was installed is not known.) 99

Id: 571 Initiator of avoiding action in loss of separation (Initiator avoiding act)

Predefined value list

Information on who initiated the avoiding action in a case involving a loss of separation incident.

- Controller (The person involved in initiating avoiding action was the controller.) 2
- Pilot (The person involved in initiating avoiding action was the pilot.) 1
- Pilot and controller (The persons involved in initiating avoiding action were the pilot and the controller.) 3
- Other (The person involved in initiating avoiding action was a person[s] other than a pilot or a controller.) 98
- Unknown (The person involved in initiating avoiding action is not known.) 99

Id: 587 Other aircraft sighted in loss of separation incident (Other aircraft seen)

Predefined value list

Information on whether this aircraft sighted the other aircraft involved in a loss of separation incident.

- Yes (The other aircraft involved was sighted.) 1
- Wrong aircraft sighted (Another aircraft was sighted but it was not the one involved in the occurrence.) 3
- No (The other aircraft involved was not sighted.) 2
- Unknown (Whether the other aircraft sighted was involved is not known.) 99

Id: 612 Pilot response detail (Pilot response detail)

Predefined value list

- In accordance with RA (In accordance with RA) 1
  Resolution advisory (RA). An indication given to the flight crew recommending:
  a)a manoeuvre intended to provide separation from all threats; or

  b)a manoeuvre restriction intended to maintain existing separation.
  (Annex 10, Vol 4)
- Vertical rate change < indicated (Vertical rate change < indicated) 2
- Vertical rate change > indicated (Vertical rate change > indicated) 3
- Opposite sense to the RA (Opposite sense to the RA) 4
- Switching to TA - only mode (Switching to TA - only mode) 5
- Switching to Stanby (Switching to Stanby) 6
- Switching transponder off (Switching transponder off) 7
- Horizontal manouevre (Horizontal manouevre) 8
  This aircraft executed a horizontal escape manouevre.

Id: 611 Pilot response to Resolution Advisory (Pilot response to RA)

Predefined value list

The clasification of the response of the pilot to the RA, an indication whther he climbed, descended, turned, did not respond, etc.

- Climb (Climb) 1

- Descend (Descend) 2
- Turn (Turn) 3
- No response done (No response done) 4
- Ne response required (Ne response required) 5
- Reduction vertical rate (Reduction vertical rate) 6

Id: 613 Resolution advisory Classification (RA Classification)

Predefined value list

Resolution advisory classification: the classification of an indication given to the flight crew recommending a manoeuvre intended to provide separation from all threats; or a manoeuvre restriction intended to maintain existing separation.

- Useful (Useful: there was or would have been a risk of collision between the aircraft.) 1

  Useful:The ACAS system generated an advisory in accordance with its technical specifications in a situation where there was or would have been a risk of collision between the aircraft.

- False (False: an advisory in a situation where there was not or would not have been a risk of collision between the aircraft.) 2

  False:The ACAS II system generated an advisory in accordance with its technical specifications in a situation where there was not or would not have been a risk of collision between the aircraft.

- Phantom (Phantom:non-existing threat) 3

  Phantom: A form of a false RA in which the ACAS system generated an advisory against a non existing threat aircraft.

- Unnecessary (Unnecessary: an advisory in a situation where there was not or would not have been a risk of collision between the aircraft.) 4

  Unnecessary: The ACAS system generated an advisory in accordance with its technical specifications in a situation where there was not or would not have been a risk of collision between the aircraft.

- Unclassifiable (Unclassifiable) 5

  The ACAS system generated an advisory that cannot be classified because of insufficient data

Id: 609 Resolution Advisory Geometry (RA Geometry)

Predefined value list

The relative position and velocities of the aircraft involved in an RA.

Resolution advisory (RA). An indication given to the flight crew recommending:

a)a manoeuvre intended to provide separation from all threats; or

b)a manoeuvre restriction intended to maintain existing separation

- High Vertical Rate (High Vertical Rate) 1

  A high vertical rate encounter occurs whenever the vertical speed on any of the aircraft is greater than 1500 ft/minute at the time of the RA

- Vertical Crossings (Vertical Crossings) 2

  Vertical crossings occur whenever there is one or more RA for the altitude of one aircraft to pass through the altitude of another aircraft during the RA. (i.e. for there to be no vertical separation at some point during the encounter).

  Crossing encounter: An encounter in which the altitude separation of the two aircraft exceeds 100 ft at the beginning and at the end of the encounter window, and the relative vertical position of two aircraft at the end of the encounter window is reversed from that at the beginning of the encounter window. (Annex 10, Vol 4, 4.4.1)

  Altitude crossing RA. A resolution advisory is altitude crossing if own ACAS aircraft is currently at least 30 m (100 ft) below or above the threat aircraft for upward or downward sense advisories, respectively. (annex 10, Vol 4)

- Level - Level (Level - Level) 3

  A level level encounter is when both aircraft are flying level at the time the RA occurs

  Level aircraft. An aircraft that is not transitioning. (annex 10, Vol 4, 4.4.1)

- Head On (Head On) 4

  A head on encounter is when an RA occurs between two aircraft that are flying on the same horizontal track in opposite directions. (This would also be used for an encounter where the difference in the headings of the two aircraft is between 150 and 210 degrees)

- Parallel Arrival (Parallel Arrival) 5

  A parallel arrival encounter is an RA between two aircraft established (or becoming established) on closely spaced parallel approaches.

- Tail Chase (Tail Chase) 6

  A tail chase encounter is an RA between two aircraft travelling in approximately the same direction (+/- 30 degrees), where the trailing aircraft is catching up with or overtaking the lead aircraft.

- Horizontal Track Crossings (Horizontal Track Crossings) 7

  A horizontal track crossing RA occurs when there is an RA between aircraft whose horizontal tracks cross each other.

- Offset (Offset) 8

Id: 610 Resolution Advisory Type (RA Type)

Predefined value list

The type of RA:

Altitude crossing RA. A resolution advisory is altitude crossing if own ACAS aircraft is currently at least 30 m (100 ft) below or above the threat aircraft for upward or downward sense advisories, respectively.
Climb RA. A positive RA recommending a climb but not an increased climb.
Corrective RA. A resolution advisory that advises the pilot to deviate from the current flight path.
Descend RA. A positive RA recommending a descent but not an increased descent.
Increased rate RA. A resolution advisory with a strength that recommends increasing the altitude rate to a value exceeding that recommended by a previous climb or descend RA.
Reversed sense RA. A resolution advisory that has had its sense reversed.
Annex 10, Vol 4, Chapter 4.

Resolution advisory (RA). An indication given to the flight crew recommending:

a)a manoeuvre intended to provide separation from all threats; or

b)a manoeuvre restriction intended to maintain existing separation

Positive RA. A resolution advisory that advises the pilot either to climb or to descend (applies to ACAS II).

- Climb (Climb) 1
- Descend (Descend) 2
- Crossing (Crossing) 3
- Reversal (Reversal) 4
- Increase (Increase) 5
- Reduce / Adjust (Reduce / Adjust) 6
- Maintain vertical speed (Maintain vertical speed) 7

- Monitor vertical speed (Monitor vertical speed) 8

Id: 591 Risk reduction A/C from avoiding action in separation (Risk reduction A/C)

Predefined value list

Information on whether the risk of collision was reduced by the avoiding action taken during aloss of separation incident.

- Did/would have (The avoiding action taken did or would have reduced the risk of a collision.) 1
- None/would not have (There was no avoiding action or the avoiding action taken would not have reduced the risk of a collision.) 2
- Unknown (Whether the avoiding action taken would have reduced the risk of a collision is not known.) 99

Id: 589 Risk Reduction ATM (Risk Reduction ATM)

Predefined value list

- Did/would have (The avoiding action taken did or would have reduced the risk of a collision.) 1
- None/would not have (There was no avoiding action or the avoiding action taken would not have reduced the risk of a collision.) 2
- Unknown (Whether the avoiding action taken would have reduced the risk of a collision is not known.) 99

Id: 597 The height or altitude at which the loss of separation occurred (Height/altitude)

Manual entry

The height or altitude at which the loss of separation incident occurred.
Height: The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Altitude:The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

Id: 595 The quality of the traffic information provided (Traffic info quality)

Predefined value list

Information on the quality of the overall traffic information at the time of the loss of separation incident, i.e. complete, incomplete, incorrect, late or none.

- None (The air traffic management had no relevant information.) 97
- Complete (The air traffic management traffic information was complete.) 1
- Incomplete (The air traffic management traffic information was incomplete.) 2
- Incorrect (The air traffic management traffic information was incorrect.) 4
- Late (The air traffic management traffic information was late.) 3
- Unknown (The extent of the air traffic management traffic information is not known.) 99

Id: 594 The type of traffic information provided (Traffic info type)

Predefined value list

The type of the traffic information provided to the aircraft during the loss of separation incident, i.e. ACAS, air-to-air communications, ATC [non-radar], ATC [radar-information], none or visual sighting.

- None (The flight crew did not see the conflicting aircraft.) 97
- ACAS display (The flight crew saw the conflicting aircraft as a result of the airborne collision avoidance system.) 5

  Airborne collision avoidance system (ACAS). An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

- Air-air communications (The flight crew saw the conflicting aircraft as a result of air-air communications.) 2
- ATC (non-radar) (The flight crew saw the conflicting aircraft as a result of air traffic control (non-radar) advice.) 3
- ATC, radar information (The flight crew saw the conflicting aircraft as a result of air traffic control (radar information) advice.) 4
- Essential traffic information (Essential traffic information) 7

  Essential traffic information shall include:
  a)direction of flight of aircraft concerned;
  b)type and wake turbulence category (if relevant) of aircraft concerned;
  c)cruising level of aircraft concerned; and
  1)estimated time over the reporting point nearest to where the level will be crossed; or
  2)relative bearing of the aircraft concerned in terms of the 12-hour clock as well as distance from the conflicting traffic; or
  3)actual or estimated position of the aircraft concerned.
  (PANS-ATM 5.10.2, ICAO DOC 4444)

- Essential local traffic information (Essential local traffic information) 6

  6.2 ESSENTIAL LOCAL TRAFFIC

  6.2.1 Information on essential local traffic known to the controller shall be transmitted without delay to departing and arriving aircraft concerned.

  Note 1: Essential local traffic in this context consists of any aircraft, vehicle or personnel on or near the runway to be used, or traffic in the take-off and climb-out area or the final approach area, which may constitute a collision hazard to a departing or arriving aircraft. (PANS-ATM, 6.2, ICAO DOC 4444)

- Visual sighting (The flight crew saw the conflicting aircraft as a result of a visual sighting.) 1
- Unknown (The source of information which enabled the flight crew to see the conflicting aircraft is not known.) 99

Id: 596 Use of aircraft lighting in separation (Aircraft lighting)

Predefined value list

Information on the use of aircraft lighting in a loss of separation incident.

- None (No lights were displayed on the aircraft at the time.) 97
- Landing/taxi lights (The lights displayed on the aircraft at the time included landing/taxi lights.) 5
- Logo (tailfin) light (The lights displayed on the aircraft at the time included logo (tailfin) light.) 6
- Navigation lights (The lights displayed on the aircraft at the time included navigation lights.) 1
- Anti-collision lights (The lights displayed on the aircraft at the time included red anti-collision lights.) 4
- Strobe lights (The lights displayed on the aircraft at the time included strobe lights.) 2
- Other (The lights displayed on the aircraft at the time included others than those listed above.) 98
- Unknown (Which lights were displayed on the aircraft at the time are not known.) 99

Id: 598 Vertical profile of separation (Vertical profile)

Predefined value list

Vertical profile of the aircraft involved in the loss of separation incident, i.e. climbing, descending or level flight before any avoidance action was taken.

- Level (Level) 1

  Level

- Climb (Climb) 2

  Climb

- Descent (Descent) 3

  Descent

- Unknown (Unknown) 99
  Unknown

Id: 590 Visibility restrictions in separation (Visibility restrictions)

Predefined value list

Information on the restrictions to visibility in aloss of separation incident.
Visibility. Visibility for aeronautical purposes is the greater of:

a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;

b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

Note. The two distances have different values in air of a given extinction coefficient, and the latter b) varies with the background illumination. The former a) is represented by the meteorological optical range (MOR).

- None (There was no restriction to visibility prior to the occurrence.) 97
  The information refers to the visibility from the cockpit of this aircraft.
- Dirty windscreen (The visibility was restricted prior to the occurrence by a dirty windscreen.) 3
  The information refers to the visibility from the cockpit of this aircraft.
- Haze/smog (The visibility was restricted prior to the occurrence by haze/smog.) 6
  Haze consists of fine particles of dust and pollution suspended in the atmosphere and is distinguished from fog by its bluish or yellowish tinge.
  The information refers to the visibility from the cockpit of this aircraft.
- IMC (The visibility was restricted prior to the occurrence by instrument meteorological conditions.) 5
  The information refers to the visibility from the cockpit of this aircraft.
- Other cockpit struct (The visibility was restricted prior to the occurrence by another cockpit structure.) 4
  The information refers to the visibility from the cockpit of this aircraft.
- Sun glare (The visibility was restricted prior to the occurrence by sun glare.) 1
  The information refers to the visibility from the cockpit of this aircraft.
- Windscreen pillar (The visibility was restricted prior to the occurrence by a windscreen pillar.) 2
  The information refers to the visibility from the cockpit of this aircraft.
- Other (The visibility was restricted prior to the occurrence by factors other than those listed above.) 98
  The information refers to the visibility from the cockpit of this aircraft.
- Unknown (The factors which restricted the visibility prior to the occurrence were not established.) 99

Id: 599 Visual approach in separation (Visual approach)

Predefined value list

Information on whether this aircraft was on a visual approach at the time of the loss of separation incident.

- Yes (A visual approach was involved in the loss of separation.) 1
- No (A visual approach was not involved in the loss of separation.) 2
- Unknown (Whether a visual approach was involved in the loss of separation is not known.) 99

Id: 593 **VMC climb/descent (VMC climb/descent)**

Predefined value list

VMC climb/descent: A climb or decent in which the pilot is responsible for maintaining separation from other traffic and is also responsible for maintaining visual meteorological conditions.
PANS-ATM, 5.9 refers: When so requested by an aircraft and provided it is agreed by the pilot of the other aircraft and so authorized by the appropriate ATS authority, an ATC unit may clear a controlled flight, including departing and arriving flights, operating in airspace Classes D and E in visual meteorological conditions during the hours of daylight to fly subject to maintaining own separation to one other aircraft and remaining in visual meteorological conditions. When a controlled flight is so cleared, the following shall apply:

a)the clearance shall be for a specified portion of the flight at or below 3 050 m (10 000 ft), during climb or descent and subject to further restrictions as and when prescribed on the basis of regional air navigation agreements;

b)if there is a possibility that flight under visual meteorological conditions may become impracticable, an IFR flight shall be provided with alternative instructions to be complied with in the event that flight in visual meteorological conditions (VMC) cannot be maintained for the term of the clearance;

c)the pilot of an IFR flight, on observing that conditions are deteriorating and considering that operation in VMC will become impossible, shall inform ATC before entering instrument meteorological conditions (IMC) and shall proceed in accordance with the alternative instructions given.

- Yes (Yes)	1
- No (No)	2
- Unknown (Unknown)	99

Section: Separation General (General)

Id: 570 **Information on the relative horizontal movement of the a/c during the loss of separation. (Horizontal rel mvmt)**

Predefined value list

Information on the horizontal movement e.g. converging track, crossing tracks or parallel tracks, of the aircraft when a loss of separation incident took place,

- Converging tracks (The horizontal profile of the relative tracks for traffic separation was - converging tracks.)	3
- Crossing tracks (The horizontal profile of the relative tracks for traffic separation was - crossing tracks.)	1
Crossing tracks are intersecting tracks where one track is separated from another by more than 45 degrees or from a reciprocal track by more than 45 degrees.	
- Parallel tracks (The horizontal profile of the relative tracks for traffic separation was - parallel tracks.)	2
- Same Tracks (Same Tracks)	4
- Diverging Tracks (Diverging Tracks)	5
- Reciprocal Tracks (Reciprocal Tracks)	6
- Unknown (The horizontal profile of the relative tracks for traffic separation is - unknown.)	99

Id: 574 **Military aircraft involved in a loss of separation incident (Military a/c involved)**

Predefined value list

This is used to record whether any military aircraft was involved in the loss of separationincident.

- Yes (Military aircraft were involved in the occurrence.)	1
- No (No military aircraft were involved in the occurrence.)	2
- Unknown (Whether military aircraft were involved in the occurrence is not known.)	99

Id: 588 **Rate of closure in separation (Rate of closure)**

Manual entry

The rate of closure between the aircraft involved in the loss of separation incident in metres/second.

Topic: Survival

Section: Emergency lighting (Emergency lighting)

This section provides information on availability and functioning of emergency lighting systems. This section should be completed in all cases of evacuations.

Id: 97 **Emergency lighting aircraft functioning (Functioning emg. lighting)**

Predefined value list

Information to determine whether the emergency lighting system of the aircraft was functioning.

- Functioned properly (The aircraft's emergency lighting functioned properly.) 1
- Did not function (The aircraft's emergency lighting did not function properly.) 2
- Not activated (The aircraft's emergency lighting was not activated.) 3
- Unknown (Whether the aircraft's emergency lighting functioned properly was not determined.) 99

Id: 163 **Emergency lighting installed on the aircraft (Emg lighting installed)**

Predefined value list

The information whether an emergency lighting system was installed on the aircraft.

- Installed (Emergency lighting was installed.) 1
- Not installed (Emergency lighting was not installed.) 2
- Unknown (Whether emergency lighting was installed is unknown.) 99

Section: Evacuation. (Evacuation)

This section provides information on the escape time, the number of persons evacuated as well as difficulties encountered in the evacuation. This section should be completed in all cases of evacuations. For this purpose only escape through emergency exits is an evacuation as distinct from escape through fortuitous openings in the fuselage.

Id: 56 **Chutes/slides installed (Chute/slide installed)**

Predefined value list

Information whether escape chutes or slides were installed on the aircraft. This information is only relevant in case of evacuations.

- Yes (Aircraft escape chutes/slides were installed.)	1
- No (Aircraft escape chutes/slides were not installed.)	2
- Unknown (Not known if aircraft escape chutes/slides installed.)	99

Id: 55 **Chutes/slides operation (Chute/slide operation)**

Predefined value list

Information whether the chutes/slides were working as designed.

- Effective (Aircraft escape chutes/slides worked as intended.)	1
- Ineffective (Aircraft escape chutes/slides did not work as intended.)	2
- Not used (Aircraft escape chutes/slides not used.)	3
- Unknown (Whether the aircraft escape chutes/slides worked as intended was not determined.)	99

Id: 98 **Escape time in the evacuation from aircraft (Escape time)**

Manual entry

The time it took to evacuate all persons from the aircraft measured from the time that the evacuation started until it was complete.
N.B. Evacuation means the leaving of the aircraft through approved exits and using approved means following the aircraft evacuation procedure. Escape from the wreckage through breaks in the fuselage is not what is meant by "evacuation".

Id: 135 **Evacuation hampered by (Evac hampered by)**

Predefined value list

Provide a list of all the impediments to the evacuation regardless of whether or not the evacuation was successful.

- Aircraft underwater (The evacuation was hampered by the aircraft underwater.)	8
- Aircraft/cabin debris (The evacuation was hampered by aircraft/cabin debris.)	4
- Darkness (The evacuation was hampered by darkness.)	5
- Door(s) blocked (The evacuation was hampered by door(s) blocked.)	7
- Fire (The evacuation was hampered by fire.)	1
- Injuries (The evacuation was hampered by injuries.)	3
- Not hampered (Nothing hampered the evacuation.)	97
- Shock/fear (The evacuation was hampered by shock/fear.)	6
- Smoke (The evacuation was hampered by smoke.)	2
- Other (The evacuation was hampered by factors other than those listed above.)	98
- Unknown (The factor which hampered the evacuation is unknown.)	99

Id: 211 **Number of persons evacuated (Persons evacuated)**

Manual entry

Information on the number of persons evaluated from the aircraft.
N.B. Evacuation means the leaving of the aircraft through approved exits and using approved means following the aircraft evacuation procedure. Escape from the wreckage through breaks in the fuselage is not what is meant by "evacuation".

Id: 239 **Reasons chutes/slides not effective (Reasons chutes not eff.)**

Predefined value list

Provide the reasons why the escape chutes/escape slides were not effective.

- None (There were no escape chutes/slides fitted to the aircraft.)	97
- Aircraft attitude (The escape chutes/slides were ineffective because of the aircraft attitude.)	6
- Burnt (The escape chutes/slides were ineffective because they were burnt.)	2
- Deflated (The escape chutes/slides were ineffective because they deflated.)	5
- Incorrect rigging (The escape chutes/slides were ineffective because they were not rigged correctly.)	8
- Not inflated (The escape chutes/slides were ineffective because they were not inflated.)	4
- Premature inflation (The escape chutes/slides were ineffective because they inflated prematurely.)	7
- Ripped (The escape chutes/slides were ineffective because they were ripped.)	3
- Wind (The escape chutes/slides were ineffective due to wind.)	1
- Other (The escape chutes/slides were ineffective for a reason other than those listed above.)	98
- Unknown (The reason why the escape chutes/slides were ineffective is unknown.)	99

Section: Locating method. (Locating method)

This section provides information on how the aircraft was located and the difficulties, if any, with the ELB-A or ELT transmitter.

Id: 91 **Emergency Location Beacon Aircraft - Emergency Locator Transmitter [ELB-A, ELT] status (ELB-A, ELT status)**

Predefined value list

The status of the ELB-A, ELT: whether it worked as designed or why it did not work. ELT - Emergency locator transmitter. A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following: Automatic fixed ELT (ELT (AF)). An automatically activated ELT which is permanently attached to an aircraft. Automatic portable ELT (ELT (AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft. Automatic deployable ELT (ELT (AD)). An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Provision for manual deployment is also made. Survival ELT (ELT (S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors. ICAO Annex 6.

- Battery failed (The emergency location beacon-aircraft or emergency locator transmitter effectiveness was limited because its battery failed.)	5
- Damaged (The emergency location beacon-aircraft or emergency locator transmitter effectiveness was reduced due to it being damaged.)	4
- Internal failure (The emergency location beacon-aircraft or emergency locator transmitter did not operate as intended because it sustained an internal failure.)	6
- Not activated (The emergency location beacon-aircraft or emergency locator transmitter was ineffective as it was not activated.)	3
- Not carried (No emergency location beacon-aircraft or emergency locator transmitter was carried in the aircraft.)	2
- Operated effectively (The emergency location beacon-aircraft or emergency locator transmitter operated as intended.)	1
- Submerged (The emergency location beacon-aircraft or emergency locator transmitter did not operated as intended because it was submerged.)	8
- Terrain shielding (The emergency location beacon-aircraft or emergency locator transmitter did not operate as intended because of terrain shielding.)	7
- Other (The emergency location beacon-aircraft or emergency locator transmitter was affected by factors other than those listed above.)	98
- Unknown (The emergency location beacon-aircraft or emergency locator transmitter effectiveness was not established.)	99

Id: 173 **Wreckage site locating method (Locating method)**

Predefined value list

The method by which the wreckage site was found.

- ATC computer generated (The wreckage was located by an ATC computer generated location.)	9

- ELB-A (ELT) only (The wreckage was located by emergency location beacon-aircraft or emergency locator transmitter only.) 1

  Emergency locator transmitter (ELT). A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:
  Automatic fixed ELT (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft.

  Automatic portable ELT (ELT(AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

  Automatic deployable ELT (ELT(AD)). An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

  Survival ELT (ELT(S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.
- HF radio (The wreckage was located using HF radio.) 2
- SAR satellite and ELB-A (The wreckage was located by SAR satellite and emergency location beacon-aircraft or emergency locator transmitter.) 7

  Emergency locator transmitter (ELT). A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:
  Automatic fixed ELT (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft.

  Automatic portable ELT (ELT(AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

  Automatic deployable ELT (ELT(AD)). An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

  Survival ELT (ELT(S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.
- Sighting of occupants (The wreckage was located by sighting of the occupants.) 6
- Sighting of wreckage (The wreckage was located by sighting.) 5
- Smoke/signal sighted (The wreckage was located by smoke/signal/fire sighting.) 8
- UHF radio (The wreckage was located using UHF radio.) 4
- VHF radio (The wreckage was located using VHF radio.) 3
- Other (The wreckage was located by a means other than one of those listed above.) 98
- Unknown (The means by which the wreckage site was located is unknown.) 99

Section: Search method and success. (Search)

This section provides information on the search methods used and their success in the search for the aircraft.

Id: 514 **Information on the difficulties encountered during the search. Specify as many as required. (Search difficulties)**

Predefined value list

- None (No difficulties were encountered during the search.)	97
- Command problem (The search was made difficult by a command problem.)	11
- Communication problem (The search was made difficult by communication problems.)	12
- Co-ordination problem (The search was made difficult by co-ordination problems.)	9
- Darkness (The search was made difficult by darkness.)	2
- Equipment failed (The search was made difficult by equipment failure.)	14
- Inadequate equipment (The search was made difficult by inadequate equipment.)	7
- Inadequate planning (The search was made difficult by inadequate planning.)	10
- Inadequate training (The search was made difficult by inadequate training.)	6
- Maps inadeq/inacc (The search was made difficult by inadequate or inaccurate maps.)	5
- Obstacles (The search was made difficult by obstacles.)	4
- Sea state (The search was made difficult by the sea state.)	15
- Terrain (The search was made difficult by terrain.)	1
- Traffic (The search was made difficult by traffic.)	8
- Unfamiliarity terrain (The search was made difficult by unfamiliarity with the terrain.)	3
- Weather/visibility (The search was made difficult by weather/visibility.)	13
- Other (The search was made difficult by a factor other than any of those listed above.)	98
- Unknown (The type of difficulty encountered by the search team was not established.)	99

Id: 516 **Information on the result of the search, i.e. whether the search was successful or not. (Search result)**

Predefined value list

- Successful (The search was successful.) *Both the aircraft and its occupants were located.*	1
- Not successful (The search was not successful.) *The search did not locate the aircraft and all of its occupants.*	2

Id: 515 **Information on the search method applied in the search, e.g. air search or sea search (Search method)**

Predefined value list

- Air (The search was conducted using aircraft.)	1
- Ground (foot) (The search was conducted on foot.)	4
- Ground (vehicle) (The search was conducted using vehicles on the ground.)	3
- Sea (The search was conducted using a surface vessels on the sea.)	2
- Unknown (The method used for the search is not known.)	99

Id: 517 **The number of hours that the search was conducted. (Search time)**

Manual entry

Section: Seats and restraint system. (Seats/restraint system)

This section provides information on the availability and effectiveness of seats and restraint systems.

Id: 72 **Co-pilot restraint system (Co-pilot restr. system)**

Predefined value list

The availability and use of restraint systems for the co-pilot.

- Lap belt (The co-pilot's restraint system was a lap belt.) 1
- Upper body restraint (The co-pilot's restraint system included upper body restraint.) 2
- Upper restraint unused (The co-pilot's restraint system included upper body restraint but this was not used.) 3
- Unknown (The type of restraint system provided for the co-pilot was not established.) 99

Id: 206 **Number of restraint systems that failed (Nr failed restr. systems)**

Manual entry

Information on the number of restraint systems that failed on this aircraft

Id: 207 **Number of seats that failed (Nr of seats that failed)**

Manual entry

Information on the number of seats that failed on this aircraft.

Id: 217 **Passenger restraint system (Pax restraint system)**

Predefined value list

Information on the type of restraint system available to the passengers, e.g. a lap belt or a system with upper body restraint.

- Lap belt (The passenger restraint system was a lap belt.) 1
- Upper body restraint (The passenger restraint system included upper body restraint.) 2
- Unknown (The type of passenger restraint system is unknown.) 99

Id: 225 **Pilot-in-command restraint system (Pilot restraint system)**

Predefined value list

The availability and use of restraint systems for the pilot-in-command.

- Lap belt (The pilot had a lap belt restraint system.) 1
- Upper restraint unused (The pilot's upper body restraint system was not used.) 3
- Upper body restraint (The pilot had an upper body restraint system.) 2
- Unknown (The type and or use of the pilot's restraint system was not determined.) 99

Section: Survivability. (Survivability)

This section provides information on whether, in the judgement of the investigation, the accident was capable of being survived. Whether anyone was fatally injured is not the essence of this question as there may not be any survivors in a survivable accident.

Id: 284 **Survivability in the aircraft (Survivability)**

Predefined value list

Information whether, in the judgement of the investigation, the accident was capable of being survived. Whether anyone was fatally injured is not the essence of this question as there may not be any survivors in a survivable accident.

- Yes (The occurrence was survivable.) 1
- No (The occurrence was not survivable.) 2
- Unknown (Whether the occurrence was survivable is unknown.) 99

Topic: Weather

Section: Clouds. (Clouds)

This section provides information on cloud coverage and cloud height.

Id: 140 **Height of cloud base (Height of cloud base)**

Manual entry

Ceiling. height of the lowest opaque layer of clouds.

Height: The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Id: 266 **The amount of cloud (Cloud amount)**

Predefined value list

- Sky clear (The sky was clear.) 1
- Few clouds (1/8-2/8) (Few clouds : [one to two oktas]) 2

  Few: sky cover classification for aviation weather observations, descriptive of a sky cover of 1/8 to 2/8. This is applied only when obscuring phenomenon aloft are present--that is, not when obscuring phenomenon are surface-based, such as fog.
- Scattered (3/8 to 4/8) (The cloud coverage was broken. [three to four oktas].) 6
- Broken (5/8 to 7/8) (The cloud coverage was broken. [five to seven oktas].) 3
- Overcast (The sky condition was overcast.) 4

  Overcast: Sky condition when 9/10 or 10/10 of the sky is covered.
- Sky obscured (The sky was obscured.) 5
- Unknown (The sky condition is unknown.) 99

Section: General weather conditions (General weather conditions)

This section provides the information on the general weather conditions (VMC/IMC), light conditions as well as the phase of flight of the aircraft to which the weather information pertains.

Id: 168 Light conditions (Light conditions)

Predefined value list

The light conditions at the time of the occurrence.

- Dawn (The light condition was dawn.) 1

  Dawn is the first appearance of light in the sky before sunrise, or the time when it appears; the beginning of daylight; morning twilight, daybreak.

  Twilight: The intervals of incomplete darkness following sunset and preceding sunrise. The time at which evening twilight ends or morning twilight begins is determined by arbritrary convention, and several kinds of twilight have been defined and used; most commonly civil, nautical, and astronomical twilight.

  1) Civil Twilight: The period of time before sunrise and after sunset when the sun is not more than 6 degrees below the horizon.

  2) Nautical Twilight: The period of time before sunrise and after sunset when the sun is not more than 12 degrees below the horizon.

  3) Astronomical Twilight: The period of time before sunrise and sunset when the sun is not more than 18 degrees below the horizon.

- Daylight (The light condition was daylight.) 2

  Daylight is the light available naturally between sunrise and sunset.

- Dusk/twilight (The light condition was dusk/twilight.) 3

  Dusk is the darker stage of twilight before it is quite dark at night.

  Twilight: The intervals of incomplete darkness following sunset and preceding sunrise. The time at which evening twilight ends or morning twilight begins is determined by arbritrary convention, and several kinds of twilight have been defined and used; most commonly civil, nautical, and astronomical twilight.

  1) Civil Twilight: The period of time before sunrise and after sunset when the sun is not more than 6 degrees below the horizon.

  2) Nautical Twilight: The period of time before sunrise and after sunset when the sun is not more than 12 degrees below the horizon.

  3) Astronomical Twilight: The period of time before sunrise and sunset when the sun is not more than 18 degrees below the horizon.

- Night/dark (The light condition was a dark night.) 5

  Night is that part of the natural day (of 24 hours) during which no light is received from the sun; the time between the end of evening twilight and the beginning of morning twilight.

- Night/moonlight (The light condition was a moonlit night.) 4

  Night is that part of the natural day (of 24 hours) during which no light is received from the sun; the time between the end of evening twilight and the beginning of morning twilight.

- Unknown (The light condition at the time of the occurrence is unknown.) 99

Id: 310 **Visibility (Visibility)**

Manual entry

Visibility for aeronautical purposes is the greater of: a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background; b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.
N.B. The two distances have different values in air of a given extinction coefficient, and the latter b) varies with the background illumination. The former a) is represented by the meteorological optical range (MOR).
The value 9999 indicates unlimited visibility.

Id: 127 **Weather conditions (Weather conditions)**

Predefined value list

The general weather conditions in the area of the occurrence e.g. VMC, IMC or unknown.

- VMC (The weather conditions were VMC.) 1

  The general weather conditions in the area of the occurrence were visual meteorological conditions (VMC)
  VMC: Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

- IMC (The weather conditions were IMC.) 2

  The general weather conditions in the area of the occurrence were instrument meteorological conditions (IMC).
  IMC: Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.
  Note 1.- The specified minima for visual meteorological conditions are contained in Chapter 4 of Annex 2.
  Note 2.- In a control zone, a VFR flight may proceed under instrument meteorological conditions if and as authorized by air traffic control.

- Unknown (The weather conditions were unknown.) 99

  The general weather conditions in the area of the occurrence were not established.

Id: 606 **Weather relevance (Weather relevant)**

Predefined value list

An indication whether, in the view of the investigation, the weather was relevant to the occurrence.

- No (No - the weather was not relevant.) 2
- Yes (Yes - the weather was relevant.) 1
- Unknown (Unknown if the weather was relevant.) 99

Id: 322 **Wind speed (Wind speed)**

Manual entry

The speed of the wind in knots or kilometres per hour.
Wind is the horizontal movement of air relative to the earth's surface and is caused by variations in temperature and pressure (for instance, air rises as it warms and a cool breeze moves in to take the place of the rising air.) The wind direction is the direction from which the wind is blowing (for example, a north wind comes from the north and blows toward the south.)

Id: 275 **Wind speed measured at (Speed measured at)**

Predefined value list

Information as to where the wind speed was measured I.e. on the surface or at altitude.

- Altitude (The wind speed was measured at the altitude of the occurrence.) 2

  Altitude: The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

- Surface (The wind speed was measured at the surface.) 1
- Unknown (The level at which the wind speed was measured is not known.) 99

Section: Precipitation and other weather phenomena (Precipitation and

This section provides information on the type of precipitation and its intensity at the time of the occurrence as well as on the type and intensity of other weather phenomena.

Id: 607 Characteristics (Characteristics)

Predefined value list

- Blowing (Blowing.) 4
- Freezing (The weather characteristics were freezing temperatures.) 3
- Low drifting (Low drifting.) 5
- Partial (Partial.) 8
- Patches (Patches.) 7
- Shallow (Shallow.) 6
- Showers (The weather characteristics were showers.) 2
- Thunderstorm (The weather characteristics were a thunderstorm.) 1

Id: 230 Precipitation intensity (Precipitation intensity)

Predefined value list

The intensity of the precipitation. Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

- None (There was no precipitation.) 97

  Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

- Light (The intensity of precipitation was light.) 1

  Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

  Light:
  Rain: Individual drops easily identified, puddles form slowly, small streams may flow in gutters.
  Drizzle: Can be felt on the face but is not visible. Produces little run off from roads or roofs. Generally visibility is reduced, but not less than 1000 m.
  Snow: Small sparse flakes. Visibility generally reduced but not less than 1000 m.
  Hail: Sparse hailstones of small size, often mixed with rain.

- Moderate (The intensity of precipitation was moderate.) 2

  Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

  Moderate:
  Rain: Rapidly forming puddles, down pipes flowing freely, some spray visible over hard surfaces.
  Drizzle: Window and road surfaces streaming with moisture. Visibility generally between 400 and 1000 m.
  Snow: Large numerous flakes and visibility generally between 400-1000 m.
  Hail: Particles numerous enough to whiten the ground.

- Heavy (The intensity of precipitation was heavy.) 3

  Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

  Heavy:
  Rain: Falls in sheets, misty spray over hard surfaces, may cause roaring noise on roof.
  Drizzle: Visibility reduced to less than 400 m.
  Snow: Numerous flakes of all sizes. Visibility generally reduced below 400 m.
  Hail: A proportion of the hailstones exceed 6 mm diameter.

- Unknown (The intensity of the precipitation was unknown.) 99

  Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

Id: 299 Precipitation type (Precipitation type)

Predefined value list

The type of precipitation i.e. drizzle, rain, snow, snow grains, ice pellets, ice crystals hail or small hail or snow pellets. ICAO Annex 3.
Precipitation: Precipitation is moisture released from the atmosphere especially in large enough particles to fall sensibly except fog and mist. e.g. hail, snow, rain sleet and drizzle.

- Haze (Haze.) 17

  Haze consists of fine particles of dust and pollution suspended in the atmosphere, and is distinguished from fog by its bluish or yellowish tinge.

- Drizzle (The precipitation type was drizzle.) 7

  Fairly uniform precipitation (rain) composed exclusively of very small water droplets (less than 0.5 mm in diameter) very close to one another.
  In drizzle, the water droplets are fine and minute--much smaller than in rain--and appear to float in the air.

- Rain (The precipitation type was rain.) 1

  Rain is precipitation in the form of water droplets making a noticeable impact. Ranges in size from 1 to 5.5 mm.

- Rain shower (The precipitation was in form of a rain shower.) 8

  Rain shower: Liquid precipitation that stops and starts suddenly and varies widely in intensity, and is gone in less than an hour.

- Freezing drizzle/rain (The precipitation type was freezing drizzle/rain.) 5

  Freezing rain/drizzle is the precipitation of supercooled raindrops.Freezing rain or freezing drizzle freezes on impact and forms a coat of ice on the ground and on the objects they strike. They occur when the air temperature is below zero Celsius near the ground but above zero Celsius higher up.

- Rain and snow (The precipitation type was rain and snow.) 6

  Mixture of rain and snow.
  Rain:Precipitation of liquid water drops greater than 0.5 mm in diameter.
  Snow: Precipitation of ice crystals, most of which are branched (sometimes star shaped).

- Small hail/snow pellets (The precipitation consisted of small hail and/or snow pellets.) 19

  Snow pellets are brittle and easily crushed; when they fall on hard ground, they bounce and often break up. They always occur in showers and are often accompanied by snow flakes or rain drops, when the surface temperature is around zero Celsius.

- Ice crystals (Ice crystals.) 18

  Ice crystals are tiny sprinkles that sparkle in the sunshine like diamond dust and hang in the air.

- Hail (The precipitation type was hail.) 2

  Hail is precipitation in the form of lumps of ice, larger than ice pellets, usually the size of peas or cherries but sometimes as large as oranges. Often associatedwith thunderstorms, hail forms when drafts carry raindrops upward into extremely cold regions of the atmosphere. There, the drops freeze and merge into lumps of ice. When the lumps become too heavy to be supported by the updraft, they fall to the ground at high speeds.

- Snow (The precipitation type was snow.) 3

  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.
  When the term snow is used without qualification, it means precipitation of significant duration and extent. A flurry or snow shower is a snowfall that suddenly stops and starts and changes rapidly in intensity; the accumulation and extent of the snow are limited. A snow squall brings strong winds, flurries and poor visibility.
  Blowing snow is lifted by the wind from the earth's surface to a height of 2 m or more, whereas drifting snow is blown to a height of less than 2 m. A blizzard is a severe storm that lasts three or more hours, and brings low temperatures, strong winds and poor visibility due to blowing snow.

- Ice pellets (The precipitation type was ice pellets.) 4

  Ice pellets are tiny, translucent frozen raindrops or snowflakes, or snow encased in ice, which bounce and make a sound on contact with the ground.

- Snow shower (The precipitation type was a snow shower.) 9

  Snow shower: Frozen precipitation in the form of snow, characterized by its sudden beginning and ending. It is
  reported as "SHSN" in an observation and on the METAR.
  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.

- Snow grains (The precipitation consisted of snow grains.) 16

  Snow grains are minute, white and opaque grains of ice. When they hit hardground, they do not bounce or shatter. They usually fall in very small quantities, and never in the form of a shower.
  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.

- Dust sand/whirls (Dust sand/whirls.) 20
- Sand storm (Sand storm.) 21
- Dust/sandstorm (The weather phenomenon present was a dust/sandstorm.) 13

  Dust storm: A severe weather condition characterized by strong winds and dust-filled air over a large area.V Visibility is reduced to between 5/8ths and 5/16ths statute mile. It is reported as "DS" in an observation and on the METAR.

- Dust storm (The weather phenomenon present was a dust storm.) 14

  A storm which carries large amounts of sand into the atmosphere. Ensemble of particles of sand energetically lifted to great heights by a strong and turbulent wind.

- Tornado or waterspout (The weather phenomenon present was a tornado or waterspout.) 10

  A tornado is a localized violent wind with such low pressure in the core as to explode structures in its path. The tornado is usually pendant beneath a cumulonimbus cloud. A tornado appears as a violent funnel-shaped wind vortex in the lower atmosphere with upward spiralling winds of high speeds. The tornado usually appears from a bulge in the base of a thunderstorm cloud. It has a typical width of tens to hundreds of metres and a lifespan of minutes to hours. In extent, it is one of the smallest of all storms, but in violence, it is among the world's most severe.
  Waterspout: A violently rotating column of air, usually a pendant to a cumulus or cumulonimbus cloud, over a body of water with its circulation reaching the water. In the summer and spring, these phenomena are usually "tornadoes over water" that have been generated by thunderstorms. In the fall months, these most often begin as "cold air funnels", being generated by a cold air mass passing over much warmer waters. Such waterspouts are generally much less intense than tornadoes and usually dissipate upon approaching shore. Waterspouts are most common over tropical or subtropical waters. The exact definition of waterspout is debatable. In most cases the term is reserved for small vortices over water that are not associated with storm-scale rotation (i.e., they are the water-based equivalent of landspouts). But there is sufficient justification for calling virtually any rotating column of air a waterspout if it is in contact with a water surface.

- Squall (The weather phenomenon present was a squall.) 11

  A line squall is a violent cold front characterized by a sudden drop in temperature, a rise in pressure, thunderstorms and especially severe vertical and other gusts.
  A squall comprises a rather sudden increase of the mean wind speed which lasts for several minutes at least before the mean wind returns to near its previous value. A squall may include many gusts.

- Thunderstorm (The weather phenomenon present was a thunderstorm.) 12

  Thunderstorm: Produced by a cumulonimbus cloud, it is a microscale event of relatively short duration characterized by thunder, lightning, gusty surface winds, turbulence, hail, icing, precipitation, moderate to extreme up and downdrafts, and under the most severe conditions, tornadoes.

- Smoke (Smoke.) 15
- Other (The precipitation type was other than those listed above.) 98
- Unknown (The type of precipitation was not determined.) 99

Section: Temperature. (Temperature)

This section provides information on air temperature and dew point temperature.

Id: 85 **Dew point temperature (Dew point)**

Manual entry

The temperature to which the air must be cooled to become saturated by the water vapour already present in the air.

Id: 287 **The air temperature (Air temperature)**

Manual entry

Section: Weather reports (Weather reports)

This section provides information on the source of weather reports and their validity.

Id: 11 **Aerodrome weather report type (Report type)**

Predefined value list

The type of weather report related to the aerodrome.

- METAR (The aerodrome weather report type was a METAR.) 1
  A METAR is an aviation routine weather report (in aeronautical meteorological code).
- SIGMET (The aerodrome weather report type was a SIGMET.) 4
  A SIGMET is information concerning en-route weather phenomena which may affect the safety of aircraft operations.
- SPECI (The aerodrome weather report type was a SPECI.) 3
  A SPECI is an aviation selected special weather report (in aeronautical meteorological code).
- TAF (The aerodrome weather report type was a TAF.) 2
  A TAF is a Terminal Area (Aerodrome) Forecast.
- Pilot reported (The aerodrome weather report was a pilot's report of the actual aerodrome weather conditions.) 5
- Other (The aerodrome weather report type was other than one of the above.) 98
- Unknown (The type of aerodrome weather report has not been established.) 99

Id: 12 **Aerodrome weather report validity (Report validity)**

Predefined value list

- Valid (The aerodrome weather report was well founded and fully applicable to the particular conditions.) 1
- Not available (The aerodrome weather report was not available.) 4
  There was no aerodrome weather report.
- Not valid (The aerodrome weather report was not well founded nor fully applicable to the particular conditions.) 2
- Corrupted (The aerodrome weather report was altered from the original or correct condition by ignorance, carelessness or other circumstances.) 3

Id: 177 **Aviation routine weather report (in aeronautical meteorological code) (Content wx report)**

Manual entry

The aviation routine weather report (in aeronautical meteorological code). can be entered in this section in free text.

Topic: Wreckage/impact

Section: Aircraft recovery. (Recovery of aircraft)

This sections provides information on the recovery of the aircraft.

Id: 243 **The recovery status of the aircraft (A/c recovery status)**

Predefined value list

The recovery status of the aircraft, i.e. whether the aircraft was recovered in full, partially or not at all.

- Complete (The complete aircraft was recovered.) 1
- Partial (The aircraft was only partially recovered.) 2
- not recovered (The aircraft was not recovered) 3

  The aircraft was not recovered
- Unknown (The extent of the aircraft recovered is unknown.) 99

Section: Ground impact geometry. (Ground impact)

This sections provides information on attitude, speed and impact angle of the aircraft at ground impact. This information should be completed for all occurrences involving impact with the ground.

Id: 30 **Break-up on impact other than an impact with water (Break-up on impact)**

Predefined value list

This provides a measure for the loss of integrity sustained by the aircraft when impacting the ground, i.e. complete, minor, none, substantial unknown.

- Complete (The aircraft was destroyed by the impact with a surface other than water.) 3
- Substantial (The damage sustained in an impact, other than with water, was substantial.) 2

  The damage sustained by the aircraft at impact was damage which adversely affected the structural strength, performance or flight characteristics of the aircraft and would normally require major repair or replacement of the affected component.

  Major repair: a repair
  - (1) That, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or
  - (2) That is not done according to accepted practices or cannot be done by elementary operations.
- Minor (The impact damage (other than with water) was minor.) 1

  The aircraft sustained damage at impact which was insufficient to adversely affected the structural strength, performance or flight characteristics of the aircraft or to require major repair or replacement of the affected component.
- None (The aircraft was undamaged in the occurrence.) 97
- Unknown (The extent of the damage sustained by the aircraft at impact was unknown.) 99

Id: 83 **Descent rate at ground impact (Descent rate)**

Predefined value list

The rate of descent of the aircraft at the time of impact with the ground, i.e. high, low or unknown.

- High (The descent rate at ground impact exceeded the designed maximum for a controlled touchdown.) 2
- Low (The descent rate at ground impact was not in excess of the designed maximum for a controlled touchdown.) 1
- Unknown (The descent rate at ground impact was not determined.) 99

Id: 84 **Descent speed at ground impact (Descent speed)**

Manual entry

The speed of the aircraft at the time of impact with the ground.

Id: 36 **Impact angle (Impact angle)**

Predefined value list

The angle between the flight path of the aircraft and the surface of the ground at impact e.g. high, intermediate or low.

- High (The angle between the flight path of the aircraft and the surface of the ground at impact after adjustment for the aircraft deck angle was 65 to 90 degrees.) 3
- Intermediate (The angle between the flight path of the aircraft and the surface of the ground at impact after adjustment for the aircraft deck angle was 35 to 65 degrees.) 2
- Low (The angle between the flight path of the aircraft and the surface of the ground at impact after adjustment for the aircraft deck angle was less than 35 degrees.) 1

- Unknown (The angle between the flight path of the aircraft and the surface of the ground at impact after adjustment for the aircraft deck angle was not determined.) 99

Id: 227 **Pitch attitude ground impact (Pitch attitude)**

Predefined value list

The pitch attitude of the aircraft at the time of impact with the ground, e.g. nose up, nose down or nose level.

- Nose level (The aircraft's pitch attitude at impact was nose level.) 2
  N.B. Pitch attitude is relative to the horizontal not the surface against which it impacted.
- Nose down (The aircraft's pitch attitude at impact was nose down.) 3
  N.B. Pitch attitude is relative to the horizontal not the surface against which it impacted.
- Nose up (The aircraft's pitch attitude at impact with the ground was nose up.) 1
  N.B. Pitch attitude is relative to the horizontal not the surface against which it impacted.
- Unknown (The aircraft's pitch attitude at impact was unknown.) 99

Id: 251 **Roll attitude at ground impact (Roll attitude)**

Predefined value list

Roll attitude of the aircraft at ground impact, i.e. inverted, moderate bank, slight bank, steep bank or wings level.

- Wings level (The roll attitude of the aircraft at ground impact was wings level.) 1
- Slight bank (0-30) (The roll attitude of the aircraft at ground impact was a bank of 30 degrees or less.) 2
- Moderate bank (31-64) (The roll attitude of the aircraft at ground impact was more than thirty degrees but less than 65 degrees.) 3
- Steep bank (65+) (The roll attitude of the aircraft at ground impact was 65 degrees or more.) 4
- Inverted (>90) (The roll attitude of the aircraft at ground impact was inverted.) 5
  This includes all roll attitudes greater than 90 degrees left or right.
- Unknown (The roll attitude of the aircraft at ground impact is unknown.) 99

Id: 271 **Specific impact angle (Impact angle specific)**

Manual entry

The angle between the flight path and the surface at impact (in degrees).

Id: 226 **Specific pitch angle ground impact (Pitch angle specific)**

Manual entry

The pitch angle of the aircraft at the time of impact with the ground (in degrees).

Id: 250 **Specific roll angle ground impact (Roll angle specific)**

Manual entry

The roll angle of the aircraft at impact [in degrees].

Id: 272 **Speed at ground impact (Speed at impact)**

Manual entry

The speed of the aircraft at ground impact in km/h.

Id: 274 **Speed level at ground impact (Speed level)**

Predefined value list

Information on the general measure of the speed at impact, i.e. high, low or unknown. To be used when precise information is not at hand.

- High (The speed at ground impact was greater than normal cruising speed.) 2
- Low (The speed at ground impact was less than normal cruising speed.) 1
- Unknown (The speed at ground impact is unknown.) 99

Id: 296 Terrain type where aircraft came to rest (Terrain type)

Predefined value list

Information on the type of terrain where the aircraft came to rest, e.g. hilly, level/flat, mountainous, rolling or water covered.

- Level/flat (The aircraft came to rest on level/flat terrain.) 4
- Rolling (The aircraft came to rest on rolling terrain.) 3
- Hilly (The aircraft came to rest in hilly terrain.) 2

  Heights which in one locality are called mountains being in another reckoned merely as hills. In Great Britain ground which rises to heights greater than 2 000 feet is generally called mountainous; but, in India, ranges of 5 000 and even 10 000 feet are commonly called "hills", in contrast with the Himalayan Mountains, many peaks of which rise beyond 20 000 feet.

- Mountainous (The aircraft came to rest in mountainous terrain.) 1

  Mountainous means comprising natural elevations of the earth's surface rising more or less steeply above the level of the surrounding land. Restricted to heights of greater elevation than what are called hills; but the discrimination is a matter of local usage, heights which in one locality are called mountains being in another reckoned merely as hills. In Great Britain ground which rises to heights greater than 2 000 feet is generally called mountainous; but, in India, ranges of 5 000 and even 10 000 feet are commonly called "hills", in contrast with the Himalayan Mountains, many peaks of which rise beyond 20 000 feet.

- Water (The aircraft came to rest on water.) 5
- Other (The aircraft came to rest on a type of terrain other than those listed above.) 98
- Unknown (The type of terrain where the aircraft came to rest was not established.) 99

Section: Point where the aircraft exited from the runway. (Runway excu

This sections provides information on the distance from the threshold to the point where the aircraft exited the runway as well as the direction in which the aircraft exited the runway. This information should be provided in all cases of runway excursions.

Id: 288 **Distance threshold to aircraft exit point (Threshold to a/c exit)**

Manual entry

The distance from the threshold to the point where the aircraft left the runway. Only enter in those cases where the aircraft exited the runway without using the approved runway exits. Threshold. The beginning of that portion of the runway usable for landing.

Id: 252 **The direction in which the aircraft left the runway (Aircraft exited runway at)**

Predefined value list

The direction in which the aircraft left the runway.

- Left side (The aircraft departed from the runway's left side.)	1
- Right side (The aircraft departed from the runway's right side.)	2
- End (The aircraft departed from the runway's end.)	3
- Unknown (The boundary of the runway from which the aircraft departed is unknown.)	99

Section: Terrain conditions at the point where the aircraft came to rest.

This sections provides information on the condition of the terrain at the point where the aircraft came to rest.

Id: 93 **Elevation of the terrain where aircraft came to rest (Elevation terrain)**

Manual entry

The elevation of the terrain where aircraft came to rest [in metres].
Elevation. The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.

Id: 283 **Surface type where aircraft came to rest (Surface type)**

Predefined value list

Information on the surface type where aircraft came to rest, e.g. snow/ice, tall vegetation, open waste or built up area.

- Built-up area/houses (The aircraft came to rest in a built-up area.) 10
- Crops/cultivated field (The surface on which the aircraft came to rest was crops/cultivated field.) 3
- Grass (The surface on which the aircraft came to rest was grass.) 2
- Open water (The surface on which the aircraft came to rest was open water.) 8
- Pavement (The surface on which the aircraft came to rest was a pavement.) 7
- Sand (The surface on which the aircraft came to rest was sand.) 4
- Sheltered water (The surface on which the aircraft came to rest was sheltered water.) 9
- Snow/ice (The surface on which the aircraft came to rest was snow/ice covered.) 6

  Snow is precipitation in the form of feathery ice crystals or large agglomerations in the form of flakes. Snow is composed of millions of star-shaped hexagonal ice crystals.
  Snow (on the ground). Dry snow is snow which can be blown if loose or, if compacted by hand, will fall apart again upon release. Wet snow is snow which, if compacted by hand, will stick together and tend to or form a snowball. Compacted snow is snow which has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up.
- Swamp (The surface on which the aircraft came to rest was swamp.) 5
- Tall vegetation (The aircraft came to rest among tall vegetation.) 11
- Wooded/tree covered (The surface on which the aircraft came to rest was wooded/tree covered.) 1
- Other (The aircraft came to rest on a surface type other than one of those listed above.) 98
- Unknown (The type of surface on which the aircraft came to rest is unknown.) 99

Id: 296 **Terrain type where aircraft came to rest (Terrain type)**

Predefined value list

Information on the type of terrain where the aircraft came to rest, e.g. hilly, level/flat, mountainous, rolling or water covered.

- Level/flat (The aircraft came to rest on level/flat terrain.) 4
- Rolling (The aircraft came to rest on rolling terrain.) 3
- Hilly (The aircraft came to rest in hilly terrain.) 2

  Heights which in one locality are called mountains being in another reckoned merely as hills. In Great Britain ground which rises to heights greater than 2 000 feet is generally called mountainous; but, in India, ranges of 5 000 and even 10 000 feet are commonly called "hills", in contrast with the Himalayan Mountains, many peaks of which rise beyond 20 000 feet.

- Mountainous (The aircraft came to rest in mountainous terrain.) 1

  Mountainous means comprising natural elevations of the earth's surface rising more or less steeply above the level of the surrounding land. Restricted to heights of greater elevation than what are called hills; but the discrimination is a matter of local usage, heights which in one locality are called mountains being in another reckoned merely as hills. In Great Britain ground which rises to heights greater than 2 000 feet is generally called mountainous; but, in India, ranges of 5 000 and even 10 000 feet are commonly called "hills", in contrast with the Himalayan Mountains, many peaks of which rise beyond 20 000 feet.

- Water (The aircraft came to rest on water.) 5
- Other (The aircraft came to rest on a type of terrain other than those listed above.) 98
- Unknown (The type of terrain where the aircraft came to rest was not established.) 99

Id: 315 Water depth where aircraft came to rest (Water depth)

Manual entry

The depth of water [if any] at the point where aircraft came to rest. Only fill in if the aircraft came to rest in water.

Section: Wreckage position. (Wreckage position)

This sections provides information on the position of the aircraft/wreckage at the end of the accident/incident sequence. The information is to be provided in relation to the aerodrome as well as in relation to the runway in use by this aircraft.

Id: 86 **Distance of the wreckage from the runway threshold (Distance threshold)**

Manual entry

The position of the wreckage in polar coordinates is provided by giving the bearing from the runway heading and the distance from the threshold. This field provides the information on the distance from the threshold.
Threshold. The beginning of that portion of the runway usable for landing.

Id: 282 **Length wreckage trail (Length wreckage trail)**

Manual entry

The distance from the first ground contact made in the occurrence to the point where the aircraft came to rest.

Id: 53 **Wreckage bearing from the runway heading (Bearing rwy heading)**

Manual entry

The position of the wreckage in polar coordinates is provided by giving the bearing from the runway heading and the distance from the threshold. This field provides the information of the bearing from the runway heading. N.B. do not give the magnetic bearing from the runway threshold.

Id: 325 **Wreckage location across (Location across)**

Manual entry

The location of the wreckage measured as the distance from the centre line of the runway in use. Use positive numbers for displacement to the right and negative for displacements to the left. (Cartesian co-ordinates, x-axis being the runway). The co-ordinates of a point (in a plane) are its distances from two fixed intersecting straight lines (the axes of co-ordinates), the distance from each axis being measured in a direction parallel to the other axis.

Id: 326 **Wreckage location along (Location along)**

Manual entry

The distance of the point where the aircraft came to rest from the threshold of the runway measured along the runway. (Cartesian co-ordinates, x-axis being the runway). The co-ordinates of a point (in a plane) are its distances from two fixed intersecting straight lines (the axes of co-ordinates), the distance from each axis being measured in a direction parallel to the other axis.

Id: 170 **Wreckage location related to aerodrome (Wreckage location)**

Predefined value list

The location where the aircraft came to rest in relation to the aerodrome in use, i.e. less than 10 km from the aerodrome, more than 10 km from the aerodrome or on the aerodrome/airstrip.

- On aerodrome/airstrip (The wreckage was on the aerodrome/airstrip.) 1
- Off aerodr < 10 km (The wreckage was off the aerodrome by less than 10 km.) 2

- Off aerodr > 10 km (The wreckage was off the aerodrome by more than 10 km.) 3
- Unknown (The distance of the wreckage from the aerodrome runway is unknown.) 99

Id: 229 Wreckage position (graph) (Wreckage position)

Predefined value list

The number, showing the position of the wreckage in relation to the runway in use, plotted on the diagram on the wreckage position page.

- off dep end > 1000 m (off dep end > 1000 m) 1
  off dep end > 1000 m
- to left of rwy <150 m from rwy centre (to left of rwy <150 m from rwy centre) 10
  to left of rwy <150 m from rwy centre
- to left of rwy > 150 m from rwy centre (to left of rwy > 150 m from rwy centre) 11
  to left of rwy > 150 m from rwy centre
- < 1000 m from app end, > 150 m to right of rwy centre (< 1000 m from app end, > 150 m to right of rwy centre) 12
  < 1000 m from app end, > 150 m to right of rwy centre
- < 1000 m from app end, < 150 m to right of rwy centre (< 1000 m from app end, < 150 m to right of rwy centre) 13
  < 1000 m from app end, < 150 m to right of rwy centre
- < 1000 m from app end, on extended rwy centre line (< 1000 m from app end, on extended rwy centre line) 14
  < 1000 m from app end, on extended rwy centre line
- < 1000 m from app end, < 150 m to left of rwy centre (< 1000 m from app end, < 150 m to left of rwy centre) 15
  < 1000 m from app end, < 150 m to left of rwy centre
- < 1000 m from app end, > 150 m to left of rwy centre (< 1000 m from app end, > 150 m to left of rwy centre) 16
  < 1000 m from app end, > 150 m to left of rwy centre
- > 1000 m from approach end of the runway (> 1000 m from approach end of the runway) 17
  > 1000 m from approach end of the runway
- off dep end > 150 m to right < 1000 m from dep end (off dep end > 150 m to right < 1000 m from dep end) 2
  off dep end > 150 m to right > 1000 m from dep end
- off dep end < 150 m to right < 1000 m from dep (off dep end < 150 m to right < 1000 m from dep) 3
  off dep end < 150 m to right > 1000 m from dep
- off dep end , on rwy centre line < 1000 m from dep end (off dep end , on rwy centre line < 1000 m from dep end) 4
  off dep end , on rwy centre line > 1000 m from dep end
- off dep end < 150 m to left < 1000 m from dep (off dep end < 150 m to left < 1000 m from dep) 5
  off dep end < 150 m to left > 1000 m from dep
- off dep end > 150 m to left < 1000 m from dep end (off dep end > 150 m to left < 1000 m from dep end) 6
  off dep end > 150 m to left > 1000 m from dep end
- to right of rwy > 150 m from rwy centre (to right of rwy > 150 m from rwy centre) 7
  to right of rwy > 150 m from rwy centre
- to right of rwy <150 m from rwy centre (to right of rwy <150 m from rwy centre) 8
  to right of rwy <150 m from rwy centre
- on runway (on runway) 9
  on runway