Advisory Circular

CAAC Aviation Safety Office

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Standard Categorization of Civil Aviation Incident

民用航空器征候等级划分办法

Note: This English translation covers items applicable to AirAsia operations, and it is for AirAsia internal reference only. In case of any inconsistency between this English translation and the official Chinese version, the official Chinese version shall always prevail.

1. SCOPE OF APPLICATION

This standard applies to civil aircraft (hereafter called 'aircraft'), and is the basis for defining Air Transportation Serious Incident, Air Transportation Incident, General Aviation incident and Aircraft Ground Incident. This standard does not apply to the aircraft used for national rescue, disaster relief and other requisitions. This standard does not apply to illegal flights or willful destruction.

2. TERMS AND DEFINITIONS

2.1 Illegal flights (Not applicable to AirAsia)

2.2 Aircraft Operation Phase

The phase between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked.

2.3 In Flight

The time from which the aircraft uses power for an actual take-off until the termination of the landing process.

2.4 Airport Movement Area

That part of an aerodrome is to be used for the takeoff, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

2.5 Civil Aircraft Incident

An occurrence, other than an accident, associated with the operation of an aircraft, which takes place during the Aircraft operation phase or in the airport movement area, affects or could affect the safety of operation. Including ***Air Transportation Serious Incidents***, ***Air Transportation Incidents***, ***General Aviation Incidents And Aircraft Ground Incidents***.

2.6 Air Transportation Serious Incident

An incident where there was a high probability of an accident, which took place during the **Aircraft operation phase** and was associated with an aircraft operated by a regularly scheduled air carrier (CCAR121) conducting a public transportation flight, or a foreign registered aircraft operated by a foreign air carrier (CCAR129) conducting a public transportation flight within China.

2.7 Air Transportation Incident

An incident, other than a serious incident, which took place during the **Aircraft operation phase** and was associated with an aircraft operated by a regularly scheduled air carrier (CCAR121) conducting a public transportation flight, or a foreign registered aircraft operated by a foreign air carrier (CCAR129) conducting a public transportation flight within China.

2.8 Air Transportation Ground Incident

An incident associated with the operation of an aircraft, which takes place in the Airport movement area, but not in the Aircraft operation phase.

2.9 General Aviation Incident (NA for AirAsia)

An incident which took place during the ***Aircraft operation phase***, and was associated with the operation of an aircraft other than:

a. Operation of an aircraft under scheduled or unscheduled operations(CCAR121 operators)
b. A foreign registered aircraft conducting public transportation to and from China.

2.10 Aircraft Damage

a. When an aircraft sustained damage beyond dispatch standard. (with the exception of tyre damage, or other damages that, after temporary repairings, such as Sanding, filling, sticking metal tape, touch-up paint, flushing, installing temporary fasteners, the aircraft become able to be released.
b. When an aircraft, having a maximum certificated take-off weight less than 5 700 kg, and used for flight training, sustained damage and the cost of repairs was more than 10% of its value or was comparable to a new aircraft's value.

2.11 Injury

Physical, chemical or biological, and other external factors acting on the body, causing damage or dysfunction of tissue and organs, not constituting a serious injury or a minor injury.

[Supreme Court of PRC (Human Body Injury Degree Identification Standard)]

Except: when the injuries are from a natural cause, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew.

2.12 Runway Incursion

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.

Classified by severity:

a. A serious incident in which a collision was narrowly avoided.
b. An incident with reduced separation and significant potential for collision, possibly involving time-critical corrective/evasive response to avoid a collision.
c. An incident characterised by ample time and/or distance to avoid a collision.
d. An incident that met the definition of a runway incursion, such as the incorrect presence of a single vehicle, person or aircraft on the protected area of a surface designated for the landing and take-off of aircraft, but with no immediate safety consequences.
e. An incident where insufficient information, or inconclusive or conflicting evidence, precluded a severity assessment.

3. AIR TRANSPORTATION SERIOUS INCIDENT

3.1 For the purpose of preventing a near-collision or other similar unsafe situation, avoidance manoeuvres were carried out.

Note: In non-radar airspace, the lateral and vertical separation is less than 1/3 of required; in radar/ADS-B airspace the lateral and vertical separation is less than required, with a risk index greater than 90 (inclusive) - (detail see Appendix A of the original regulation).

3.2 Mid-air collision in flight that is not classified as an accident.

Example 2: Collision with a drone.

3.3 Controlled flight into terrain only narrowly avoided.

Example 3: CFIT Risk rating >90 (refer to appendix B in the original regulation)

3.4 An aborted take-off on a closed or occupied runway, a taxiway, or a runway different to that which was assigned

3.5 A take-off from a closed or occupied runway, from a taxiway, or a runway different to that assigned

3.6 Landings or attempted landings on a closed or occupied runway, on a taxiway, or a runway different to that which was assigned.

Note: with the exemption of RTO or Go Around caused by prolonged occupying of the runway by the preceding traffic.

Example 4: Wrongly identify the runway during an instrument approach, leading to go around carried out below DA or MDA.

Example 5: Wrongly identify the runway during a visual approach, leading to go around carried out below 60m AAL.

3.7 Landing with abnormal landing gear configuration that was not classified as an accident.

3.8 Any part of the aircraft except the landing gear came into contact with the ground in flight.

Note: with the exception of

a. Tailstrike without damage to the aircraft
b. Only the tail skid strike the ground without damage to other parts of the aircraft

3.9 The aircraft failed to reach the expected performance during the take-off and initial climb.

3.10 In-flight smoke or fire in the flight deck, cabin or cargo compartment, or engine fire, even though such fires may have been extinguished.

Note: with the exception of:

a. Fire or smoke from the Lithium battery of the Portable electric device, timely detected and handled by the crew properly, without causing aircraft damage or occupational injury

b. Smoke from the light bulb, food or food remains in the oven, smoke caused by liquid droplets on the control panel, contamination in the bleed or air conditioning pipes.

Example 6: Inflight wheel bay, landing gear, Electronic bay, APU fire.
Example 7: Inflight avionic fire or smoke

3.11 Any event requiring the emergency use of oxygen by the crew.

Note: Cabin altitude reached or exceeded the condition that the Oxygen mask will automatically drop.

3.12 Aircraft structural damage, or engine disintegration, including uncontained turbine engine failure, but not classified as an accident.

3.13 Multiple malfunctions of one or more aircraft systems, which seriously affected the operation of the aircraft.

Example 8: Aircraft flying with only alternative electrical power and/or alternate hydraulic system
Example 9: Inflight more than one engine shutdown.

3.14 Flight crew incapacitation in flight, reached one of the conditions below:

a. Leading to the number or qualification of the flight crew lower than the minimum requirement of the aircraft type;
b. Flight crew incapacitation in the operation seat during the critical phase of the flight.

3.15 Any fuel quantity or fuel distribution that required the declaration of an emergency by the pilot.

Example 10: Aircraft landed lower than the emergency fuel.

3.16 CAT A runway incursion

3.17 Take-off or landing incidents, such as under-shooting or over-running the runway, or a runway excursion (to the side).

3.18 System failures, weather phenomena, operation outside the approved flight envelope or any other situation which leads to control difficulty.

Example 11: Inflight stall
Example 12: Any primary flight control system total failure.

3.19 Failure of more than one system in a redundant system, which was mandatory for flight guidance and navigation in flight.

3.20 More than 3 occupants suffer more than a minor injury, due to turbulence or handling of the aircraft by the crew.

3.21 Any other event similar to the above.

Example 13: Take-off, landing or RTO on a runway that is not suitable for the operation.
Example 14: Force landing.
Example 15: Aircraft damage caused by entering CB.
Example 16: Aircraft were unable to maintain safe altitude.
Example 17: Take-off and landing were carried out below the minimum requirement of operation.
Example 18: Aircraft take-off without de-icing when it is required.
Example 19: In inadvertent reverse deployment inflight.

4 AIR TRANSPORTATION INCIDENT

4.1 For the purpose of preventing a near-collision or other similar unsafe situation, avoidance manoeuvres were carried out.

Note: In non-radar airspace, the lateral and vertical separation is less than 1/3 > 1/5 of required; in radar airspace, the lateral and vertical separation is less than required, with a risk index from 75 (inclusive) to 90 (detail see Appendix A of the original regulation).

4.2 Potential Risk of controlled flight into terrain

Note: With risk index from 75 (inclusive) to 90 (detail see Appendix A of the original regulation)

4.3 Approaches towards an occupied or closed runway. When the go-around is initiated below the DH(A) or MDA(H), or below 300 metres AAL in an instrument approach; or when the go-around is initiated between 150 metres and 60 metres AAL, in a visual approach.

Note: With the exemption of Go Around caused by prolonged occupying of the runway by the preceding traffic.

4.4 Tail strike on the runway, during take-off, landing or go around without causing damage to the aircraft, or only required to change the tail skid.

4.5 During phases other than the In-flight phase, smoke or fire in the flight deck, cabin or cargo compartment, or engine fire, even though such fires may have been extinguished.

Note: With the exception of:

a. Fire or smoke from the Lithium battery of the Portable electric device, timely detected and handled by the crew properly, without causing aircraft damage or occupational injury

b. Smoke from the light bulb, food or food remains in the oven, smoke caused by liquid droplets on the control panel, contamination in the bleed or air conditioning pipes.

4.6 Any engine shut down in flight or any failure that required the engine to be shut down in flight.

4.7 Other than the situation in 3.14, other situations of flight crew incapacitation in flight, reached one of the conditions below:

a. Led to other members of the crew exceeded the flight time limitation in the CCAR121.;

b. Flight crew incapacitation in the operation seat, NOT in the critical phase of the flight.

4.8 CAT B runway incursion

4.9 Landing gear not down and locked prior to landing and descent below 100 metres AAL.

4.10 Less than 3 occupants suffer minor injury, due to turbulence or handling of the aircraft by the crew.

4.11 When, during simultaneous parallel runway instrument operation, the flight crew executed a wrong departure procedure or go-around procedure, or the controller issued an incorrect departure or go-around instruction, resulting in an avoidance manoeuvre by the other aircraft.

4.12 When, during simultaneous parallel instrument approaches, an aircraft stray into the No Transgression Zone (NTZ), resulting in an avoidance manoeuvre by the other aircraft.

4.13 Aircraft continue takeoff in a configuration different from the configuration used in the preflight take-off performance calculation.

4.14 When under area control, the Two-way radio communications were lost, for 30 minutes or more; or for 20 minutes or more, which led to insufficient air traffic separation. When under terminal control, the loss of communication for 3 minutes or more, which led to insufficient air traffic separation.

4.15 Flight into PRD airspace, a controlled firing area, or out of the country, by mistake.

4.16 Becoming uncertain about the position of the aircraft (i.e. lost).

4.17 Take-offs with a flight control surface locked, or pothooks, pitot tube covers, static port plugs or tail support stanchions not having been removed.

4.18 Deviating from the designated SID or STAR or flying the wrong SID or STAR leads to avoidance manoeuvres from other traffic.

4.19 Separation of part of the aircraft, which subsequently causes aircraft damage.

4.20 Tire explosion or delamination, causing damage to the aircraft or affecting the control of the aircraft.

4.21 Any Aircraft damage caused by a lightning strike, bird strike, or any other foreign object in flight.

4.22 Any collision with another aircraft, vehicle or any other object, which causes damage to the aircraft (excluding tire damage) or injury, in a phase other than the inflight phase.

4.23 Damage caused by incorrect loading or fixing of cargo, mail, baggage, or a container in the hold, which moves the centre of gravity of the aircraft and affects the flight control.

Note with the exemption of cargo floor or sidewall damage

4.24 Cargo, mail, baggage weight calculation errors or loading errors, leading to the centre of gravity exceeding the limitation inflight.

4.25 Dangerous goods breakage, spillage, leakage or other evidence that the integrity of the package had not been maintained, resulting in aircraft damage or personnel injury.

4.26 Cabin equipment, baggage or any other item that moves during flight, resulting in aircraft damage or injury.

4.27 Aircraft damage caused by excessive load factor in flight.

4.28 Aircraft damage exceeded MTOW or MLGW that caused damage to aircraft.

4.29 Stall warnings in-flight activated for more than 3 seconds, excluding any false warning.

4.30 Aircraft fly with foreign objects, leading to aircraft damage or difficulty of control.

4.31 Any other event similar to the above.

Example 1: Aircraft enter pitch attitude exceeding +35°or -15°, bank angle 60°, or the airspeed is not able to cope with the flying status.

Example 2: Uncommanded stabilizer trimming in flight.

Example 3: Encountered wind shear or wind shear warning during take-off roll or final approach phase, the crew failed to RTO or GA as per required.

5. GENERAL AVIATION INCIDENT (NOT APPLICABLE TO AIRASIA OPERATION)

5.1 Any contract with obstacles during flight, which result in aircraft damage or injury.

5.2 Take-offs from or landings on a closed or occupied runway, taxiway or undesignated runway.

5.3 In the take-off or initial climb significantly does not reach the predetermined performance

5.4 Landing with gear not down and locked.

5.5 Aircraft fire during flight, resulting in aircraft damage or injury.

5.6 Loss of all electric power during flight.

5.7 Engine failure in-flight (except intentionally during training).

5.8 Inflight Crew Incapacitation

5.9 Under-shooting or over-running a runway, or a runway excursion (to the side), which results in aircraft damage or injury.

5.10 Unintentional or intentional release as an emergency measure load or any other load hanging outside the aircraft is equipped with

5.11 Jamming or failure of the main control system during flight.

5.12 Turbulence causing injury or aircraft damage.

5.13 Landings at the wrong airport or on the wrong runway.

5.14 Forced landings.

5.15 Inability to maintain a safe altitude due to system failure, weather phenomena, or any other reason.

5.16 Loss of two-way communications for more than 30 minutes, which causes other aircraft to change their course (excluding special requirements).

5.17 Without permission flight into PRD area or out of the country border, by mistake.

5.18 Taking-off with a locked flight control surface, pothook, pitot tube cover, static port plug or tail support stanchions.

5.19 Becoming uncertain of the position of the aircraft

5.20 Aircraft operation under visual flight rules in instrument weather conditions.

5.21 Vortex ring state in helicopter flight below 300 m.

5.22 Spinning, Dutch roll, or a stall (except intentionally during training).

5.23 Rotor flutter during helicopter operation, causing flight control difficulty.

5.24 Separation of a control surface, engine cowl, door or windshield, or aircraft skin, or the breakage of control wires during flight, which seriously affects the control of the aircraft.

5.25 Flying with foreign object, leading to aircraft damage of occupational injury.

5.26 Any other events similar to the above.

6 Air Transportation Ground Incident

6.1 Aircraft collision with another aircraft, vehicle, equipment or structure, which causes aircraft damage.

6.2 Aircraft movement while not under its own power, and which results in aircraft damage (to itself or to another aircraft).

6.3 Aircraft damage caused by a fire from or explosion of refuelling equipment.

6.4 Aircraft damage caused during the refuelling process, including damage from fire or explosion caused by fuel overflow.

6.5 Aircraft damage caused by a fire from or explosion of a vehicle, equipment or structure.

6.6 Aircraft damage caused by fire from the aircraft, or explosion, leakage from goods carried.

6.7 Aircraft damage sustained during loading or unloading of cargo, catering, baggage, mail or food.

6.8 Any other events similar to the above.

The original regulations also contain 3 appendices, that explained the risk calculation for near airmiss and CFIT, which were not translated.