

Advisory Circular

GUIDANCE ON REPORTING AND INVESTIGATION REQUIREMENTS

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GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices and procedures acceptable to CAAS. An AC may be used, in accordance with section 11 of the Air Navigation Act 1966 (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC provides guidance to demonstrate compliance with, and information related to, the reporting of reportable safety matters and occurrences and investigation of occurrences at the aerodrome.

APPLICABILITY

This AC is applicable to an operator who intends to or holds an aerodrome certificate or heliport certificate.

RELATED REGULATIONS

This AC relates specifically to the Regulations 16 and 17 of the ANR-139.

RELATED ADVISORY CIRCULARS

- AC 139-2-1 Guidance on aerodrome manual and heliport manual

CANCELLATION

This is the first AC issued on the subject.

EFFECTIVE DATE

This AC is effective from 1 March 2023.

OTHER REFERENCES

- ICAO Annex 13 Aircraft accident and incident investigation

1 GUIDANCE FOR REGULATION 16 OF ANR-139 – OBLIGATION TO REPORT REPORTABLE SAFETY MATTERS AND OCCURENCES

1.1 Pursuant to Section 29 of the Air Navigation Act that requires a responsible person to notify CAAS of any reportable safety matter, Regulation 16 of ANR-139 requires the certified operator of an aerodrome to report to CAAS reportable safety matters listed in the Fourth Schedule of ANR-139. The Fourth Schedule of ANR-139 also sets out the notification requirements where reports must be made.

Examples of Reportable Safety Matters

1.2 The Fourth Schedule of ANR-139 broadly lists the reportable safety matters and the list below provides some examples of such safety matters which an operator must report:

- (a) Every accident that occurs at the aerodrome
 - Occurrences which meet the definition in ICAO Annex 13, Aircraft Accident and Incident Investigation
- (b) Every incident of the following nature that occurs at the aerodrome
 - (1) a collision involving an aircraft;
 - This includes damage to aircraft during ground handling operations, aircraft maintenance, and aircraft movement on the ground (e.g. wing clip during taxi, pushback, or towing)
 - (2) a near collision involving an aircraft requiring an avoidance manoeuvre to avoid a collision or an unsafe situation, or where an avoidance action would have been appropriate;
 - This includes incidents which occurred on taxiways
 - (3) an incident that occurs during a critical phase of flight (such as take-off or landing) that has high potential of causing an accident;
 - “Critical phases of flight” for aeroplanes refer to the take-off run, the take-off flight path, the missed approach and the landing roll.
 - “Critical phases of flight” for helicopters refer to taxiing, hovering, take-off, final approach, missed approach and landing.
 - This includes, but is not limited to, aircraft undershoot or overrun, runway incursions or excursions, attempted take-offs and landings on a closed or engaged runway or helipad, and any other incidents occurring on a taxiway or unassigned runway or helipad.
 - (4) suspected contamination of aviation fuel;
 - This includes suspected aviation fuel contamination or incorrect aviation fuel specifications detected during aircraft refuelling or fuel quality check on the fuel installation and suspected fuel contamination at the airport fuel farm.

- (5) aircraft on fire;
 - This includes any fire which occurred on any aircraft while it was located at the aerodrome
- (6) a wildlife strike resulting in damage to aircraft;
 - This includes strikes which were not reported by pilots, but where damage was found on the aircraft after take-off from, or on arrival to, the aerodrome.
- (7) an aircraft landing gear collapse;
 - This includes incidents which occurred during aircraft maintenance
- (8) any other occurrence that has a significant safety impact to the operation of an aircraft or the aerodrome, or which causes or may cause a danger to persons or property.
 - This includes the incorrect presence of vehicle or personnel in unauthorised areas and major failures of any navigation aid when a runway is in use

Reporting Procedure

- 1.3 The Fourth Schedule of the ANR-139 requires the submission of a formal written notification to CAAS of any reportable safety matters specified in the schedule in a stipulated timeframe. The formal written notification is to be made through Singapore Aviation Accident/Incident Reporting System (SAIRS). The completed CAAS(AW)139 SAIRS form is to be submitted to CAAS via email or in any other manner acceptable to CAAS.
- 1.4 The list of information to be provided in SAIRS must at least include:
 - (a) Date and local time of occurrence;
 - (b) Exact location of the occurrence with reference to some easily defined geographical point;
 - (c) Detailed particulars of the parties involved, including the owner, operator, identities of aircraft and equipment;
 - (d) A detailed description of the sequence of events leading up to the incident;
 - (e) The physical characteristics, environment or circumstances of the area in which the incident occurred and an indication of the access difficulties or special requirements to reach the site;
 - (f) In the case of an aircraft accident, the number of crew members, passengers or other persons respectively killed or seriously injured as a result of the accident; and
 - (g) A description of the follow-up action being taken after the incident has occurred.

Reporting and Submission of Other Airside Occurrences

- 1.5 Further to the reportable safety matters and occurrences listed in the Fourth Schedule, the operator should also report to CAAS the following occurrences at the aerodrome not more than 1 week from the date of the occurrence. The information to be submitted

should contain at least the date, time, location, description and follow up actions with regards to the occurrences.

- 1.6 The list of occurrences to be submitted should include, but are not limited to, the following:
- (a) FOD found;
 - (b) Wildlife (excluding insects) sighted;
 - (c) Confirmed or suspected FOD incidents;
 - (d) Any aircraft taxiing errors made by aircraft during taxiing such as aircraft failing to enter the correct bay, aircraft undershooting or overshooting the correct stop bar by more than the tolerable distance of 0.5m during docking; aircraft roll back at parking stands; or miscommunication between ATC and pilots in the movement area that are made known to the certified operator of the aerodrome;
 - (e) Towed aircraft not adhering to ATC instructions or pushback SOPs;
 - (f) Vehicles failing to give way to aircraft;
 - (g) Infringement of vehicles into unauthorised areas;
 - (h) Fires on, or adjacent to, the aircraft movement areas;
 - (i) Spillage or leakage of hydraulic/fuel/petroleum, oil, hazardous material and lubricant;
 - (j) Vehicle accidents; and
 - (k) Malfunction/failure of the following ground systems at the airside:
 - (i) Aircraft Docking Guidance System;
 - (ii) Passenger Loading Bridges;
 - (iii) Apron floodlights;
 - (iv) Fuel hydrant systems; and
 - (v) Airfield lighting system

2 GUIDANCE FOR REGULATION 17 OF ANR-139 – INVESTIGATION OF OCCURRENCES

- 2.1 Regulation 17 of ANR-139 requires the certified operator of an aerodrome to investigate reportable safety matters and any other incidents requested by CAAS. The objective of the investigation of occurrences is not to apportion blame or liability but to understand the events leading up to the occurrence and make recommendations to reduce or eliminate a recurrence. The investigation should focus on prevention by identifying organisational and systemic problems that contribute to incidents or accidents and promote a “no-blame” approach. The lessons learnt derived from the investigation of the occurrence must be disseminated to staff to provide feedback for safety improvement.
- 2.2 The investigation of the occurrence must be carried out by an investigator or a team of investigators who must be technically competent and shall either possess or have access to relevant information pertaining to the investigation so that the facts and events can be interpreted accurately.
- 2.3 The operator must specify the roles and responsibilities of all personnel who are involved in:
- (a) overseeing the on-site investigations of an occurrence;
 - (b) communicating with CAAS pertaining to the investigation of an occurrence; and
 - (c) ensuring the accident site can be opened for normal aerodrome operations.

- 2.4 As part of the investigation, the operator should arrange for the examination and analysis of the involved vehicles, equipment or samples of substances (e.g. aviation fuel) taken after the occurrence of the incident as necessary. In the case of a fuel contamination, the operator must submit to CAAS the fuel laboratory test report as soon as it is available.
- 2.5 The operator must submit the investigation report to CAAS within 30 days from the date of occurrence.
- 2.6 In the event that the final investigation report cannot be submitted within 30 days from the date of occurrence, the operator should seek CAAS' approval for an extension, 1 week before the due date. The operator should provide an update of the outstanding items including the proposed revised timeline for the submission of report to CAAS.
- 2.7 The operator should also disseminate the lessons learnt derived from the investigations to the airport community to prevent similar occurrences from happening.