

Advisory Circular

GUIDANCE ON FRAMEWORK FOR SAFETY OF GROUND HANDLING ACTIVITIES AT THE AERODROME

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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 the guidance to demonstrate compliance with, and information related to the requirement to establish a framework to ensure that ground handling activities at the aerodrome are conducted safely 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 Regulation 31 of the Air Navigation (139 – Aerodromes) Regulations 2023 (“ANR-139”).

RELATED ADVISORY CIRCULARS

- AC 1-3 Safety management system,
- AC 139-5-1 Safety performance indicators and target monitoring
- AC 139-1-1 Guidance on application for, renewal and variation of an aerodrome certificate or heliport certificate

CANCELLATION

This is the first AC issued on the subject.

EFFECTIVE DATE

This AC is effective from 1 March 2023.

OTHER REFERENCES

- ICAO Annex 19 Safety Management
- ICAO PANS Aerodromes (Doc 9981), Part II, Chapter 9
- ICAO Manual on Aerodrome Certification (Doc 9774)
- ICAO Manual on Ground Handling (Doc 10121)
- UK Civil Aviation Authority CAP642 – Airside Safety Management

1 SAFETY OF GROUND HANDLING ACTIVITIES AT THE AERODROME

- 1.1 Ground handling accidents and incidents affect the safety of aircraft operations at aerodromes. Such accidents and incidents may endanger the travelling public and bring about significant direct and indirect costs, and reputational cost to airlines and the operator of the aerodrome.
- 1.2 The operator is responsible for ensuring that the aerodrome is safe for use by aircraft. The continued validity of the aerodrome certificate depends on the operator's ability to secure the continued safe operations at the aerodrome. The operator should thus convey the importance of safe operations clearly to its tenants, business partners and contractors and seek compliance with appropriate safety management and safety performance standards.
- 1.3 Regulation 31 of ANR-139 states that operators are required to establish a framework to ensure that ground handling activities at the aerodrome are carried out in a safe manner to prevent injury to persons and damage to aircraft. This advisory circular provides further guidance on the components that should be included in the framework.

2 PROCEDURES FOR THE SAFETY OF GROUND HANDLING OPERATIONS

- 2.1 The operator should establish standard operating procedures that the ground handling service providers (GHSPs), including their contractors and subcontractors operating at the aerodrome, must comply with. The standard operating procedures must address the safety of the following ground handling operations:
 - (a) Operation of ground support equipment associated with aircraft handling and loading;
 - (b) Operation of passenger loading bridge;
 - (c) Aircraft fuelling;
 - (d) Aircraft pushback;
 - (e) Aircraft powerback;
 - (f) Aircraft towing;
 - (g) Aircraft power-in arrival and power-out departure; and
 - (h) Aircraft marshalling.
- 2.2 To ensure the continual coordination between the operator and the GHSPs, the operator should establish the following processes with the GHSPs for the safety of ground handling activities. The processes should minimally include:
 - (a) exchange, sharing and analysis of safety data (e.g. reports, statistics);

- (b) sharing of safety issues identified (e.g. through third-party audit reports or otherwise) to identify joint corrective actions;
 - (c) provision of joint safety promotion activities;
 - (d) production of joint safety assessments of changes (in particular if multiple organisations are affected by the change);
 - (e) participation in joint safety committees of the aerodrome.
- 2.3 The operator should require the GHSPs to develop a maintenance programme that ensures the ground support equipment (GSE) used for ground handling and other relevant airside operations are fit for safe operations. The maintenance programme should include the following areas:
- (a) Preventive and corrective maintenance programme;
 - (b) GSE inspection and service schedules;
 - (c) Documentation of maintenance records;
 - (d) Processes to handle unserviceable GSE; and
 - (e) Storage and return-to-service plan in the event any GSE are grounded from operations.
- 2.4 The operator should ensure that the GHSPs report all aircraft accidents, serious incidents and incidents that occur on or adjacent to the aerodrome to the operator.
- 2.5 The operator should involve the GHSPs in emergency response planning and exercises.

3 SAFETY MANAGEMENT SYSTEM

- 3.1 To promote a proactive approach to improving the safety performance of GHSPs, the operator should consider requiring GHSPs to implement a safety management system (SMS) that is aligned with the SMS framework set out in AC 1-3 Safety management system and ICAO Annex 19.
- 3.2 To monitor and drive the safety performance of the ground handling operations listed in Paragraph 2.1, the operator should establish, as part of the operator's SMS, safety performance indicators and targets that reflect the safety health of the aerodrome in the area of ground handling operations. The operator should then establish GHSP-specific indicators to measure how a particular GHSP is performing with regard to safety so that safety issues and concerns will be tracked individually and directly addressed with the GHSP concerned.
- 3.3 These safety targets could either be based on historical data of past ground handling incidents, or act as stretched safety targets for the GHSPs with the aim of reducing the number of ground handling incidents. Refer to *AC 139-5-1 Safety performance indicators and target monitoring*.

4 TRAINING AND COMPETENCY OF GHSP

- 4.1 Operators should ensure that personnel carrying out ground handling activities are sufficiently and appropriately trained and assessed. To that end, the operator should set out training requirements applicable to GHSPs and their contractors/ sub-contractors, including the following areas:
- (a) The categories of personnel that need to be trained;

- (b) Theory and/or practical training required for personnel to competently perform their work;
 - (c) Requirements on assessment;
 - (d) Requirements on refresher training; and
 - (e) Requirements on training documentation.
- 4.2 The operator should review the training requirements listed in Paragraph 4.1 periodically to ensure that training requirements are met, and that the training is effective in bringing about desired changes in behaviour and safety awareness. Systems to measure these changes should be put in place and methods of measuring achievement need to be set when establishing the training objectives. A system of feedback from GHSPs will enable the operator to assess whether the courses are meeting their objectives and changes identified by training evaluation or audit should be fed back into the course design and administration.

5 GROUND OPERATIONS SAFETY COMMITTEE

- 5.1 Operators should also set up ground operations safety committee(s), or establish other appropriate platforms, to focus on and promote the safety of ground handling operations at their aerodromes. The committee could comprise of the following stakeholders:
- (a) GHSPs involved in ground handling operations at the aerodrome;
 - (b) Airlines or aircraft operators operating at the aerodrome;
 - (c) Maintenance, Repair and Overhaul organisations involved in ground handling operations at the aerodrome;
 - (d) Refuelling companies at the aerodrome; and
 - (e) Other relevant stakeholders.
- 5.2 The Committee should hold regular meetings. Any actions arising from meetings should be recorded in the minutes and it is important that these actions be followed through. The Committee may also consider establishing and nominating Specialist Working Groups to consider and report on any particular ground handling safety issues.
- 5.3 The Committee should receive and consider briefings on planning issues and provide ground handling safety advice on medium- and long-term changes expected in the industry, such as the introduction of new aircraft, major equipment and new regulations. It should also provide an interface for the examination and resolution of inter-company ground handling safety issues.
- 5.4 The Committee is a body of expertise and experience that will provide advice and report to airport management on ground handling safety matters. In providing this advice, the committee should consider all aspects of ground handling safety including the following, which are not in order of priority or exhaustive:
- (a) Receive reports and statistics on ground handling accidents and incidents, and advise on trends and solutions;
 - (b) Identification and reduction of potential risks;
 - (c) Ground handling equipment issues;
 - (d) Standard operating procedures for ground handling activities;
 - (e) New and updated airside safety instructions; and
 - (f) Methods to develop and promote apron safety awareness initiatives, such as poster campaigns and safety presentations / exhibitions.