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## SAFETY OF GROUND HANDLING OPERATIONS

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Aerodrome Safety Publications are published by the CAAS for purposes of promulgating supplementary guidance materials to the Standards and Recommended Practices (SARPs) in the Manual of Aerodrome Standards. The publications are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means, of complying with SARPs. Aerodrome Safety Publications may explain certain regulatory requirements by providing interpretive and explanatory materials.

## 1 Purpose

- 1.1 The purpose of this Aerodrome Safety Publication (ASP) is to promulgate supplementary guidance material to aerodrome operators in developing procedures for activities conducted by ground handling service providers, so that these activities are conducted safely at its aerodromes.
- 1.2 This ASP provides guidance on the acceptable means of compliance with Section 13.2.6 – *Safety of Ground Handling Operations* of the Manual of Aerodrome Standards (MOAS).

## 2 Applicability

- 2.1 This publication applies to all aerodrome operators certified under Paragraph 67 of the Singapore Air Navigation Order. Aerodrome operators should consider the size, complexity and scope of operations at the aerodrome in determining the applicability of each item addressed in this publication.

## 3 Cancellation

- 3.1 This ASP supersedes ASP 02/2014.

## 4 Effective Date

- 4.1 This ASP takes effect on 5 April 2017.

## 5 Introduction

- 5.1 Ground handling accidents and incidents affect the safety of aircraft operations at certified aerodromes in Singapore. Such accidents and incidents may endanger the travelling public and bring about significant direct and indirect costs, and reputational cost to airlines and the aerodrome operator.
- 5.2 As air traffic continues to grow in Singapore, ground handling activities are expected to increase in tandem. Ground Service Providers (GSPs) play an important role in ensuring safety at the aerodrome.

## 6 Regulatory Framework for Safety of Ground Handling Operations

- 6.1 Section 13.2.6 of the MOAS sets out the requirements to address safety of ground handling operations at certified aerodromes in Singapore. Aerodrome operators are required to establish procedures for the following ground

handling operations and require that these procedures be complied with by the GSPs:

- (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.

Note: AOC holders continue to monitor the ground handling activities provided by their GSPs.

6.2 It should be noted that GSPs remain ultimately responsible for the safety of their operations. Insofar as ground handling operations form part of aerodrome operations, Section 13.2.6 of the MOAS serves to provide clarity on the key role that aerodrome operators have in putting in place procedures for the safe conduct of ground handling operations within the aerodromes that they operate.

(A) Development of Safety Requirements

6.3 Aerodrome operators should develop safety requirements for compliance by the GSPs operating at their aerodromes. To continually monitor such compliance, aerodrome operators should put in place a framework to address the safety of ground handling activities performed by the GSPs.

(B) Safety Training

6.4 Aerodrome operators should ensure that the GSPs performing ground handling operations undergo relevant safety training. The safety training should be reviewed periodically to ensure that training needs 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 GSPs will enable safety trainers 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 administration.

6.5 Aerodrome operators should consider the need for coordination, exchangeability and compatibility of safety training between all GSPs in order

to foster standardisation, and to ensure that a comprehensive training regime covering all GSPs exists.

(C) Safety Performance Indicators and Targets

6.6 To monitor and drive safety performance of those ground handling operations listed in Paragraph 4.1, aerodrome operators should establish safety performance indicators and targets for the GSPs. These safety targets could either be based on historical data of past ground handling incidents, or act as stretched safety targets for the GSPs with the aim of reducing the number of ground handling incidents.

6.7 In setting the safety performance indicators and targets for the GSPs, aerodrome operators might need to consider if these safety performance indicators and targets should be aerodrome- or GSP-specific. Aerodrome-specific indicators reflect the safety health of the aerodrome and tell how well the aerodrome is performing as a whole in terms of safety of ground handling operations. On the other hand, GSP-specific indicators measure how a particular GSP is performing with regard to safety. Thus safety issues and concerns could be tracked individually and directly addressed with the GSP concerned if it is performing poorly.

(D) Ground Operations Safety Committee

6.8 Aerodrome operators should also set up ground operations safety committee(s), or establish other appropriate processes, to focus on and promote the safety of ground handling operations at their aerodromes. The committee could comprise the following stakeholders:

- (a) GSPs 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.

6.9 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.

- 6.10 The Committee may consider establishing and nominating Specialist Working Groups to consider and report on any particular ground handling safety issues.
- 6.11 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.
- 6.12 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.

(E) Enforcement of Safety Requirements

- 6.13 The aerodrome operator should strive to implement a just culture and strike a balance between a 'no-blame' policy and enforcement. Whatever systems are implemented, safety performance management within the airside essentially consists of two fundamental and key elements. Firstly, developing a just culture, based on company policy to ensure that accidents affecting aircraft are reported, in order to protect the public and the workforce from preventable injury and prevent any recurrence. Secondly, ensure a code of discipline to secure a safe airside working environment for everyone. The outcome of effective safety performance management should be seen by everyone to be:
- (a) Educational and developmental
  - (b) Encouraging and rewarding
  - (c) Active rather than reactive
  - (d) Constant rather than intermittent
  - (e) Continuing rather than currently fashionable
  - (f) Part of normal work rather than an isolated activity
  - (g) A means of reducing or containing costs rather than costing money itself

- (h) Everybody's concern rather than that of specialists, or worse, nobody's concern
- (i) Punitive only as a last resort

## 7 Conclusion

- 7.1 The aerodrome operator is responsible for ensuring that the aerodrome is safe for use by aircraft. The continued validity of the aerodrome certificate depends on the aerodrome operator's ability to secure the continued maintenance of safety for aircraft. The aerodrome 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.
- 7.2 Whilst the aerodrome operator is responsible for the safe operation of its aerodrome with respect to aircraft, all organisations and operators at an aerodrome are collectively and individually responsible for safety in its widest sense.

## 8 References

MOAS Clause 4.1.1.4, Section 13.2.6  
ICAO Doc 9774 – *Manual on Aerodrome Certification*  
UK Civil Aviation Authority CAP642 – *Airside Safety Management*

## 9 Queries

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