



Guidance Material for Ground Handling Operations

CAAT-GM-OPS-GOPS

Issue: 01

Revision: 00

Date: 27 December 2023



Director General of the Civil Aviation Authority of Thailand

Intentionally Left Blank

0. Administration

0.1 Foreword

Civil Aviation Authority of Thailand (CAAT) has established the Thai Civil Aviation Regulations to challenge improving the highest safety level for the Thai aviation industry. With the growth of traffics and the proliferation of Ground Handling Operations either self-handling or service providers, the ground operations at the aerodrome/airport apron activities and passenger areas have becomes flexibility and increase potential hazards

This guidance material represents the standards and recommended practices for air operators to enhance the high safety level for ground operations activities at the aerodrome /airport.

Intentionally Left Blank

0.2 Table of Contents

0. Administration	0-1
0.1 Foreword	0-1
0.2 Table of Contents.....	0-3
0.3 List of Effective Pages	0-7
0.4 Records of Revision.....	0-9
0.5 Revision of Highlights	0-10
0.6 Distribution List.....	0-11
0.7 Administration	0-12
0.7.1 Control of Manual.....	0-12
0.7.2 Amendment and Revision.....	0-12
0.7.3 Users feedback.....	0-12
0.8 List of Associated Documents.....	0-13
0.9 Definitions and Acronyms.....	0-14
0.9.1 Definition	0-14
0.9.2 Acronyms and Abbreviations.....	0-17
1. General (GH.GEN)	1-1
1.1 Scope [ORO.GEN.005]	1-1
1.2 General for Air Operator Management [ORO.GEN.110] [ORO.GEN.205]	1-1
1.3 Responsibilities of the Air Operator [ORO.GEN.110]	1-2
1.3.1 Compliance with Applicable Requirements	1-2
1.4 Management of Changes [ORO.GEN.130]	1-2
1.4.1 Notification of Changes to the Authority.....	1-2
1.5 Assessment of Changes [ORO.GEN.200]	1-3
1.5.1 A Safety (Risk) Assessment of a Change	1-3
1.5.2 The Scope of The Safety (Risk) Assessment	1-3
1.5.3 The Safety (Risk) Assessment Criteria	1-3
1.6 Access [ORO.GEN.140]	1-3
1.7 Occurrence Reporting [ORO.GEN.160]	1-4
1.8 Use of Alcohol, Psychoactive Substances, And Medicines	1-4
2. Management System (GH.MGM)	2-1
2.1 Management System [ORO.GEN.200]	2-1
2.2 Personnel [ORO.GEN.210] [ORO.AOC.135]	2-2
2.2.1 General	2-2
2.2.2 Personnel Requirements	2-2
2.3 Facilities [ORO.GEN.215]	2-3
2.4 Software Equipment [ORO.GEN.200]	2-3
3. Documents and Records (GH.DOC)	3-1
3.1 General [ORO.GEN.200] [ORO.GEN.220] [ORO.MLR.100]	3-1
3.2 Record Keeping [ORO.MLR.115]	3-2
3.2.1 Retention Period	3-2
3.3 Ground Operations Manual [ORO.MLR.100]	3-2
3.3.1 General	3-2
3.3.2 Manual Requirements	3-3
3.3.3 Amendment and Revision Process	3-3
3.4 Human Factor Principles [ORO.MLR.100(k)]	3-4
3.5 Units of Measurement.....	3-4
3.6 Manual Contents [AMC2 ORO.MLR.100] [AMC3 ORO.MLR.100]	3-4

3.7 Other Relevant Controlled Documents	3-4
4. Training of Ground Handling Personnel (GH.TRG).....	4-1
4.1 Introduction ^[ORO.AOC.135 (b)]	4-1
4.2 Training Management System.....	4-1
4.2.1 Air Operator Responsibilities	4-1
4.2.2 Training Policies	4-2
4.2.3 The Training Plan	4-2
4.3 Training Programme	4-3
4.3.1 Training Courses	4-3
4.4 Training Categories	4-4
4.4.1 Initial Training	4-4
4.4.2 Recurrent Training	4-4
4.4.3 Update Training	4-4
4.4.4 Refresher Training	4-5
4.4.5 On-The-Job Training.....	4-6
4.5 Training Facility and Delivery Methods	4-6
4.5.1 Facility Requirements	4-6
4.5.2 Training Methods.....	4-6
4.5.3 Mode of Delivery	4-7
4.6 Training Assessment Process.....	4-7
4.7 Training Documentation.....	4-7
4.7.1 Training Syllabus	4-7
4.8 Training Material	4-8
4.9 Training Records	4-8
4.9.1 Records Management.....	4-8
4.9.2 Records Identification	4-9
4.9.3 Records for Electronic.....	4-9
4.10 Instructors and Assessors	4-9
4.10.1 Instructors and Assessor	4-9
4.10.2 Prerequisites and Qualifications of Instructors or Assessors.....	4-9
5. Ground Support Equipment (GSE)	5-1
5.1 General	5-1
5.2 Air Operators Responsibilities	5-1
5.3 Ground Support Equipment (GSE) Preventive Maintenance Program/Schedule	5-2
5.4 Aircraft Servicing Point and System Requirements	5-2
5.5 Operations of Ground Support Equipment	5-3
5.6 Ground Support Equipment Storage and Return to Service	5-3
5.7 Compatibility of Ground Support Equipment with Aircraft Types	5-3
6. Operational Requirements for Ground Handling Services (GH.OPS).....	6-1
6.1 General Requirements.....	6-1
6.2 Allocation of Responsibilities.....	6-2
6.3 Language Proficiency	6-2
6.4 Supervision of Ground Handling Activities	6-2
7. Passenger Handling (GH.PAX)	7-1
7.1 Passenger Handling - General.....	7-1
7.2 Special Categories of Passengers (SCPs) ^[CAT.OP.MPA.155]	7-1
7.2.1 Carriage of SCPs Criteria	7-1
7.3 Passengers with Reduced Mobility (PRMs)	7-2

7.3.1	Procedures for The Carriage of Passengers with Reduced Mobility	7-2
7.3.2	Pre-Notification and Provision of Information	7-3
7.3.3	Passengers with Reduced Mobility Travelling Unescorted	7-3
7.3.4	Assisting Passengers with Reduced Mobility	7-3
7.4	Person with Injury, Illness, or Needing A Stretcher	7-4
7.4.1	Medical Clearance and Documentation for Passengers with Injury, Illness, or Stretcher	7-4
7.5	Restricted Persons	7-4
7.5.1	Escort Requirement for Restricted Persons	7-5
7.5.2	Carriage of Restricted Persons with an Escort	7-5
7.6	Seating of Special Categories of Passengers [CAT.GEN.MPA.165] [CAT.OP.MPA.165]	7-5
7.6.1	Seat Allocation for Special Categories of Passengers [CAT.OP.MPA.165]	7-5
7.6.2	Group Seating of Special Categories of Passenger [CAT.OP.MPA.155(c)]	7-6
7.7	Provision of Safety Information [AMC2 CAT.OP.MPA.155(b)]	7-6
7.8	Carriage of medical and other specialised equipment [AMC1 CAT.OP.MPA.160]	7-6
7.9	Handling special categories of passengers	7-7
7.10	Handling of Refusal with Special Categories of Passengers	7-7
7.11	Passenger Seated in the Emergency Exit Row Seats [CAT.OP.MPA.165]	7-8
7.11.1	General	7-8
7.11.2	The Passenger’s Seat Assigned:	7-8
7.11.3	Managing Safety Risks	7-10
7.11.4	Emergency Exit Row Occupant Briefing	7-10
8.	Baggage Handling Procedures	8-1
8.1	General	8-1
8.2	Baggage Acceptance Procedure	8-1
8.2.1	The Types of Baggage	8-1
8.3	Cabin Baggage	8-1
8.3.1	Cabin Baggage Acceptance Conditions	8-2
8.4	Checked Baggage	8-2
8.4.1	Checked Baggage Acceptance	8-2
8.5	Special Baggage	8-2
8.6	Baggage Tagging	8-3
8.6.1	Baggage Tagging Procedure	8-3
8.7	Baggage Sorting	8-3
8.8	Baggage Loading and Unloading	8-3
8.9	Transfer Baggage Handling	8-4
8.10	Mishandled and Unclaimed Baggage	8-4
8.11	Baggage Reconciliation	8-4
9.	Cargo/Mail Handling	9-1
9.1	General	9-1
9.2	Responsibilities	9-1
9.2.1	The Shipper (Consigner)	9-1
9.3	Cargo Acceptance and Preparation for Loading of Cargo	9-1
9.3.1	Cargo Acceptance and Preparation for Loading of Cargo Procedure	9-2
9.4	Cargo Documentation	9-2
9.5	Unacceptable Cargo Conditions	9-2
9.6	Labelling and Marking	9-2
9.7	Special Cargo	9-3
9.8	Company Material (COMAT)/ Company Mail (COM)	9-3

9.9	Securing of Load	9-3
9.9.1	Restraint.....	9-3
9.9.2	Lashing	9-4
9.10	Airworthiness of Unit Load Device (ULD)	9-4
9.10.1	General	9-4
9.10.2	Pre-Use Inspection of ULD	9-5
9.10.3	Checks at Aircraft	9-5
9.11	Cargo Weighing Process	9-5
9.11.1	Cargo Scales	9-6
9.12	Notification to Captain (NOTOC)	9-6
9.13	Multi-Sector Flight	9-6
10.	Airside Activities	10-1
10.1	General	10-1
10.2	Airside Safety	10-1
10.2.1	Working, Walking and Driving on the Airside	10-1
10.3	Foreign Object Debris (FOD).....	10-2
10.4	Equipment Restraint Area (ERA) and Equipment Restraint Line.....	10-2
10.5	Ramp Safety for Operating and Working with Ground Support Equipment (GES) on the Ramp ..	10-3
10.6	Personnel Protective Equipment (PPE)	10-4
10.7	Adverse Weather Conditions.....	10-4
10.7.1	Procedures for Adverse Weather Conditions	10-4
10.8	Coordination of Turnaround Activities.....	10-4
10.9	Hand Signals.....	10-5
10.9.1	Standards and Requirement	10-5
10.10	Aircraft Chocking	10-5
10.11	Aircraft Coning.....	10-5
10.12	Aircraft Access Doors.....	10-6
10.13	Pushback and Towing.....	10-6
11.	Aircraft Turnaround	11-1
11.1	Introduction	11-1
11.2	Aircraft Arrival	11-1
11.3	Aircraft Securing on the Ground.....	11-1
11.4	Aircraft Loading and Unloading	11-2
11.5	Loading Supervision.....	11-2
11.6	Loading and Unloading of Dangerous Goods	11-2
11.7	Aircraft Departure	11-2
11.7.1	Aircraft Departure Activities	11-3
12.	Carriage Assistance Animal	12-1
12.1	Permission to Carry Assistance Animal in The Passenger Cabin ^[AMC2.CAT.OP.MPA.160]	12-1
12.2	Operational Procedures.....	12-1
12.3	Seating Arrangements	12-2
12.4	Restraint and Controlling the Animal	12-2
12.5	Controlling the leakage of excreta and water	12-3
13.	Appendix A Categories of Passengers with Reduced Mobility	13-1

0.3 List of Effective Pages

Pages	Issue	Revision	Effective Date
0. Administration			
0-3	01	00	27 Dec 2023
0-4	01	00	27 Dec 2023
0-5	01	00	27 Dec 2023
0-6	01	00	27 Dec 2023
0-7	01	00	27 Dec 2023
0-8	01	00	27 Dec 2023
0-9	01	00	27 Dec 2023
0-10	01	00	27 Dec 2023
0-11	01	00	27 Dec 2023
0-12	01	00	27 Dec 2023
0-13	01	00	27 Dec 2023
0-14	01	00	27 Dec 2023
0-15	01	00	27 Dec 2023
0-16	01	00	27 Dec 2023
0-17	01	00	27 Dec 2023
0-18	01	00	27 Dec 2023
1. General			
1-1	01	00	27 Dec 2023
1-2	01	00	27 Dec 2023
1-3	01	00	27 Dec 2023
1-4	01	00	27 Dec 2023
2. Management System			
2-1	01	00	27 Dec 2023
2-2	01	00	27 Dec 2023
2-3	01	00	27 Dec 2023
2-4	01	00	27 Dec 2023
3. Management System			

Pages	Issue	Revision	Effective Date
3-1	01	00	27 Dec 2023
3-2	01	00	27 Dec 2023
3-3	01	00	27 Dec 2023
3-4	01	00	27 Dec 2023
4. Training of Ground Handling Personnel			
4-1	01	00	27 Dec 2023
4-2	01	00	27 Dec 2023
4-3	01	00	27 Dec 2023
4-4	01	00	27 Dec 2023
4-5	01	00	27 Dec 2023
4-6	01	00	27 Dec 2023
4-7	01	00	27 Dec 2023
4-8	01	00	27 Dec 2023
4-9	01	00	27 Dec 2023
4-10	01	00	27 Dec 2023
5. Ground Support Equipment			
5-1	01	00	27 Dec 2023
5-2	01	00	27 Dec 2023
5-3	01	00	27 Dec 2023
5-4	01	00	27 Dec 2023
6. Operational Requirements for Ground Handling Services			
6-1	01	00	27 Dec 2023
6-2	01	00	27 Dec 2023
7. Passenger Handling			
7-1	01	00	27 Dec 2023
7-2	01	00	27 Dec 2023
7-3	01	00	27 Dec 2023

Pages	Issue	Revision	Effective Date
7-4	01	00	27 Dec 2023
7-5	01	00	27 Dec 2023
7-6	01	00	27 Dec 2023
7-7	01	00	27 Dec 2023
7-8	01	00	27 Dec 2023
7-9	01	00	27 Dec 2023
7-10	01	00	27 Dec 2023
7-11	01	00	27 Dec 2023
7-12	01	00	27 Dec 2023
8. Baggage Handling Procedures			
8-1	01	00	27 Dec 2023
8-2	01	00	27 Dec 2023
8-3	01	00	27 Dec 2023
8-4	01	00	27 Dec 2023
9. Cargo/Mail Handling			
9-1	01	00	27 Dec 2023
9-2	01	00	27 Dec 2023
9-3	01	00	27 Dec 2023
9-4	01	00	27 Dec 2023
9-5	01	00	27 Dec 2023
9-6	01	00	27 Dec 2023
9-7	01	00	27 Dec 2023
10. Airside Activities			
10-1	01	00	27 Dec 2023
10-2	01	00	27 Dec 2023
10-3	01	00	27 Dec 2023
10-4	01	00	27 Dec 2023

Pages	Issue	Revision	Effective Date
10-5	01	00	27 Dec 2023
10-6	01	00	27 Dec 2023
11. Aircraft Turnaround			
11-1	01	00	27 Dec 2023
11-2	01	00	27 Dec 2023
11-3	01	00	27 Dec 2023
11-4	01	00	27 Dec 2023
12. Carriage Assistance Animal			
12-1	01	00	27 Dec 2023
12-2	01	00	27 Dec 2023
12-3	01	00	27 Dec 2023
12-4	01	00	27 Dec 2023
0. Appendix A			
13-1	01	00	27 Dec 2023
13-2	01	00	27 Dec 2023
13-3	01	00	27 Dec 2023
13-4	01	00	27 Dec 2023

0.4 Records of Revision

This version of the Guidance Material of Ground Operations is issue no. 01, revision no. 00. The valid pages are listed in the List of Effective Pages distributed with every revision.

Issue	Revision	Effective Date	Revised By

0.5 Revision of Highlights

Area of Changed	Amendment Summary
New Issue	Entire Manual

0.6 Distribution List

Type of Document	Distributed To
Electronic Document	Air Operator by CAAT Website

0.7 Administration

0.7.1 Control of Manual

The Ground Operations Guidance Material is produced to represent the standards and recommended practices for air operators to increase the high degree of safety for ground operations activities.

0.7.2 Amendment and Revision

Whenever there is a significant change, a new procedure issuance is required. Minor amendments shall be issued in the form of revisions, with effective pages being reviewed no later than the effective date. A vertical black line is required on the left-hand side of the page to identify the change of this revision.

Significant changes are extensive revisions necessitating a complete re-issuance when involving significant changes in organization, responsibility, guidelines, policy or procedures including substantial format change.

Minor changes are affected some contents in provision, the revision can be made to the corresponding page.

Manual custodian shall record the details of revision and indicate their name with initial last name in the Records of Revision.

0.7.3 Users feedback

If there is any recommendation for improvement with this guidance material, your valuable feedback should be provided to the Operations Management Inspection Division (OM) by sending an email to ops_om@caat.or.th

0.8 List of Associated Documents

Document Reference	Name of Document
ICAO Doc 998	Manual on Access to Air Transport by Persons with Disabilities
ICAO Doc 10086	Manual on Information and Instructions for Passenger Safety
ICAO Doc 10121	Manual on Ground Handling
EASA	Easy Access Rules for Air Operations
IATA	Cabin Operations Safety Best Practices Guide
IATA	Airport Handling Manual (AHM)
IATA	IATA Ground Operations Manual (IGOM)

0.9 Definitions and Acronyms

0.9.1 Definition

<i>Definition</i>	<i>Meaning</i>
<i>Able-Bodied Passengers</i>	Passengers who are clearly physically able and are willing to assist crew in emergency situations.
<i>Aerodrome</i>	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.
<i>Assistance Animal</i>	A dog or other animal: An animal trained to assist a person with a disability to alleviate the effect of the disability: a. to assist a person with a disability to alleviate the effect of the disability, and b. to meet standards of hygiene and behaviour that are appropriate for an animal in a public place.
<i>Cabin Crew Member</i>	A crew member who performs, in the interests of the safety of an aircraft's passengers, duties assigned by the operator or the pilot in command (PIC) of the aircraft but is not a flight crew member.
<i>Child</i>	A person who has turned 2 but has not turned 13.
<i>Direct Access</i>	A direct route or passage from a seat to an exit from which a passenger can proceed without entering an aisle or passing around an obstruction.

Definition	Meaning
<i>Disability</i>	<p>In relation to a person means:</p> <ol style="list-style-type: none"> 1) total or partial loss of the person’s bodily or mental functions, or 2) total or partial loss of a part of the body, or 3) the presence in the body of organisms causing disease or illness, or 4) the presence in the body of organisms capable of causing disease or illness, or 5) the malfunction, malformation, or disfigurement of a part of the person’s body, or 6) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction, or 7) a disorder, illness or disease that affects a person’s thought processes, perception of reality, emotions, or judgment or that results in disturbed behaviour and includes a disability that: <ol style="list-style-type: none"> a) presently exists, or b) previously existed but no longer exists, or c) may exist in the future (including because of a genetic predisposition to that disability), or d) is imputed to a person. <p>To avoid doubt, a disability that is otherwise covered by this definition includes behaviour that is a symptom or manifestation of the disability.</p>
<i>Emergency Exit</i>	<p>A door, window exit or any other type of exit (e.g. hatch in the flight deck, tail cone exit) used as an egress point to allow maximum opportunity for cabin evacuation within an appropriate time frame.</p>
<i>Emergency Exit Seats</i>	<p>Defined as:</p> <ol style="list-style-type: none"> 1) each seat having direct access to an exit 2) each seat in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit, and 3) a seat from which a passenger can proceed directly to an exit without entering an aisle or passing around an obstacle.
<i>Escort</i>	<p>An individual accompanying a passenger who requires special conditions, assistance or equipment when travelling by air.</p>
<i>Infant</i>	<p>A person who has not turned two years of age.</p>
<i>NOTOC</i>	<p>Accurate and legible written or printed information provided to the pilot-in-command concerning dangerous goods shipments or other special cargo that is to be carried onboard the aircraft.</p> <p><i>Equivalent Terms: NOTAC (Notification to Aircraft Commander), NOPIC (Notification to Pilot-in-command)</i></p>

Definition	Meaning
<i>Passenger</i>	In relation to an aircraft, means a person who: <ol style="list-style-type: none"> 1) intends to travel on a particular flight on the aircraft, or 2) is on board the aircraft for a flight, or 3) has disembarked from the aircraft following a flight, and 4) who is not a member of the crew of the aircraft for the flight.
<i>Passenger With Reduced Mobility</i>	A passenger who is likely to require special conditions and assistance to find and use an exit on board an aircraft in an emergency because: <ol style="list-style-type: none"> 1) the person's mobility is impaired, or 2) the person has another impairment.
<i>Restraint</i>	A device designed to safely restrain an occupant in their seat to prevent injuries resulting from inertial forces or other in-flight forces such as turbulence. A restraint may be a seat belt, safety harness or approved child restraint system.
<i>Restricted Person</i>	Means a: <ol style="list-style-type: none"> 1) Deportee, or 2) Person in custody, or 3) Passenger carried on an aircraft: <ol style="list-style-type: none"> a) who is on the aircraft because the passenger has been refused entry to a country, or b) whose passport does not include a visa required for entry to the passenger's destination country.
<i>Special Categories Of Passenger (SCP)</i>	Persons who need special conditions, assistance, or equipment when travelling by air. These may include but are not limited to: <ol style="list-style-type: none"> 1) Infants; 2) Unaccompanied children; 3) Persons with reduced mobility; 4) Persons on stretchers; 5) Persons with injuries or illness; or 6) Restricted persons.
<i>Suitable Person</i>	A person is suitable to occupy an emergency exit row seat or a seat adjacent to an emergency exit if the person: <ol style="list-style-type: none"> 1) is reasonably fit, strong, and able to assist with the rapid evacuation of the aircraft in an emergency, and 2) would not, because of a condition or disability, including an inability to understand oral instructions, hinder; 3) other passengers during an evacuation of the aircraft in an emergency, or 4) the aircraft's crew in carrying out their duties in an emergency.

0.9.2 Acronyms and Abbreviations

<i>Acronyms and Abbreviations</i>	<i>Meaning</i>
<i>AltMoC</i>	Alternative Mean of Compliances
<i>CAAT</i>	The Civil Aviation Authority of Thailand
<i>CMC</i>	Crisis Management Centre
<i>COMAT</i>	(Co-Mail)/Company Material
<i>ERA</i>	Equipment Restraint Area
<i>ERP</i>	Emergency Response Plan
<i>FOD</i>	Foreign Object Debris
<i>GH</i>	Ground Handling
<i>GHA</i>	Ground Handling Agents
<i>GHSP</i>	Ground Handling Service Providers
<i>GM</i>	Guidance Material
<i>GOM</i>	Ground Operations Manual
<i>GSE</i>	Ground Support Equipment
<i>IATA</i>	The International Air Transport Association
<i>NOTOC</i>	Notification to Captain
<i>PBB</i>	Passenger Board Bridge
<i>PED</i>	Personal Electronic Device
<i>PPE</i>	Personnel Protective Equipment
<i>PRM</i>	Passengers with Reduced Mobility
<i>SCPs</i>	Special Categories of Passengers
<i>SMICG</i>	the Safety Management International Collaboration Group's
<i>SMS</i>	Safety Management System
<i>SOP</i>	Standard Operating Procedure
<i>TCAR</i>	Thailand Civil Aviation Regulations
<i>ULD</i>	Unit Load Device

Intentionally Left Blank

1. General (GH.GEN)

1.1 Scope [ORO.GEN.005]

This Guidance Material (GM) applies to the following types of Ground Handling (GH):

- a) Air Operators use Ground Handling Service Providers (GHSP).
- b) Air Operators providing GH services to their own passengers and the aircraft in their fleet (self-handling). This is established through the definition of GH handling services of Regulation of the Civil Aviation Authority of Thailand on the Air Operator Certificate No. 26 and Regulation of Civil Aviation Authority of Thailand on the Operations of Air Operator Certificates No. 27

1.2 General for Air Operator Management [ORO.GEN.110] [ORO.GEN.205]

The air operator is responsible for operating and managing the system that provides Ground Handling (GH) including but is not limited to the production of load control, and related documents. These services are directly linked to the procedures of the air operator, which should be established on a practical basis:

- a) The load control services related to load planning, mass & balance calculations, and load sheet production related documents are subject to TCAR OPS Part CAT.POL.MAB.100 and CAT.POL.MAB.105. These activities should include in the air operator's management system;
- b) When these activities are outsourced to a third-party service provider, regardless of whether it provides these services at an aerodrome or from a remote location outside an aerodrome, the provisions of TCAR OPS Part ORO.GEN.205 shall be applied; and
- c) The load control activities are subject to direct oversight by the air operator within the scope of TCAR OPS Part ORO.GEN.200(a)(2), where these services are provided.

1.3 Responsibilities of the Air Operator [ORO.GEN.110]

1.3.1 Compliance with Applicable Requirements

- a) The air operator should conduct periodic reviews of the applicable requirements with which it declares compliance to ensure its documentation, processes, and procedures are current and up-to-date.
- b) In conducting such reviews, the organisation should:
 - 1) Ensure that any changes to the applicable requirements, standards, and documents or new requirements applicable to its GH services are identified and assessed for inclusion into their own management system; and
 - 2) Be able to show evidence of such reviews and assessments.

1.4 Management of Changes [ORO.GEN.130]

1.4.1 Notification of Changes to the Authority

- a) The air operator is not required to notify the CAAT of every documentation change. For example, CAAT does not need to be notified of a specific internal operations procedure change that does not affect the requirement or the GSE maintenance programme.
- b) Only significant changes need to be notified to CAAT. For example, changes related to:
 - 1) The organisation of GHSP;
 - 2) The representative at the station - name or contact information;
 - 3) Adding or removing aerodromes where it provides services;
 - 4) Adding or removing services to be provided at an aerodrome;
 - 5) Adding, removing, or changing organisations providing third-party services or third-party organisations providing services;

All changes that do not require prior approval shall be managed and notified in accordance with the operator procedure approved by CAAT.

1.5 Assessment of Changes [ORO.GEN.200]

As part of the assessment of changes to GH services, the following can be considered.

1.5.1 A Safety (Risk) Assessment of a Change

The safety risk assessment should include the following steps:

- a) Identify the scope of the change;
- b) Identify the hazards;
- c) Determine the safety criteria applicable to the change;
- d) Assess the harmful effects or improvements in safety related to the change and, if required, apply mitigation measures to ensure the change meets the applicable safety criteria;
- e) Verify that the change addresses the scope that was subject to the safety assessment and that it meets the safety criteria before the change is applied; and
- f) Specify the necessary monitoring actions to ensure that the provision of service will continue to meet the safety criteria after the change has been applied.

1.5.2 The Scope of The Safety (Risk) Assessment

The safety risk assessment should include the following elements and their interaction:

- a) The operation, management, and human resources being changed;
- b) The interfaces and interactions between the elements being changed and the rest of the system;
- c) The interfaces and interactions between the elements being changed and the operational context in which they are intended to perform; and
- d) The full lifecycle of the change from conception to operations.

1.5.3 The Safety (Risk) Assessment Criteria

The safety risk assessment criteria used for:

- a) Defined per the procedure described in the operation manual for the management of changes;
- b) Depending on the availability of data, specifications are identified for the safety performance of the existing or similar system.

1.6 Access [ORO.GEN.140]

- a) For the purpose of determining whether an air operator acts in accordance with the requirements of the Air Navigation Act B.E 2497, whether it is contracted or not, to any person authorised by the CAAT at any time:
- b) The air operator shall grant access to any facility, document, records, data, procedures, or any other material relevant to its activity;
- c) Allowed to perform or witness any inspection, test, assessment, exercise, or action deemed necessary by CAAT.

1.7 Occurrence Reporting [ORO.GEN.160]

As part of its management system, the air operator shall establish and maintain an occurrence reporting system, including mandatory and voluntary reporting, that meets the CAAT requirement No.22/2562 on reporting of civil aviation occurrences.

1.8 Use of Alcohol, Psychoactive Substances, And Medicines

The air operator should implement a procedure regarding the consumption of alcohol, psychoactive substances, and medicines. This procedure should clarify that such persons:

- a) Should not consume alcohol during their duty period;
- b) Should not perform any duties under the influence:
 - 1) of alcohol or any psychoactive substance; or
 - 2) any medicine that may have an effect on his/her abilities in a manner contrary to safety.

2. Management System (GH.MGM)

2.1 Management System [ORO.GEN.200]

- a) The air operator should implement and maintain an integrated management system including a safety management system.
- b) The management system should be proportionate to the scope of the air operator's activities and the complexity of its organisation, considering the hazards and associated risks inherent in these activities and structures.
- c) The management system should include:
 - 1) Clearly defined lines of accountability and responsibility throughout the organisation, including direct accountability for safety on the part of the senior management;
 - 2) Management system to include the following elements:
 - i) Safety objectives for the GH services performed by the organisation;
 - ii) Identification of hazards in ground handling operations;
 - iii) Safety risk assessment and risk mitigation in the provision of ground handling services;
 - iv) Means to verify the safety performance of the air operator by means of indicators and targets and to validate the proportionality and effectiveness of safety risk mitigations;
 - v) A process to promote safety within the organisation, with the purpose of fostering a safety culture within the organisation. This should include means for safety communication that ensures that personnel are fully aware of the safety management system components and convey safety critical information;
 - vi) A process to manage changes;
 - vii) A training programme that ensures that personnel involved in the provision of ground handling services are adequately trained and competent to perform the safety-related duties and that they are familiarised with the rules and procedures relevant to GH operations and the relationship of their functions and tasks to the operation as a whole;
 - viii) A process to monitor the compliance of the air operator with the applicable requirements. Compliance monitoring shall include feedback on findings to the accountable manager to ensure the effective implementation of corrective actions as necessary.

2.2 Personnel [ORO.GEN.210] [ORO.AOC.135]

2.2.1 General

The air operator shall have sufficient qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements. As part of its management system, the air operator shall:

- a) Designate a person accountable for managing the operation of GH services at each station where it provides services;
- b) Assign a sufficient number of persons to supervise the GH personnel, considering the structure of the organisation and the number of personnel employed;
- c) Their duties and responsibilities should be clearly defined, and any other arrangements should be made to ensure that they can discharge their supervisory responsibilities;
- d) Competent persons with the skills should exercise the supervision function to ensure the achievement of standards specified in the Ground Operations Manual and related documents;
- e) The air operator should designate personnel who have administrative authority to ensure that all training commitments are carried out in accordance with relevant standards. The appointed person who should have sound knowledge and experience in ground handling requirements and standards;
- f) The air operator shall nominate a person responsible for ensuring that the organisation remains in compliance with the applicable requirements. They shall be ultimately responsible to the accountable manager;
- g) The same person may fulfil more than one role, provided that they are trained and qualified to accomplish the assigned tasks and any conflict of interest raised by the assigned functions is addressed.

2.2.2 Personnel Requirements

The air operator shall ensure that the nominated persons and the personnel involved in the provision of ground handling services:

- a) Are adequately trained in accordance with the training programme, and that their qualification and competencies are properly maintained;
- b) Demonstrate their capabilities in the performance of the assigned duties;
- c) Are aware of their responsibilities and the relationship of their duties to the operation as a whole.

2.3 Facilities [ORO.GEN.215]

The air operator shall have facilities allowing the performance and management of all planned tasks and activities in accordance with the applicable requirements including but not limited to:

- a) Provide facilities for its personnel to properly perform the GH for which it is authorised in its operations;
- b) Have suitable space and sufficient infrastructure for the staging, storage and protection of ground support equipment relevant to its operations and for the build-up and breakdown of ULDs, where applicable;
- c) Have a maintenance program and documented GSE maintenance control system including records of all maintenance and inspection;
- d) Segregate and appropriately identify unserviceable ground support equipment from serviceable equipment;
- e) Sufficient work space preferably inside the airside of the aerodrome. Where this is not possible, the work space shall be made available within the aerodrome vicinity where the respond time for operation and emergency situation is acceptable;
- f) Sufficient office equipment to support the safe operation;
- g) Ventilation, lighting, and control of temperature, humidity, and other climatic conditions sufficient to ensure personnel perform duties to the standards required;
- h) Ventilated rest areas for operational staff working on shift.

2.4 Software Equipment [ORO.GRN.200]

For any software used by the air operator in relation to the operational requirements to provide GH services, the air operator should ensure the following:

- a) A backup system is available and functional in case of breakdown;
- b) The data are easily accessible and retrievable upon request by authorised persons;
- c) For all the documents issued through that software should comply with this GM, Chapter 3 documents and records;
- d) The personnel are trained and competent in using the software as per their assigned roles and tasks;
- e) The system is ensured to prevent any unauthorised access.
- f) The example of the software equipment is as follows:
 - 1) A computerised Departure Control System (DCS),
 - 2) Software for ground supervision services,
 - 3) Any computerised tools for baggage and cargo sorting, processing/preparing for loading,Any other operational software the air operator uses to support the provision of GH services.

Intentionally Left Blank

3. Documents and Records (GH.DOC)

3.1 General [ORO.GEN.200] [ORO.GEN.220] [ORO.MLR.100]

The air operator shall:

- a) Establish a documents and records system as part of its management system. It shall cover all its activities undertaken in accordance with TCAR OPS Regulation and the delegated and implementing acts adopted on the basis thereof;
- b) Ensure that all documents and records are accessible to personnel requiring them for duty purposes or by authorities, whenever needed within a reasonable time. The records should be organised to ensure traceability and retrievability throughout the required retention period;
- c) The documents and records should be stored and secured to ensure protection from damage, alteration, and theft;
- d) The documents and records should be readily readable and kept on paper, electronically, or in a combination of both. The format of documents and records, their storage, and their disposal and deletion (in the case of electronic format) shall be specified in the manual or procedures of the air operator;
- e) Documents and records in paper format should use robust material that can withstand normal handling and archiving. Computer systems should have at least one backup system that is updated within 24 hours of any new entry. Computer systems should include safeguards to prevent unauthorised personnel from modifying, deleting, stealing, or leaking data;
- f) When hardware or software changes take place, special care should be taken that all necessary data continues to be accessible, at least through the full period specified in the relevant documents and records;
- g) The required retention period for the record should be specified. The retention period commences when the record is created or changed;
- h) Make available to its operational personnel the parts/sections of the Ground Operations Manual (GOM), including the instructions and procedures of the air operator(s) related to the provision of ground handling service;
- i) Make available of any other documentation required by the CAAT for inspection or audit purposes and any associated amendments;
- j) Ensure that the new or amended documentation is distributed, communicated, and understood by all relevant personnel without delay and in accordance with the degree of urgency;
- k) Ensure that all computer hardware used for data backup is stored in a different location from that containing the working data and in an environment that ensures they remain in good condition.

3.2 Record Keeping [ORO.MLR.115]

3.2.1 Retention Period

- a) Records shall be kept for a minimum of three (3) months including but not limit to:
 - 1) General Declaration and Passenger Manifest;
 - 2) Cargo Manifest;
 - 3) Notification to Captain (NOTOC);
 - 4) Load sheet; and
 - 5) Loading Instructions.
 - 6) Other documents as required by the air operator.
- b) Notwithstanding point 3.2.1 (a), the following records should be kept as follows:
 - 1) Written agreement and associated document with other organisations, for as long as such agreement and associated document are valid;
 - 2) Ground Operations Manual (GOM), as long as it is used at that station, including instructions and procedures relating to the provision of ground handling service for air operations;
 - 3) Personnel training, qualifications, as well as their proficiency checks for last 2 training records, and at least one (1) year after the end of their employment;
 - 4) Driving authorisations for at least one (1) year after the end of a person's employment or the revocation or cancelation of a driving authorisation;
 - 5) Preventative maintenance records for Ground Support Equipment (GSE) for at least six (6) months after a vehicle is removed from operations;

3.3 Ground Operations Manual [ORO.MLR.100]

3.3.1 General

- a) The air operator shall establish the Ground Operation Manual (GOM) to include all necessary instructions, information, and procedures for the service, adapted to the operational context and operational risk, and for personnel to carry out their duties, including the air operator's management system and personnel training programme. It shall address all Ground Handling (GH) Services responsibilities.
- b) The term 'Ground Operations Manual' is used, as defined by the provisions of TCAR OPS, in relation to the Ground Handling Operations of the Air Operator. Depending on the type of organisation that provides ground handling services, this document may have various names, including 'Ground Operations Manual,' 'Ground Customer Services Manual,' 'Ramp Operations Manual,' 'Ground Service Manual,' etc., without implying that it is a different kind of document. The other terms used to describe this concept should, therefore, be interpreted as Ground Operation Manual (GOM).

- c) The organisation can decide how to organise its manual, whether it intends to have a single manual that includes all procedures and required elements of all organisations in its management system or whether it will issue separate parts for each of them.

3.3.2 Manual Requirements

The air operator shall ensure that any information taken from other relevant controlled documents, and any amendment thereof, is correctly and timely reflected in the manual. This does not prevent the air operator from publishing more conservative data and procedures in its manual.

The air operator shall ensure that the related provision of the Ground Operations Manual:

- a) is approved and signed by the accountable manager of the air operator;
- b) is approved or accepted and signed by CAAT;
- c) observes human factor principles and is organised to facilitate its preparation, use, and review.
- d) review the content of the manual, ensure that it is up to date and amended whenever necessary;
- e) incorporate all amendments and revisions required by CAAT;
- f) develop and implement a process to manage the manual version control;
- g) remove or clearly mark the obsolete parts;
- h) inform all personnel and other relevant organisations and make them aware of the changes that are relevant to their tasks;
- i) keep its manuals current at all times;
- j) ensure that all its personnel and other relevant personnel have accessible to the manuals relevant to their tasks and responsibilities;
- k) ensure that all personnel are able to read and understand the language in which those parts of the manual and other operational documents necessary to perform their tasks and responsibilities are written.

3.3.3 Amendment and Revision Process

A description of its amendment and revision process, specifying:

- a) The person(s) who may approve amendments or revisions;
- b) The conditions for temporary revisions, amendments, or revision required in the interest of safety; and
- c) A translated version of the relevant parts of the manual is an accepted means to comply with the related relevant requirements. In any case, the persons who will use the manual or its translated parts should be able to read and understand them. The air operator should ensure that the translated version is always the most recent version of that document.

3.4 Human Factor Principles [ORO.MLR.100(k)]

The principles of human factors in manual drafting should imply the following elements:

- a) it is legible, the layout is clear, and the content is organised in a logical way;
- b) The text should be clear, ensuring that there is no room for confusion or misinterpretation;
- c) it is written in a language that is understood by all personnel;
- d) it does not use words that are not familiar;
- e) abbreviations and acronyms are explained;
- f) charts, diagrams, and figure are clear and easy to follow;
- g) translations are accurate, and the translated version is always current with the source document;
- h) symbols are explained.

3.5 Units of Measurement

The air operator should ensure that specifications for the use of a standardisation of units of measurement are included in the Ground Operations Manual or relevant documents as applicable.

3.6 Manual Contents [AMC2 ORO.MLR.100] [AMC3 ORO.MLR.100]

The manual shall include, but not limited to:

- a) Administration and Control of the Manual.
- b) Management System of the Ground Handling Operations:
 - 1) Organisational structure, including;
 - 2) Roles and Responsibilities;
 - 3) Procedures related to the consumption of alcohol, psychoactive substances, and medicines;
 - 4) Contracted services and Supervision Procedures.
- c) A description of the required qualifications/competencies and training programmes for the air operator and Ground Handling Service Provider (GHSP) Personnel.
- d) Ground Handling Operations Procedure.
- e) GSE operation, preventive maintenance, servicing information, and inspection procedures;
- f) Ground Security Procedures.

3.7 Other Relevant Controlled Documents

Other relevant documents that the air operator may use to develop its Ground Operations Manual (GOM) include those developed by the aircraft manufacturer, or industry standards or manuals published by industry associations and organisations shall be controlled.

4. Training of Ground Handling Personnel (GH.TRG)

4.1 Introduction [ORO.AOC.135 (b)]

This chapter provides direction and guidance for air operators in the establishment, development, and maintenance of the training and assessment programme for personnel involved in performing ground handling services for safely and efficiently.

The programme should be tailored to the size, nature, and complexity of the operator's activities, while also considering the hazards and associated risks inherent in those activities.

The air operator has the responsibility to ensure the ongoing competence of its personnel by continuously developing their knowledge, skills, and attitudes, enabling them to perform their tasks with competence and proficiency.

Any additional training requirements within the scope of GH services not covered in this Chapter shall be added to the training programme, according to the organisation's scope of operations.

4.2 Training Management System

4.2.1 Air Operator Responsibilities

The air operator has responsibility to ensure their ground handling personnel is safe in their workplace and competent in performing the functional tasks they are employed.

The air operators shall ensure that:

- a) It provides training as required;
- b) It provides the required resources, facilities and a conducive environment to promote learning;
- c) It supports and implements the training plan;
- d) It defines duties and responsibilities job task of are assigned. The job tasks shall as a minimum:
 - 1) Identify the function of the role; and
 - 2) Determine the tasks required to be trained.
- e) It maintains job descriptions for ground handling personnel with operational tasks or with tasks within the management system that impact safety and security;
- f) It includes prerequisite criteria, skills and experience in the job description, as appropriate to the job task;
- g) It develops and maintains the training programme;
- h) A training programme should be covered as defined in this GM item 4.3 Training Program;
- i) Its ground handling personnel is trained and competent to perform the functional tasks effectively, safely and efficiently;
- j) Any training delivered shall reflect the needs of air operators, and personnel who perform the tasks;
- k) The training manual and training material keeps current with respect to the latest requirements in the applicable technical and training standards;

- l) In the case of using a Ground Handling Service Provider (GHSP), the air operator should verify, before assigning any personnel to perform ground handling service functions, that all required mandatory and functional training has been completed by the personnel. Additionally, the personnel should have successfully passed an operational assessment and should be considered competent to exercise the responsibilities of the authorized job function(s).

4.2.2 Training Policies

The air operator shall have a management system in place, which defines all aspects of training, including policies, standards and procedures relating to training. These shall cover the following:

- a) A refresher or recurrent training maybe be conducted in a classroom environment, virtual online or computer-based learning to deliver the content of the training and should approved by CAAT;
- b) Training planning process;
- c) Mitigation processes for when ground handling personnel does not achieve the required standard of knowledge or competence;
- d) Design, development and delivery of training content;
- e) Measurement of training effectiveness;
- f) Development of a process to ensure the training programme, training manual and training material are kept up to date with respect to the latest requirements in the applicable technical and training standards;
- g) Maintenance of updated documentation and training records;
- h) Management processes for tracking ground handling personnel qualifications and training compliance;
- i) Development and maintenance of instructor competencies; and
- j) Development of a backup plan for training during a crisis.

4.2.3 The Training Plan

To ensure the effective delivery of training for job role functions, air operators should develop a comprehensive training plan. The air operators should review the training plan on a regular basis, taking the following into consideration:

- a) The regulatory, industry and air operator mandatory requirements for training;
- b) Maintain of personnel competence;
- c) The number of personnel that need to be trained per job tasks;
- d) The training interval; (e.g. 12, 24, or 36 months)
- e) Minimum required hours; and
- f) Sufficient resources (e.g., staff, facilities, equipment) are allocated to perform the required training in a timely manner.

4.3 Training Programme

4.3.1 Training Courses

The air operators should ensure that its ground handling personnel with operational functions undergo the required training, as required by the assigned functions and tasks, the categories into two training courses should consist of:

- a) **Mandatory Training**
 - 1) Safety Management System;
 - 2) Human Factor;
 - 3) Emergency Response Plan;
 - 4) Aviation Security Awareness;
 - 5) Dangerous goods as per ICAO TI;
 - 6) Airside Safety;
- b) **Functional Training in the following areas according to respective Ground Handling functions and tasks as a minimum:**
 - 1) Passenger Services;
 - 2) Cargo Handling; if applicable
 - 3) Baggage Handling;
 - 4) Aircraft Loading/Unloading;
 - 5) Load Control;
 - 6) Aircraft Turnaround Coordination;
 - 7) Aircraft Ground Movement;
 - 8) Aircraft Towing;
 - 9) De-Icing/Anti-Icing; if applicable
 - 10) Passengers with Reduce Mobility;
 - 11) Fuel and Oil handling;
 - 12) Aircraft Doors handling;
 - 13) Driving of GSE in airside areas;
- c) **Additional Training: as deemed appropriate**
 - 1) Departure control system or any other training on IT tools and equipment used by air operators; if applicable
 - 2) Specific training for supervisory staff;
 - 3) Any additional training as required by the aircraft type and the type of technology and energy used for propulsion.

4.4 Training Categories

4.4.1 Initial Training

The initial training shall include a theoretical and a practical phase, as appropriate to the topic, and competence assessment of the ground handling personnel. Conducted by a competent Instructors. The practical training shall include on-the-job training (OJT) to ensure that competency standards appropriate to their duties are consistently achieved.

When a person has not performed any tasks related to their function for a period longer than 24 months prior to resuming working.

The ground handling personnel shall successfully complete all required initial training prior to being assigned to perform new duties, operational functions, and/or assigned to new aircraft type or Ground Support Equipment (GSE).

4.4.2 Recurrent Training

The recurrent training, is the part of the training and assessment programme that ensures continued competence of ground handling personnel. To achieve this purpose, the training starts with an assessment of a person's competence, to establish the gaps in their performance. The recurrent training can then be adjusted to the person's training needs.

Recurrent training includes training and assessment of the theoretical knowledge and skills and the practical competence of ground handling personnel that are necessary to perform their tasks to the required standard.

Recurrent training includes also the training on specific training required by the applicable regulations and required by the assigned task.

The training intervals not exceeding 36 months from the completion of their previous training unless a different period is specified by other applicable requirements. If the recurrent training is undertaken within the last 3 calendar months of the interval, the new interval period may be counted from the date when the recurrent training was delivered.

4.4.3 Update Training

The update training is the training performed when there is a change in a procedure or a regulation, to ensure that a person remains competent as a result of changes relevant to the completion of their tasks. Such training is developed and delivered following an effective analysis and change management process. The update training shall be provided when there are:

- a) Significant changes to the operating environment,
- b) Infrastructure changes,
- c) New GSE,
- d) New aircraft type, or
- e) The individual's assigned task changes, as necessary.

4.4.4 Refresher Training

Refresher training: where an employee is identified as no longer meeting the performance standard or who has been absent from their operational role for a prolonged period, refresher training shall be used.

When ground handling personnel is absent from the operational or functional role for a prolonged period, regardless of the reason for their absence, the air operator shall ensure minimum conditions are met.

Period of Absent	Training Conditions
Up to 3 months	<ul style="list-style-type: none"> • Brief the ground handling personnel on any procedural, organisational or equipment/infrastructure updates/changes that might have occurred during their absence. • The briefing shall be documented and filed accordingly.
3 – 12 months	<ul style="list-style-type: none"> • Brief the ground handling personnel on any procedural, organizational or equipment/infrastructure updates/changes that might have occurred during their absence. • The briefing shall be documented and filed accordingly. Additionally, deliver on-the-job training and assessment to ensure competence has been maintained.
12 – 24 months	<ul style="list-style-type: none"> • Deliver refresher training, including a documented, formal assessment of competence, as per recurrent training programme, to confirm the ground handling personnel remains competent to perform that role. • Brief the ground handling personnel on any procedural, organizational or equipment/infrastructure updates/changes that might have occurred during their absence. • The briefing shall be documented and filed accordingly.
More than 24 months	<ul style="list-style-type: none"> • Initial training programme to be delivered.

Table 1 Minimum training conditions for employees returning from work absence

4.4.5 On-The-Job Training

On-The-Job Training is the component of the training programme performed in the operational environment, which combines the theoretical and the practical knowledge and skills acquired during the previous training phases in a realistic environment. The aim of this training is to develop a person's skills so that they can perform their tasks in a competent manner.

4.5 Training Facility and Delivery Methods

4.5.1 Facility Requirements

- a) The air operator or ground handling service providers shall have adequate classroom, office and rest area to satisfactorily carry out and support all planned training programmes. However, if decides to organise a course in a different venue, the classroom should be adequate and other facilities shall be made available.
- b) The specification of the classroom as a minimum shall meet the followings:
 - 1) Able to accommodate a maximum of 25 participants;
 - 2) Proper chair and table;
 - 3) Adequate lighting;
 - 4) Suitable ambient environment;
 - 5) Audio visual equipment;
 - 6) Learning aid equipment such as white board, paper board;
 - 7) Any other facilities to facilitate the training.

4.5.2 Training Methods

Training should be delivered using a blended solution appropriate for the individual training needs of a specific operational function, audience and/or regulatory requirement. Training should, therefore, be a combination of theoretical and practical skills designed to develop the trainee's competence and ability to successfully complete the task to the required standard.

- a) **Theoretical Training:** Theoretical training focuses on delivering the knowledge required for the task. It can be delivered using a variety of methods and media to enable learning (e.g., traditional classroom, virtual classroom, web-based, digital, virtual reality, video tutorials). Theoretical training shall be documented and recorded, If the operator decides to conduct theoretical training through virtual classroom training, the operator shall obtain approval from CAAT before commencing the training.
- b) **Practical Training:** In addition to theoretical training, practical training shall be conducted to ensure achievement of operational performance and competence in all defined training objectives applicable to the functional role includes on-the-job training, and shall be documented and recorded. In the context of the practical training specified in the training syllabus, it is essential for the operator to consider the arrangement of sessions within a classroom or operational training environment. This measure is intended to ensure that participants acquire comprehensive skills and experience through active training engagement.

4.5.3 Mode of Delivery

- a) **Virtual Training:** Virtual classroom instruction, such as videoconferencing with an acceptable level of communication and interaction is ensured with appropriate equipment and tools. The virtual classroom instruction should provide real-time instructor-led learning where participants can interact, communicate, view and discuss presentations. The maximum number of participants should be a maximum number of 15 participants. This training method requires prior approval by CAAT.¹
- b) **Class room Training:** for classroom training requirement refer to this GM item 4.5.1 (b)

4.6 Training Assessment Process

Verification of theoretical knowledge shall be achieved, by:

- a) Means of an appropriate knowledge assessment of the subject matter.
- b) Establishing a minimum of an 80% pass grade for theoretical assessments with any errors reviewed.
- c) Conducting all practical assessments with a standardized and controlled checklist for each training task.
- d) Declaring the trainee competent only when achieving an error free assessment.
- e) Successfully completing both the theoretical and practical assessments to consider personnel qualified and competent to fulfil their assigned tasks.

4.7 Training Documentation

4.7.1 Training Syllabus

The air operators shall document and maintain a training syllabus² which includes:

- a) Training objectives, learning outcomes and training content;
- b) Initial training requirements and methodology;
- c) Recurrent training content, frequency and methodology;
- d) Duration of training;
- e) Target audience for training;
- f) Any pre-requisites;
- g) Training methods and mode of assessment; and

¹ The virtual training method considered excludes initial training which is described in this GM Chapter 4, item 4.2.2 Training Policies

² The training syllabus may also include:

- 1. An assessment strategy with pre-determined criteria, including for on-the-job training.
- 2. Any resources required to deliver training, including personnel and physical resources.

- h) Other types of training as defined in this [chapter 4, item 4.4](#)

4.8 Training Material

In developing training material to meet the requirements of the syllabus, the required training objectives and learning outcomes, the air operators shall consider variables such as:

- a) Language³;
- b) State regulations;
- c) Training equipment; and etc.

The air operators shall ensure all training material is maintained and current, as appropriate., and reviewed at least annually. All training material be effectively documented in a control system, and display, as a minimum, the version number and date of revision as evidence of regular review.

4.9 Training Records

4.9.1 Records Management

Training content and records shall be made available (for ground handling personnel), available for review as required (e.g., during an audit, upon request of competent authority). Training records shall be:

- a) Documented either physical on paper, or electronically in a system to confirm the training delivered and the required level of competence has been achieved;
- b) In a system for the management and control of operational training records to ensure the content and retention of such records is in accordance with requirements and air operators' policy, as applicable, and to ensure operational records are subjected to standardized processes for:
 - 1) Identification;
 - 2) Legibility;
 - 3) Maintain;
 - 4) Retrieval;
 - 5) Protection, integrity, and security;
 - 6) Disposal, deletion (electronic records) and archiving.

³ To compensate for language barriers, training material should:

- 1. Maximise illustrations;
- 2. Minimise lengthy written explanations;
- 3. Be delivered in the local language when possible, or at least with local language support, except when other languages (different from the local one) are defined by the air operator as a mandatory requirement for the function (e.g., English for some supervisory functions).

4.9.2 Records Identification

All theoretical and practical training, including assessments and achievement of competence, should be documented in a timely and consistent manner. The record should identify, as a minimum:

- a) Trainee name and id number;
- b) Subject/title of training;
- c) Training Result as evidence that competence is achieved;
- d) Date of training (to allow for prediction of recurrent needs); and
- e) Name and signature of instructors/assessor (when paper based).

4.9.3 Records for Electronic

In the case of electronic, the record should include:

- a) Subject/title of training or a course reference code;
- b) An electronic acknowledgement (as applicable); and
- c) Regular data back-up processes shall be established to ensure data safety.

4.10 Instructors and Assessors

Training and assessments shall be conducted by personnel who have demonstrated the knowledge, skills, and experience to deliver the training/assessment effectively. Instructors and assessors shall:

- a) Be competent and qualified in the subjects to be trained/assessed, in accordance with the standards outlined in the air operator training programme of Ground Handling Personnel;
- b) In some cases, be certified to conduct training and assessments, as required by CAAT.

4.10.1 Instructors and Assessor

- a) Instructors shall also assess achievement of the knowledge and competence trained. Instructors may sign records of training on behalf of the organization to document learning as being completed.
- b) An Assessor shall be able to provide feedback to the trainee on any gaps in theoretical and/or practical competence. This task can be performed as part of on-the-job training or other operational personnel who are competent to perform this task.

4.10.2 Prerequisites and Qualifications of Instructors or Assessors

The air operators shall ensure prerequisites and qualifications of Instructors are met, and also required to specify the following necessary conditions:

- a) A minimum of operational experience;
- b) Proof of competence in the subject matter they are qualified to train;
- c) Effective interpersonal and communication skills; and
- d) Delegation process to appoint to be Instructors or Assessors.

Intentionally Left Blank

5. Ground Support Equipment (GSE)

5.1 General

Ground Support Equipment (GSE) is an essential component of ramp operations, and its efficient management and utilization are critical for ensuring a safe, cost-effective, and on-time turnaround. It is recommended for air operators to establish a robust system for maintaining and utilizing GSE. This system should include the provision of accurate and readily accessible GSE data for operations control. By doing so, air operators can effectively plan aircraft changes or new routes, confident in the knowledge that the required GSE types are available at the relevant aerodrome/airport.

The air operators should appoint a person responsible for the monitoring of the Ground Support Equipment (GSE) operation and maintenance. Such a person shall be properly trained and competent. This function may be cumulated with another function within the organization.

5.2 Air Operators Responsibilities

It is the responsibility of the air operators to have a process in place to ensure that the Ground Support Equipment (GSE) is used for the provision of ground handling services:

- a) Is serviceable, in good condition;
- b) Operated according to the operating instructions and within the design parameters of the equipment;
- c) Used only for the purpose(s) for which the equipment is designed;
- d) Maintained in accordance with the air operator's maintenance programme and instructions, with due consideration to a minimum impact on the environment;
- e) Have manuals or instructions for the operation of GSE, which are available and applied in practice;
- f) Establish and implement adequate procedures and instructions for the operation of the GSE;
- g) Have established means of ensuring receipt of, and appropriate action on service bulletins, service updates, recalls and other notifications regarding the safety and use of the equipment issued by the manufacturer and/or authorities;
- h) Ensure that the personnel using GSE have a valid driver's license if required, have been authorized by the aerodrome authority, air operator, and GHSP;
- i) Ensure that the personnel using GSE are properly trained and their competencies are maintained;
- j) When using autonomous vehicles, ensure that these have been authorized by the aerodrome authority and any additional local specific requirements are observed;
- k) Establish and implement a maintenance programme, which includes preventive maintenance where appropriate, to maintain the systems and equipment necessary for the provision of ground services equipment in a state of operation that does not impair the safety, regularity of efficiency of operations;
- l) Ensure that non-serviceable GSE is properly marked/labelled and not used for current operation;

- m) When GSE maintenance services are outsourced, ensure that the maintenance is performed in accordance with the equipment manufacturer instructions and specifications, which cover maintenance and repair instructions, servicing information, troubleshooting, and inspection procedures.

5.3 Ground Support Equipment (GSE) Preventive Maintenance Program/Schedule

The air operators should use the minimum industry standard for a preventative maintenance programme for Ground Support Equipment (GSE) by providing a comprehensive set of generic and GSE specific maintenance checklists and schedules recommended for use by manufacturer, GSE owners / operators to standardize their GSE maintenance programme. The preventive maintenance programme of the GSE should be reflected in the safety risk assessment process of the air operators. The air operators should:

- a) Ensure the implementation of a maintenance programme for its vehicles and ground support equipment that operate on the ramp area and other operational areas at the aerodrome;
- b) Establish procedures to support the implementation of the maintenance programme;
- c) Ensure that the maintenance programme is effectively implemented using appropriate and adequate means and facilities, including when maintenance services are outsourced;
- d) Ensure that unserviceable vehicles and ground support equipment are not used for operations;
- e) Keep maintenance records for each vehicle and ground support equipment.

The air operator should establish the minimum requirement for a preventive maintenance checklist and schedule for GSE where a documented daily inspection or pre-use check programme is already in place. The maintenance programme shall be adequate to the frequency and the specific conditions of its use, design and implementation of the maintenance programme shall observe the human factor principles.

The maintenance programme shall ensure effectiveness of the vehicles and their equipment and compliance with the specified response time throughout the life of the vehicle. To encourage a basic level of consistency and minimum requirements for GSE maintenance, a set of GSE maintenance checklists and schedules, have been developed.

5.4 Aircraft Servicing Point and System Requirements

The operators shall be provided with aircraft data pertinent to ground handling and Ground Handling Service Provider (GHSP).

The aircraft data should cover:

- a) Locations and dimensions of aircraft doors and sill heights. This information is related to doors used for loading/unloading of passengers, baggage, cargo, mail and commissary only;
- b) Locations of servicing points used to connect:
 - 1) Air conditioning;
 - 2) Electrical;
 - 3) Fuel;
 - 4) Potable water;
 - 5) Lavatory; and

- 6) Pneumatic systems.
- c) System requirements covering:
 - 1) Electrical;
 - 2) Air conditioning;
 - 3) Pneumatic;
 - 4) Potable water; and
 - 5) Lavatory systems.

5.5 Operations of Ground Support Equipment

The operation of Ground Support Equipment (GSE) shall be performed so as to minimize the risk of injuries to persons and damage to the aircraft, other equipment or vehicles on the ramp or the environment. The air operators shall develop procedures for the operation of the used GSE, with specific safety actions to address the risk for equipment approaching, parking and departing the area where the aircraft is being serviced, including the equipment used for the transport of passengers with disabilities on the ground.

5.6 Ground Support Equipment Storage and Return to Service

The air operator is required to establish a procedure ensuring the clear separation, identification, and appropriate storage of Ground Support Equipment (GSE) that is Out of Operational Use (OOU) and ready for use.

5.7 Compatibility of Ground Support Equipment with Aircraft Types

There is a significant contributory factor in damage to aircraft resulting from the incompatibility of ground support equipment with aircraft. In order to ensure the safe ground handling of aircraft on the ground, air operators are advised to carefully consider the following factors:

- a) Aircraft Design
- b) Ground Support Equipment Design
- c) Soft Materials, e.g. Training Programs, Manuals
- d) Ground Handling Procedures
- e) Standard Operating Procedures for Ground Support Equipment

Intentionally Left Blank

6. Operational Requirements for Ground Handling Services (GH.OPS)

6.1 General Requirements

The air operator shall provide services in accordance with the instructions, operational procedures developed under its own management system and included in its ground operations manual.

- a) Those procedures shall observe the following principles:
 - 1) Be based on industry good practices;
 - 2) Be appropriate to the aircraft type and operational context;
 - 3) Include the aircraft operator's safety instructions or variations from the industry's good practices.
- b) The air operator shall ensure that all general elements of control for the management of safety risks are in place and functional during the provision of ground handling services as follows:
 - 1) Policy establishes the air operator's safety accountability, authority, and responsibility as part of the SMS interfaces.
 - 2) A process to ensure the exchange of safety information relevant to the interface activities through safety promotion activities, regular meetings, safety bulletins, or other activities.
 - 3) Training programme and qualification criteria to ensure the personnel is competent to perform the tasks per the required standards.
 - 4) Personnel are aware of their duties and responsibilities and understand their role in the safety of air transport operations.
 - 5) Equipment and tools – including ground support equipment (GSE) and software – are functional, and maintenance, calibration, and accuracy are verified and current.
 - 6) All GSE – motorised and non-motorised – are compliant with the maintenance programme and accessed by personnel trained and qualified for the purpose.
 - 7) Manuals, instructions, and any necessary documentation are available and current.
 - 8) A process for continuous improvement of the operational procedures and instructions to increase the safety of operation.
- c) The air operator shall ensure that the manuals, operational procedures, and instructions are written in a language that can be understood by the personnel responsible for their application.
- d) The air operator shall develop operational procedures for the flight dispatch activities, load planning, mass and balance calculation, and production of related load control documents in compliance with TCAR OPS Regulation.

6.2 Allocation of Responsibilities

The air operator shall ensure that its operational procedures for the services provided clearly identify the responsibilities involved in each GH services.

6.3 Language Proficiency

The air operator is responsible for designating the primary language and ensuring that the GH personnel are capable of demonstrating their ability to read and understand the instructions and all relevant operational documents, including the GH personnel whose native language is not the same as the designated language are required to demonstrate a level of proficiency of communication and understanding in the use of phraseologies and plain language of the following operational documents:

- a) Ground Handling Personnel Supervision;
- b) Ground Handling Services Supervision;
- c) Passenger acceptance, gate, and boarding services;
- d) Aircraft ground movement for services involving radio communication with the flight crew and/or ATS unit;
- e) Aircraft fueling; and
- f) Aircraft de-icing/anti-icing.

6.4 Supervision of Ground Handling Activities

This requirement shall apply to a GHSP when providing this service as a contracted activity to an air operator.

When this function is combined with other compatible functions, all of those functions should be clearly identified, and any function overlap should be addressed.

The persons assigned for this function shall have completed the relevant training for the ground supervision activity as per GM Chapter 4 - Training of Ground Handling Personnel (GH.TRG) and shall be competent to provide this service.

When providing this service, the air operator shall detail the tasks of supervising GH activities in its Ground Operations Manual.

7. Passenger Handling (GH.PAX)

7.1 Passenger Handling - General

The handling of passengers shall be conducted in a manner that ensures the safe transport of passengers boarding and disembarking an aircraft and minimises the risk of injuries. The air operator shall define the duties and tasks related to passenger handling and assign competent personnel to complete those duties and tasks as per the required standards.

Passenger handling procedures shall cover the following main phases to mitigate the safety risks related to this activity:

- a) Check-in, including passenger and baggage acceptance,
- b) Gate activities and boarding, and
- c) Disembarkation and arrival activities, including, if applicable, handling of transit and transfer passengers.

The requirements for transporting dangerous goods shall be applied as per ICAO Annex 18 and the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284). The final number of boarded passengers and checked baggage weights for each flight shall be correctly recorded in the system for load planning purposes and transmitted to the crewmembers of each respective flight.

7.2 Special Categories of Passengers (SCPs) [CAT.OP.MPA.155]

Special categories of passengers (SCPs) are those who require special consideration, assistance, and/or devices when carried on a flight and whose situation necessitates appropriate attention and adaptation to their specific needs. SCPs can include at least the following:

- a) Persons travelling with infants and children;
- b) Unaccompanied children;
- c) Persons with reduced mobility;
- d) Persons on stretchers;
- e) Persons with injuries or illness;
- f) Restricted persons.

The air operators are required to outline in their operations manual how they comply with the SCP-related requirements of Parts ORO.GEN.110(f).

7.2.1 Carriage of SCPs Criteria

When establishing procedures for the carriage of SCPs, it is recommended that consideration be given to the following:

- a) Aircraft type and cabin configuration;
- b) Total number of passengers carried on board;
- c) The number and categories of SCPs compared with the number of passengers capable of assisting them in case of an emergency;

- d) The number of cabin crew in proportion to the number of unaccompanied children in their care;
- e) Any other factor(s) or circumstances possibly impacting the application of emergency procedures by the operating crew members.

A passenger capable of assisting in case of an emergency means a passenger who is not an SCP and has no other role or private responsibility that would prevent them from assisting an SCP. For example, an adult travelling alone has no other role or private responsibility, unlike a family travelling together with younger children.

In a planned emergency, if time permits, passengers identified by the cabin crew as capable of assisting an SCP should be briefed on the assistance they can provide. Providing passengers with access to the relevant information prior to travel will assist with their understanding of, and compliance with, air operator procedures and requirements.

7.3 Passengers with Reduced Mobility (PRMs)

The air operators are obliged to prioritise the safety of their passengers and crew but should not refuse to transport a passenger with reduced mobility (PRM) based on their disabilities unless it is to meet applicable safety requirements.

A PRM includes any person whose mobility is reduced due to a physical incapacity (sensory or locomotor), an intellectual deficiency, age, illness, or any other cause of disability when using air transport, and whose situation needs special attention and adaptation to the person's needs of the services made available to all passengers. [Appendix A](#) to this GM provides a description of some of the different categories of a PRM.

7.3.1 Procedures for The Carriage of Passengers with Reduced Mobility

In addition to the general policy considerations for SCPs described in [Chapter 7, Paragraph 7.1](#), the ability of the air operator to handle PRMs should be considered. It is recommended that the procedures for the carriage of a PRMs, including those with hidden disabilities, are developed giving regard to the following:

- a) Information required as part of the reservation process;
- b) Medical clearance;
- c) Seat allocation requirements;
- d) Safety briefing requirements;
- e) Assistance in an emergency;
- f) Passengers remaining on board during transit;
- g) Refusal or removal of passengers where crew suspect a passenger is unfit for travel or may represent a danger to themselves or other passengers; and
- h) Group travel of passengers with reduced mobility.

7.3.2 Pre-Notification and Provision of Information

The air operators should provide passengers with information on travel restrictions due to safety (e.g., the procedure for medical clearance) in a format that is easily accessible, in addition, to encouraging pre-notification.

A PRM is also responsible for providing air operators with information relevant to their assistance requirements. Encouraging a PRM to inform the air operator of their situation at the time of booking or as early as possible in advance of the flight will assist with managing their needs.

It is recommended that air operators implement a system to record the assistance requirements of each PRM and ensure that this information is effectively communicated to other areas of the operation so that ground handlers and crew members are aware.

When a PRM requires assistance on board the aircraft, it is important that the crew members are notified at the earliest opportunity so that appropriate preparations can be made.

The IATA has a classification system for passengers with reduced mobility that is commonly used by air operators. Alternately, air operators may decide to develop their systems to include additional classifications to enhance the information recorded on a PRM's requirements.

7.3.3 Passengers with Reduced Mobility Travelling Unescorted

The air operator should consider the following criteria when determining whether a PRM can travel on board an aircraft unescorted. Are passengers able to:

- a) Communicate satisfactorily with a crew member;
- b) Comprehend the passenger safety briefings and/or safety briefing card;
- c) Fasten and unfasten their seat belt;
- d) Reach and don the oxygen mask;
- e) Retrieve and don the life jacket; and
- f) Reach an emergency exit in a reasonable time.

7.3.4 Assisting Passengers with Reduced Mobility

During an emergency evacuation, the flight and cabin crew are responsible for the overall evacuation of all passengers, including those with reduced mobility. A PRM whom an assistant escort will typically be evacuated by their assistant. Depending on the situation, crew members may assist.

Consideration should be given to a PRM who is incapable of providing basic levels of personal care during their journey and the conditions under which an assistant suitable for their needs is necessary to facilitate travel. Crew members may assist a PRM to:

- a) Move to and from their seat as part of the embarking and disembarking process.
- b) Stow carry-on items, including mobility aids and other assistive devices, on board the aircraft.
- c) Ensure that all passengers receive a briefing they understand.
- d) Air operators may offer additional services, such as upper torso restraints for passengers that have trouble sitting upright.

7.4 Person with Injury, Illness, or Needing A Stretcher

The general procedure considerations for passengers with injury, illness, or needing a stretcher, it is recommended that procedures for the carriage of passengers with injury, illness, or needing a stretcher are outlined as the following:

7.4.1 Medical Clearance and Documentation for Passengers with Injury, Illness, or Stretcher

The air operator procedures should consider not only the circumstances under which passengers require medical clearance but also the documentation required to be completed for travel. Considerations relevant to determining if a medical clearance is required include circumstances where:

- a) Fitness to travel is in doubt, as evidenced by a recent illness, disease, treatment, operation, or other condition.
- b) The passenger may be suffering from any disease that is believed to be actively contagious and communicable.
- c) Because of certain diseases or incapacitation, the passenger may have or may develop an unusual behaviour or physical condition that could have an adverse effect on the welfare of other passengers and/or crew member.
- d) The passenger could be considered a potential hazard to the safety of the flight (including the possibility of diversion and unscheduled landing of the flight).
- e) The passenger would require medical attention and/or special equipment to maintain their health during the flight.
- f) The passenger may have their medical condition aggravated during or because of the flight.

7.5 Restricted Persons

The general procedure for the carriage of restricted passengers should be developed with the following considerations:

- a) Information required from the custodial agency responsible for the person travelling;
- b) Refusal of carriage where the safety of the aircraft, crew member, or passengers is deemed to be at risk;
- c) Circumstances where an escort is required, including the number and category of escort, e.g., medical, law enforcement;
- d) Seat allocation requirements;
- e) Additional safety briefing information specific to the circumstances;
- f) Additional security arrangements, e.g., no public disclosure of the itinerary, special requirements, permits, or authorities at transit, transfer, and destination;
- g) Notification to crew member;
- h) PIC assuming full authority over passengers at boarding;
- i) Restrictions on the service of alcohol, and provision of utensils;
- j) Passengers remaining on board during transit; and

- k) Group travel of passengers in this category.

7.5.1 Escort Requirement for Restricted Persons

Considerations that may be relevant to determining whether an escort is necessary include circumstances where the passenger:

- a) Is a safety risk because of past or present conduct;
- b) Is in a mental state that requires special attention;
- c) Has committed a crime, or is wanted by police in any state; and
- d) Exhibits any behaviour considered dangerous in the risk assessment process.

7.5.2 Carriage of Restricted Persons with an Escort

When establishing procedures for the carriage of restricted persons accompanied by an escort, consideration should be given to the following:

- a) Information provided to ground personnel and crew member.
- b) Carriage of firearms, weapons, and restraint devices on board.
- c) Identification by escorts to ground personnel and crew member.
- d) Information to be transmitted to the PIC, and acknowledgment of receipt of the information.
- e) Boarding and disembarkation procedures.
- f) Restrictions on the service of alcohol, e.g., provision of utensils.

7.6 Seating of Special Categories of Passengers ^[CAT.GEN.MPA.165] ^[CAT.OP.MPA.165]

When establishing seat allocation procedures for SCPs, air operators not only have to consider restrictions around the allocation of seats that permit direct access to emergency exits but also other seat locations that have the potential to impact the safety of passengers in flight, e.g., access to emergency equipment.

It is recommended that SCPs be assigned seats that meet their needs subject to safety requirements (e.g., a seat with a movable armrest for a passenger who cannot easily transfer over a fixed aisle armrest), and they are not moved from the seats that are most appropriate for them, other than for safety reasons.

7.6.1 Seat Allocation for Special Categories of Passengers ^[CAT.OP.MPA.165]

Relevant considerations regarding seat allocation procedures for SCPs may include:

- a) If the SCP travels with an accompany passenger, seating the accompany passenger next to the SCP.
- b) If the SCP is unable to use stairs within the cabin unaided, not allocating a seat on the upper deck of a multi-deck aircraft if the exits are not certified for emergency evacuation on both land and water.
- c) Restrictions on the use of a disability and/or restraint aid that requires securing around the back of the seat if there is a person seated behind the SCP unless the seating configuration is approved for the use of such devices. This is to avoid the changed dynamic seat reactions with the disability and/or restraint aid in place, which may lead to injury of the passenger seated behind. If the seat

design or installation would prevent contact with the person seated behind, then no further consideration is necessary.

- d) Provisions for the diverse needs of passengers with hidden disabilities, e.g., needing to sit near a window to ease anxiety or stress.

Note:

GM2 CAT.OP.MPA.155(c) provides guidance for establishing seat allocation procedures for SCPs.

7.6.2 Group Seating of Special Categories of Passenger [CAT.OP.MPA.155(c)]

Air operators may consider seating groups of non-ambulatory SCPs requiring assistance to find or use an emergency exit throughout the cabin to ensure each SCP is surrounded by the maximum number of passengers capable of assisting in an emergency.

If non-ambulatory SCPs requiring assistance cannot be evenly distributed throughout the cabin, procedures to mitigate the increased safety risk may include seating passengers capable of assisting in case of an emergency in the vicinity, providing additional information to the SCPs, and/or training provided to cabin crew.

7.7 Provision of Safety Information [AMC2 CAT.OP.MPA.155(b)]

SCPs may require additional, personalised individual briefings adapted to suit their specific needs. Where practicable, consideration should be given to pre-boarding SCPs (and their escort if they are accompanied) to accommodate the individual pre-departure briefing.

In a planned emergency, if time permits, passengers identified by the crew member as capable of assisting an SCP may be briefed on the assistance they can provide.

7.8 Carriage of medical and other specialised equipment [AMC1 CAT.OP.MPA.160]

Medical and other specialised equipment carried to support SCPs, may include:

- a) Wheelchairs
- b) Oxygen
- c) Incubators
- d) Stretchers
- e) Devices for supporting limbs
- f) Mobility aids.

When establishing procedures for the carriage of medical and other specialised equipment, consideration should be given to the following:

- a) Acceptance of mobility aids and assistive devices in relation to standard baggage allowances for both passenger compartment and cargo compartment;
- b) Availability of appropriate stowage locations in the cabin;
- c) Requirements for the carriage of battery-operated wheelchairs or mobility aids;
- d) Requirements for the carriage and administration of supplementary oxygen.

7.9 Handling special categories of passengers

The procedures for handling SCPs should cover the following aspects:

- a) The personnel are appropriately trained and qualified to deal with SCPs;
- b) Avoid overloading one individual with the handling of both the SCPs and their baggage;
- c) The passenger boarding bridge should not be obstructed during boarding/deplaning by massed carry-on baggage and queueing of wheelchairs;
- d) The suitable equipment is used, and the personnel operating it are properly trained;
- e) Persons with disabilities should always be handled and escorted by qualified, trained support personnel. They may not be left alone or with only their escorting individuals, particularly during boarding operations. This can be accomplished by utilizing vehicle types that provide passengers and their escorts comfort and safety.
- f) In circumstances where the number of SCPs forms a significant proportion of the total number of passengers carried on board, the number of SCPs should not exceed the number of able-bodied persons capable of assisting during an emergency.

7.10 Handling of Refusal with Special Categories of Passengers

The procedures for refusing special categories of passengers (SCPs) shall be established in the air operator's operations manual; do not refuse SCP for reasons related to their disability or conditions unless one of the following reasons is applicable and is in accordance with operating procedures.

- a) The person has such a degree of physical infirmity that the trip would likely result in complications or death, leading to a diversion.
- b) The person requires individual nursing or care during the flight and is not accompanied by a suitable personal care attendant and/or safety assistant.
- c) The person, because of their physical or medical condition, directly threatens the health or safety of other passengers, their property, the aircraft, or crew members. Furthermore, the threat cannot be eliminated by providing additional aid or services or by other means (e.g., face masks, separate seating).
- d) The person fails or refuses to submit themselves to the specific conditions of carriage required by the air operator's operating procedure.
- e) Information is required about the person's medical condition (diagnosis) where the passenger's own physician refuses to disclose such information to the authorized medical service.
- f) The person has a communicable disease and is in the infectious period (or does not have proper medical clearance).
- g) Stretchers may be refused as per the aircraft type or air operator procedures.

7.11 Passenger Seated in the Emergency Exit Row Seats [CAT.OP.MPA.165]

7.11.1 General

- a) The actions of passengers in an emergency can have a significant impact on survival. Passengers seated adjacent to emergency exits play a particularly important role in assisting the crew during an evacuation where response time is critical.
- b) Emergency exit row seating encompasses each seat in a row of seats located at an emergency exit, with direct access to the exit. When emergency exits are not assigned to crew members, they are referred to as unstaffed exits (or self-help exits). Unstaffed exits may be floor-level exits or window exits, such as those located on some aircraft at the over-wing location.
- c) Having a suitable person occupy a seat at least on each side in a seat row with direct access to an emergency exit (not staffed by a cabin crew member) during critical phases of the flight unless this would be impracticable due to a low number of passengers or might negatively impact the mass and balance limitations.
- d) While all passengers shall act according to safety directions given by the crew during the evacuation process, the reaction of passengers seated in an emergency exit row is even more vital. The crew commands will vary depending on many factors (e.g., the nature and location of the emergency, potential fire, and other dangers outside or inside the aircraft). It is essential that passengers seated in emergency exit rows are well briefed to ensure they understand how and when to open specific exits and when the exits should not be opened.
- e) The following considerations are relevant when developing procedures for identifying suitable persons and the assignment of those persons to emergency exit rows seats.

7.11.2 The Passenger's Seat Assigned:

- a) Are sufficiently able-bodied to meet the functions required to operate an exit and assist with the rapid evacuation of the aircraft. For example:
 - 1) Having sufficient mobility, strength and dexterity in both arms, both hands and both legs;
 - 2) Be of a minimum age (as established by the air operator) to ensure that they have the physical, cognitive, and sensory capacity to operate the exit;
 - 3) Not be responsible for another person;
 - 4) Not be travelling with any animal in the cabin;
 - 5) Not have a condition that might cause them harm by opening the exit; and
 - 6) Not have any other condition that might slow the opening of the exit or the flow of passengers, or impede the pathway.
- b) Would not, because of a condition or disability, including an inability to understand oral instructions, adversely affect the safety of other passengers or crew members during an evacuation or the aircraft crew in carrying out their duties in an evacuation.
- c) Are willing to provide an assistance in an emergency evacuation should it be required.
- d) Are provided with an adequate safety briefing specific to their responsibilities in an emergency.
- e) It is recommended that the air operator's procedures include eligibility criteria that passengers should meet to occupy seats located in an emergency exit row.

- f) It may be difficult for the air operator or its operational personnel to assess a passenger's abilities and language comprehension; therefore, it is important that procedures be developed to assist personnel and crew in validating the selection criteria and occupancy restrictions of an emergency exit row.
- g) Assigning suitable passengers to emergency exit row seats prior to boarding the aircraft is preferable. To facilitate this, it is recommended that, in addition to cabin crew, the procedures are provided to personnel that:
 - 1) Accept passengers at check-in;
 - 2) Assist with check-in at kiosks;
 - 3) Are responsible for passenger boarding.
- h) Where passengers are able to use electronic media to select exit row seats and check in without coming into contact with the air operator's personnel (e.g., self-service check-in options such as kiosks or the internet), a means of screening those passengers for suitability will need to be addressed in the procedures.
- i) The air operator procedures should clearly indicate persons who may not, under any circumstances, occupy an emergency exit row seat e.g. passengers who do not/will not accept responsibility for the emergency exit, the procedures should include but not limited to:
 - 1) Procedures should be established to allocate duties to a crew member (or members) for assessing the suitability of emergency exit row passengers once they have boarded the aircraft.
 - 2) It is recommended that the procedures for the pre-flight individual emergency exit seat verification include:
 - i) Visual assessment by an assigned crew member to determine suitability of each passenger occupying an exit seat;
 - ii) Verbal assessment by an assigned crew member to determine suitability of each passenger occupying an exit seat;
 - iii) A request to read over the safety information briefing card regarding exit seating;
 - iv) Agreement from each passenger occupying an exit seat that they are willing and able to assist in an emergency evacuation;
 - v) Informing the assigned personnel that exit seat verification has been confirmed before boarding door closure.
- j) In addition to operating the emergency exit, passengers seated in an emergency exit row should understand the verbal commands of the crew during the evacuation process. Commands may vary depending on the nature and location of the accident, potential fire, or other danger outside or inside the aircraft. Therefore, it is critical that passengers seated in emergency exit rows understand all commands given by the crew (e.g. when to, and when not to, open exits).

- k) The need to re-assess passengers seated at an emergency exit row prior to landing to ensure ongoing suitability should be considered e.g. a passenger may have become ill, intoxicated, or sedated during the flight, or been re-located to another seat. In any of these cases, a different passenger could be seated in the exit row during descent and would not have received the individual safety briefing and suitability assessment prior to flight.

7.11.3 Managing Safety Risks

- a) The safety risks associated with not having appropriate briefings and suitable persons seated at unstaffed exits include, but are not limited to:
 - 1) A reduction in the number of exits available for evacuation where crew members are unable to get to the exits to open them, e.g., available exits are not opened;
 - 2) Delays in opening available exits, resulting in delays to the evacuation process;
 - 3) Exits being opened when they should not be, e.g., a passenger opens the exit without assessing the outside conditions;
 - 4) Operation of exits by passengers who are not aware of the instructions specific to that exit, e.g., how to open, remove and discard the exit;
 - 5) Passengers seated in an emergency exit row having an adverse reaction to the emergency due to inadequate briefings;
 - 6) Passengers that are not suitably able-bodied, lacking the strength and ability to remove the exit, attempting to open the exit, and delaying or impeding an evacuation process;
- b) It is recommended that these safety risks be considered in the development of procedures to mitigate potential adverse situations at these exits during an emergency.

7.11.4 Emergency Exit Row Occupant Briefing

- a) Although an unstaffed exit may contain placards with operating instructions, passengers who have not been briefed may be unable to operate it as expected in the event of an evacuation, or fulfil the responsibilities expected of persons seated in an emergency exit row. In the absence of a briefing, safety may be compromised.
- b) Specific emergency exit row briefings lead to increased passenger awareness, improved performance in an evacuation, and a higher level of safety. They provide the necessary information to passengers not only on the operation of exits, but also on the responsibilities of sitting in emergency exit rows where cabin crew are not present.
- c) For expanded guidance on emergency exit row briefings, refer to TCAR OPS Parts CAT.OP.MPA.170 - Passenger briefing.

8. Baggage Handling Procedures

8.1 General

This chapter outlines the standard baggage handling procedures that air operators are required to establish.

8.2 Baggage Acceptance Procedure

- a) The baggage acceptance procedure shall be established to ensure safe transport of passengers' property that only authorized and properly labelled baggage is accepted for transport and minimize the risk of injuries to persons and damage to the aircraft throughout all phases of activities.
- b) The air operators shall clearly define the duties and tasks related to baggage acceptance and assign competent personnel to complete those duties and tasks as per the required standards.
- c) The procedures for baggage acceptance and handling shall cover the following main safety objectives, as applicable depending on the type of operation:

8.2.1 The Types of Baggage

They shall include, as a minimum, the following categories:

- a) Cabin baggage;
- b) Checked baggage; and
- c) Special baggage.

The requirements on transporting dangerous goods in passenger baggage shall be applied as per the ICAO Technical Instructions and applicable regulations for the Safe Transport of Dangerous Goods by Air

8.3 Cabin Baggage

The air operator should set their standards for size, weight and number of pieces permitted as cabin baggage. Cabin baggage which includes:

- a) Baggage carried within the air operator's standard free carry-on baggage allowance.
- b) Free carry-on items permitted by the air operator in addition to the standard allowance (e.g., purse, laptop, duty free item(s), winter coat).
- c) Special items permitted by the air operator that may require prior arrangement, notification and/or specialized screening and/or additional charges (e.g., urns containing human remains, pets, medical equipment, valuables).
- d) For items of dangerous goods permitted in cabin baggage, including those items that require prior approval by the air operator.

8.3.1 Cabin Baggage Acceptance Conditions

The air operators shall clearly define the conditions for cabin baggage acceptance and the baggage weighing method in the air operator's operations manual, including activities at check-in, at the boarding gate, and/or accepting cabin baggage into the cargo hold.

The air operators shall ensure the procedure for acceptance includes the following:

- a) The procedures for weigh/measure size of passenger's baggage;
- b) The procedures to handling for items that are unacceptable, oversized, overweight or exceed the number of pieces as free cabin baggage;
- c) The final number of pieces, the actual or standard weight of checked baggage, and their location as per the Load Instruction Report (LIR) shall be correctly recorded in the system for load control purposes or handed over to the flight crew when the load sheet is arranged.

8.4 Checked Baggage

The air operators shall establish the Checked Baggage procedures, and ensure the passenger baggage that has been taken into custody by the air operator and for which a baggage claim check has been issued to the passenger; includes cabin baggage that has been taken from a passenger and carried in the cargo hold of the aircraft on which the passenger is traveling but remains inaccessible to the passenger during the flight.

8.4.1 Checked Baggage Acceptance

The air operators shall establish the procedure to ensure the requirements below;

- a) Ensure that every piece of checked baggage have a baggage tag attached, showing the tag number, flight number, appropriate destination and the passenger's name or equivalent.
- b) Ensure each of checked baggage has been weighing and recorded. The air operator's procedures may specify a maximum single item weight and number of pieces' information, if applicable.
- c) Ensure the number and weight of each piece of checked baggage has been transferred automatically or manually to the load control process. When special baggage is accepted, ensure the person in charge of the weight and balance calculation task is informed accordingly.
- d) The air operators shall specify the checked baggage regular weight limitation for general baggage and baggage is considered bulky or oversized and its weight exceeds regulatory limits. For example, in general, baggage accepted at European aerodrome may not exceed 32 kg in weight, although exceptions may exist (e.g., wheelchairs).

8.5 Special Baggage

The air operators shall establish the procedure for handling the special baggage and special items, which include:

- a) Cabin Seat Baggage Handling;
- b) Loading and Lashing Cabin Seat Baggage;
- c) Crew Baggage;
- d) Sporting Equipment;
- e) Wheelchairs and Other Mobility Aids;

- f) Acceptance of Pets in Cabin and Live Animal in Hold; and
- g) Service Animals.

8.6 Baggage Tagging

The air operators shall establish the baggage tagging procedure and should be in place to ensure accurate tracking and tracing of baggage throughout its journey.

- a) Remove all old baggage tags, handling labels if not applicable and baggage reconciliation tags
- b) Every piece of checked baggage shall be tagged for easy identification and tracking upon baggage acceptance.

8.6.1 Baggage Tagging Procedure

Baggage tagging procedure should be covered:

- a) Issuance of baggage tag for checked baggage, containing a unique baggage number, the passenger's name or equivalent, flight number;
- b) Baggage tags are clearly readable or legible, regardless of the method of issuance;
- c) Additional information necessary for the safe handling and transport of the baggage is made visible on the baggage, either on the regular tag or by additional tags, stickers or labels;
- d) The appropriate destination on the baggage tag is indicated in accordance with the air operator procedure.

8.7 Baggage Sorting

When baggage sorting procedure is established, it shall be performed taking into account the operational context including but not limiting to the air operator's procedure, the system used, and the aerodrome facilities. Baggage should be sorted efficiently to ensure it is directed to the correct aircraft and destination. Proper segregation of baggage, based on its final destination and transfer status, is crucial to avoid mishandling.

8.8 Baggage Loading and Unloading

- a) The loading of baggage shall be performed in accordance with the loading instructions provided by Load Control. Loading procedures should be carefully followed to distribute baggage evenly within the aircraft, ensuring safety and optimal weight distribution.
- b) When Unit Load Devices (ULD) are used for baggage loading, the air operators shall ensure that those ULD are within the acceptable limits established according to the manufacturer instructions and empty before use.
- c) Any Last-Minute Changes (LMC) related to baggage loading such as addition or removal of any checked baggage shall be transmitted to Load Control.
- d) Once the unloading is complete, the person in charge shall check the cargo compartment(s) to ensure all items have been unloaded.
- e) When require, the Loading and unloading should be executed with the correct Ground Support Equipment (GSE) for the aircraft type and task as appropriate.

8.9 Transfer Baggage Handling

Transfer baggage shall be processed in accordance with the air operator's procedure and shall observe the security and aerodrome procedures as applicable at each aerodrome. Procedures for handling transfer baggage between connecting flights should be appropriately coordinated to minimize the risk of misconnections.

8.10 Mishandled and Unclaimed Baggage

The air operators shall establish the procedure for handling mishandled and unclaimed baggage, including procedures for locating lost baggage, reuniting, storage, the disposal process, and communication with passengers, as quickly as possible.

8.11 Baggage Reconciliation

The air operators should establish the baggage reconciliation procedures and should be carried out regularly to verify and ensure that all loaded baggage belongs to passengers on board and that no baggage has been left behind.

9. Cargo/Mail Handling

9.1 General

All shipments on board of an aircraft shall meet the safety and security requirements. The air operators shall establish procedures for the safe transport of cargo. These procedures shall include:

- a) Cargo acceptance and preparation for loading of cargo;
- b) Special cargo;
- c) Company Mail (Co-Mail)/Company Material (COMAT)
- d) Securing of load;
- e) Airworthiness of Unit Load Device (ULD);
- f) Cargo Weighing Process;
- g) Notification to Captain (NOTOC).

9.2 Responsibilities

All personnel involved in accepting, preparing, storage, build-up, loading and unloading cargo are responsible for ensuring correct and complied with regulations and procedures as outlined in operations manual.

9.2.1 The Shipper (Consigner)

Responsible for ensuring that any consignment delivered for air transport is packed, marked and labelled correctly and completely as prescribed in the operations manual or applicable regulations and the required transport documentation associated with the shipment (e.g., air waybill, similar documents, dangerous goods and/or custom declarations, etc.) is provided. Only shipments that meet the requirements for air transport are to be declared ready for carriage and shall be admitted to the aircraft.

9.3 Cargo Acceptance and Preparation for Loading of Cargo

The air operators shall establish and implement a procedure for the cargo acceptance and preparation for loading of cargo, to ensure that the cargo processing and handling will be performed so as to minimize any safety risk regarding the aircraft and the personnel.

Cargo/ Shipment should pass an acceptance check in order to be declared airworthy/ready for carriage by air operators or Ground Handling Service Provider (GHSP). If deficiencies are found during the acceptance check, cargo/shipment shall be classified as not acceptable (not ready for carriage) until the flaws have been removed.

In general, cargo shall be packed using containers, (box) pallets or UNI-PACK. If this is not possible because the amount of cargo is limited or requires special handling. All packages shall be in an airworthy condition and closed, covered or sealed in such a way that unauthorized manipulation is generally prevented.

9.3.1 Cargo Acceptance and Preparation for Loading of Cargo Procedure

The procedures for cargo acceptance, the storage of cargo after acceptance, and preparation for aircraft loading shall be provide for:

- a) Security in all aspects including aviation security measures as mandated by CAAT not only for security of valuable cargo, but reducing to a minimum the possibilities of damage, pilferage and mishandling of all cargo;
- b) Segregation of, and suitable storage facilities for, special types of cargo such as dangerous goods, live animals, perishables, vulnerable and valuable cargo;
- c) Methodical and speedy pre-loading operation whereby the entire load may be pre-assembled in accordance with aerodrome requirements.

It is important that the correct acceptance procedures are applied if the shipment is to reach its final destination. The air operators shall be paid attention to ensuring accurate completion of documents, packaging, labelling and compliance to the state regulations. The primary objective of conducting cargo acceptance checks is to ensure that shipments are in an airworthy condition (ready for carriage) and comply with all the applicable regulations.

9.4 Cargo Documentation

The air operators shall ensure that cargo documentation is provided depending on the type of cargo to be transported and the countries of departure, transit, and destination. These documents shall accompany the shipment upon delivery at the aerodrome. For imports and exports, the cargo shall comply with the applicable customs regulations.

9.5 Unacceptable Cargo Conditions

The air operators shall specify the unacceptable cargo/shipments conditions to be excluded from carriage which include when:

- a) It does not meet the requirements of security and acceptance checks;
- b) It may damage or contaminate the aircraft or other load;
- c) Special handling instructions cannot be observed.

If any deficiencies are found and the cargo and/or its documentation are not considered secure or acceptable, the cargo/shipment shall be classified as not ready for carriage until all the flaws have been eliminated.

9.6 Labelling and Marking

The air operator is responsible for clearly marking and labelling all packages in a consignment with the consignee's full name and address. To enable identification of the cargo and to indicate if special handling instruction are applicable/should be obeyed, additional markings and labels are required to be affixed. Special markings and labels shall be used for:

- a) Dangerous goods/hazards;
- b) Fragile articles;
- c) Live animals;
- d) Perishables;

- e) Priority items;
- f) Other handling labels as required (special handling instructions such as this side up, keep out of sunlight, temperature controlled, etc.);
- g) Track and trace as applicable (e.g. Barcodes, RFID, etc.).

Every dangerous substance shall be provided Hazard Label and properly packed when delivered by air transport. This includes the use and proper application of accurate labels. The personnel handling the goods shall be familiar with the procedures to be followed for the packages and indications (labels) provided.

9.7 Special Cargo

The air operators shall establish procedures for the handling of special cargo. The following items can be considered special cargo:

- a) Pharmaceutical products,
- b) Live animals,
- c) Perishable items,
- d) Fragile items,
- e) Valuable cargo,
- f) Diplomatic cargo,
- g) Human remains,
- h) Large and/or heavy items, such as parts of whole automobiles, train cars, aircraft parts, etc.,
- i) Any other items that require special handling and/or transport.

9.8 Company Material (COMAT)/ Company Mail (COM)

All Company Materials (COMAT) and/or Company Mail (COM) belonging to the air operator may be accepted for air transport, but shall be subject to the same acceptance processes as detailed for other cargo.

Customs, state regulations and local aerodrome procedures shall be followed concerning the acceptance of incoming and outgoing company mail.

9.9 Securing of Load

The air operators shall be provided with the procedures and instructions to ensure that all individual items of load are restrained and secured in the aircraft in accordance with the air operator's instructions.

9.9.1 Restraint

The air operators shall ensure that:

- a) Restraint can be achieved by filling the compartment, net section, or ULD volumetrically, or by tie-down;
- b) Compartments, net sections and ULDs which are filled up to three-quarters of their heights are considered to be volumetrically full;

- c) Pieces weighing 150 kg or more, when bulk-loaded in compartments or net sections, should always be tied down, except that tie-down is not necessary on single sector flights when the compartment/net section is volumetrically full;
- d) Pieces weighing 150 kg or more, when packed in ULDs, should be individually tied down, except when the unit is volumetrically full; and
- e) All ULDs shall be correctly closed and secured in the aircraft.

9.9.2 Lashing

The Air Operators or Ground Handling Service Provider (GHSP) should ensure that uses lashing equipment to meet the restraint requirements:

- a) Lashing equipment and lashing rings (except for standard pallet restraint equipment, compartment nets forming part of the aircraft standard equipment, ropes and webbing) shall be marked permanently with the breaking strength in kg. In the interest of efficiency, the breaking strengths should be limited to a few convenient values, such as 500 kg, 1,000 kg, 2,250 kg and 4,500 kg. Only equipment for which a definite breaking strength can be ascertained should be used.
- b) Lashing and binder materials used for the tie-down of cargo (straps, chains, nets, etc.) are required to be certified and be in an airworthy condition. These items should therefore pass a visual inspection prior to their use. They may only be used when considered to be in a serviceable airworthy condition and when allowed by the operator.
- c) All materials (straps, chains, etc.) that are provided with an expiry date (maximum shelf time or date of use), recertifying or calibration dates, shall not be used after the indicated dates.
- d) The Operations Manuals should include a table showing the number of lashings required in each direction to restrain a given weight with a specified breaking strength of lashing material.

9.10 Airworthiness of Unit Load Device (ULD)

The Air Operators has the responsibility to carry on its aircraft only those Unit Load Devices (ULDs) that meet the Minimum Performance Standards required by the aircraft manufacturer. To ensure compliance, Air Operators shall ensure that the ULD has not incurred any damage greater than the Allowable Damage Limitation outlined in the Operations Manual and continues to meet the required Minimum Performance Standards.

9.10.1 General

The Air Operators should be familiar with the different operational requirements for Certified and Non-Certified ULD. The Air Operators shall provide clear instructions to all competent personnel on the suitability of Certified and Non-Certified ULD to be loaded on the aircraft.

Effective and efficient use of airworthy ULDs enhances flight safety, leads to fewer assets loaded, saves ground time and effort and supports prevention of flight delays.

9.10.2 Pre-Use Inspection of ULD

- a) The Air Operators shall ensure that the Unit Load Device (ULD) is airworthy. Before building up any ULD, the Air Operator shall carry out a visual inspection of the ULD to confirm that there are no damages that exceed the allowable damages limitations. the ULD should be inspection for punctures, distorted or delaminated panels and damaged or missing securing and operating mechanisms and not used if unserviceable.
- b) The Air Operators should establish procedures to ensure that the pre-use inspection is not overlooked and maintain evidence that the pre-use inspection has been carried out by competent personnel.
- c) During the ULD pre-use inspection, Operators shall:
 - 1) Pay attention to all items listed on the Operational Damage Limits Notice (ODLN) or equivalent information;
 - 2) Check the operation of moving parts such as doors, and any safety components such as locks and straps;
 - 3) Ensure that no parts of the ULD are obstructed and unable to be inspected;
 - 4) Untangle cargo nets before inspection; and
 - 5) Consult a supervisor if in any doubt

9.10.3 Checks at Aircraft

The Air Operators or Ground Handling Service Provider (GHSP) who have responsibility for loading ULDs to an aircraft should perform the final check on the ULD's suitability, airworthiness or serviceability. During loading the Air Operator or GHSP shall:

- a) Ensure that the ULD is within the correct contour for the aircraft;
- b) Ensure that the ULDs being loaded do not have any damage greater than that indicated on the ODLN;
- c) Ensure that the ULD doors are properly closed and nets correctly fitted and tensioned;
- d) Ensure that cargo is loaded properly so that the cargo does not prevent the ULD from being correctly locked to the aircraft floor

In case a ULD is found to be unacceptable for loading during the final check, rectification procedures such as temporary repair or restriction of the operating conditions can be carried out if permitted, otherwise the contents of the ULD should be reloaded to another ULD.

9.11 Cargo Weighing Process

Differences between the planned and actual cargo weight can endanger the aircraft and/or affect its performance in a negative way. Therefore, the use of planned or customer-provided weights for any cargo shipment is strictly prohibited.

The Air Operators or Ground Handling Service Provider (GHSP) are responsible for preparing the cargo and its documentation shall use only confirmed actual weights. All baggage and cargo delivered by air shall be weighed, properly marked and recorded by competent personnel. This applies also to shipments packed in

air cargo containers and/or pallets (ULD) prior to their release to an aircraft. The Air Operator shall be declared weight indicator either be kilograms (kg) or pounds (lb.).

The actual weight of these consolidated cargo shipments should be marked on applicable documents used for the load plan, ULD tagging, manifest preparation and information to the flight crew. Cargo, baggage and/or ULDs that have not been weighed by competent personnel shall not be delivered to an aircraft.

9.11.1 Cargo Scales

The Air Operators shall establish a schedule for cargo scale checks due to the importance of accurate weight indications for flight safety. The accuracy of cargo scales, weighing bridges, or other weighing equipment used to determine the weight of cargo loads shall be regularly verified by a competent personnel and/or organization and appropriately labeled.

In the event that weighing scales are found to be out of tolerance, they should not be used until they have been repaired, calibrated, or replaced.

9.12 Notification to Captain (NOTOC)

The Air Operators and/or Ground Handling Service Provider (GHSP) responsibility to prepare and to notify captains when dangerous goods and/or other special loads are included in the load.

The Notification to The Captain (NOTOC) shall be distributed in a minimum of two copies: one for the Captain and one for filing at the loading station.

9.13 Multi-Sector Flight

The Air Operators and/or Ground Handling Service Provider (GHSP) shall provide the Notification to Captain (NOTOC) to be retained on multi-sector flights involving new change(s) as follows:

- a) Each station issuing a NOTOC shall prepare a separate NOTOC form for each station En-Route. On arrival at each station, the competent personnel shall collect all copies of the NOTOC forms from the flight deck.
- b) The transit and/or joining NOTOC form(s) shall be presented to the outgoing Pilot-in-Command by the competent personnel as soon as he/she reports to the aircraft, or earlier as may be dictated by company procedures. The competent personnel/ loading supervisor shall sign the joining NOTOC form and obtain the Pilot-In-Command's signature. Changes or repositioning of transit dangerous goods shipment or other special loads shall be properly amended on the transit NOTOC form(s).

10. Airside Activities

10.1 General

The Air Operators shall establish procedures for the safe airside activities, to ensure that the risk of damage to the aircraft, equipment and vehicles on the ramp and injuries to personnel and passengers is minimized.

The airside activities shall be performed in accordance with the air operator procedures. When these are not provided by the air operators, the Ground Handling Service Provider (GHSP) shall apply its own procedures specific to the aircraft type.

10.2 Airside Safety

10.2.1 Working, Walking and Driving on the Airside

The Air Operators shall ensure that its personnel are trained and aware of working, walking and driving on the aerodrome airside areas.

- a) Engine Danger Areas: There is a particular risk of injury or damage in areas affected by aircraft engine intakes, exhausts and propellers. The risk is further increased if, for any reason, an aircraft stops and then applies additional thrust required to break away and continue its manoeuvre.
 - 1) Vehicles and personnel shall remain clear of aircraft danger areas when aircraft engines are running and/or the anti-collision lights are on.
 - 2) To prevent incidents and accidents caused by aircraft engines, personnel shall never position themselves or equipment in the following critical areas before/during aircraft departure and arrival:
 - i) Engine intake area;
 - ii) Engine blast area; and
 - iii) Propeller rotation area, where applicable.
 - 3) Ensure the engine intake/propeller rotation area is clear at all times when engines are running or when the engine start.
 - 4) It is forbidden to pass through the blast area while the engines are running.
- b) There shall be no persons walking or approaching the engine ingestion and blast areas when the engines are about to be started or are running.
- c) Persons shall be forbidden to approach the aircraft when the anti-collision lights are on.

10.3 Foreign Object Debris (FOD)

The Air Operators shall ensure that all personnel have a responsibility to ensure the risk of damage to aircraft from FOD is minimized. All waste material shall be properly disposed of such that it does not become FOD and all FOD shall be removed and properly disposed of as soon as it is discovered.

The following FOD checks shall be conducted prior to any aircraft movement and after servicing operations:

- a) Check GSE staging and parking areas near the area of operation;
- b) Do routine checks of GSE (including floors of enclosed cabins) to ensure everything is secure and operational, and not about to fall off and become FOD;
- c) In ramp areas, ensure anything carried in/on a vehicle is secured.
- d) Before aircraft arrival, conduct a FOD walk around of the aircraft parking stand, removing all FOD found.
- e) Dispose of all FOD in designated garbage bins, where provided or as per local arrangements. FOD bins should be enclosed, to avoid FOD being blown out by wind.

10.4 Equipment Restraint Area (ERA) and Equipment Restraint Line

The Equipment Restraint Area (ERA) is defined as the area of the apron where an aircraft is parked during ground operations. It may be indicated by a painted line. If no markings exist, local procedures shall establish safe parking areas.

The air operators shall establish the procedure to ensure that ERA free of personnel not involved in the aircraft arrival, obstructions, equipment before and during aircraft arrival and departure.

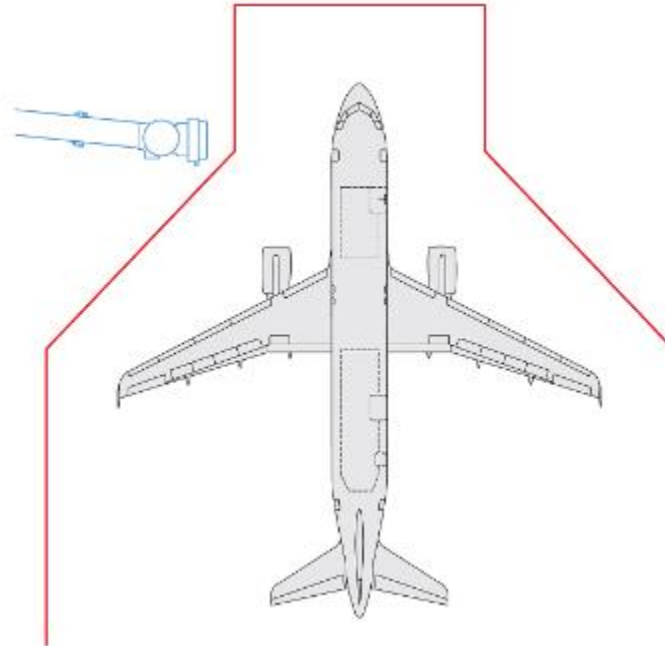


Figure 1 Equipment Restraint Area (ERA)

10.5 Ramp Safety for Operating and Working with Ground Support Equipment (GES) on the Ramp

The air operators are required to establish safety instructions for the competent personnel who operate and work with Ground Support Equipment (GSE) on the ramp. These procedures shall be followed whenever GSE is being operated on the ramp:

- a) Personnel shall only drive or operate GSE if trained and authorized for that specific equipment type.
- b) When operating any GSE, check the aircraft for possible damage in the equipment contact zone before positioning and after removal of GSE to/from the aircraft.
- c) Immediately report any damage found, or where contact has taken place or suspected to have taken place, especially for composite aircraft.
- d) Where damage has been found or where contact has taken place or is suspected to have taken place, do not move any GSE to/from the aircraft in the area where damage has been found until inspection is completed, and clearance given to proceed.

10.6 Personnel Protective Equipment (PPE)

The Air Operators should be provided and ensure that its personnel performing activities on the apron are wearing adequate Personal Protection Equipment (PPE) include:

- a) Safety footwear;
- b) Hearing protection;
- c) High visibility clothing;
- d) Gloves;
- e) Any other specified as required by air operators or aerodrome.

10.7 Adverse Weather Conditions

The Air Operators shall establish the procedures to operate in adverse weather conditions, in cooperation with the Aerodrome, Air Traffic Services, Ground Handling Service Provider (GHSP) and any other relevant parties operating at the aerodrome. The air operators shall ensure that competent personnel should follow the procedures during adverse or poor weather conditions, which may have a negative impact on aircraft handling activities and ground safety. If additional information is required, refer to supervisory personnel.

10.7.1 Procedures for Adverse Weather Conditions

These procedures should cover at least the following situations:

- a) Slippery Apron Conditions;
- b) Storms-Lightning;
- c) High Winds;
- d) Low Visibility and Sandstorm; and
- e) Intense Heat.

10.8 Coordination of Turnaround Activities

If the turnaround coordination is required by air operators, the Ground Handling Service Provider (GHSP) and air operator shall agree on the means to ensure safe coordination of turnaround activities to minimize the risk of damage to the aircraft, other vehicles on the ground and injuries to persons and to avoid any duplications of the same procedures.

Air Operators and the Ground Handling Service Provider (GHSP) shall have a written procedure to describe the following aspects:

- a) Elements that need to be observed;
- b) Whether this activity is performed by a person or an automated device;
- c) Who is responsible for this activity;
- d) Tasks associated to this function;
- e) Ensure that the number of tasks per person does not jeopardize the safety of activities;
- f) The procedure is disseminated to all the persons involved.

The turnaround procedure applied to each aircraft shall observe the aircraft type and aircraft limitations.

10.9 Hand Signals

To standardize ground personnel to ground personnel communication and/or ground personnel to flight crew communication and/or flight crew to ground personnel communication, the following hand signals are defined as appropriate:

- a) **Guide Person Hand Signals** to be used by a specific guide person in direct liaison with the GSE operator to facilitate movements of any type of GSE.
- b) **Marshalling Hand Signals** to be used by ground personnel to assist the flight crew during manoeuvring of the aircraft and engine starting.
- c) **Technical/Servicing Hand Signals** to be used by ground personnel to communicate technical/servicing information to flight crew, and by flight crew to communicate technical/servicing information to ground personnel.
- d) **Aircraft Movement Hand Signals** to be used during the tractor/towbar or towbarless connection/disconnection process, as well as at the start and end of the aircraft ground movement operation.

10.9.1 Standards and Requirement

The air operator shall establish the procedure and ensure that person giving the hand signals shall:

- a) have been trained and authorized;
- b) Wear a high visibility vest;
- c) Use illuminated flashlights/aircraft marshaling wands to improve the visibility of the hand signals in situations of insufficient apron lighting, poor visibility, night conditions or when required by local airport authority;

10.10 Aircraft Chocking

The air operator shall establish the procedure of aircraft wheel chock placement and shall ensure that:

- a) The required number of serviceable chocks are available, considering the aircraft type and weather conditions.
- b) Chocks shall be kept clear of the guide-in line and in a safe area away from arriving aircraft and engine danger areas.
- c) Chock shall be placed and in positioned as outlined in the air operator manual.

10.11 Aircraft Coning

Safety cones are a caution sign for air operators/drivers to maintain required safety clearances. Cones protect parts of the aircraft against collision by GSE. The air operator shall establish procedure to ensure that:

- a) Prior to arrival of the aircraft, make sure there are sufficient serviceable safety cones to protect the aircraft type to be handled.
- b) Place safety cones on the ground in accordance with the point where the aircraft is being protected.

10.12 Aircraft Access Doors

The air operators and/or Ground Handling Service Provider (GHSP) are required to establish the procedures to ensuring that:

- a) Ground personnel shall not operate any aircraft access doors unless they have been trained and authorized to do so;
- b) Aircraft access door operation shall be performed in accordance with operating air operator procedures for the applicable aircraft type and, applicable the markings labelled on the door.
- c) All ground personnel shall follow procedures as outlined in the air operator's manual;
- d) Cabin access doors shall only be operated or left in the open position if there is a Ground Support Equipment (GSE) or a Passenger Board Bridge (PBB) with platform at its final height positioned at the door or if an appropriate fall prevention device is placed across the door.
- e) The Standard Operating Procedure (SOP) encompass procedures for the Opening, Reopening, and Closing of all aircraft access doors, including both Passenger and Cargo Doors.

10.13 Pushback and Towing

The air operator shall develop procedures for pushback and towing operations in accordance with aviation standards and implement those procedures when they are not provided by the aircraft manufacturer. These shall cover, as a minimum:

- a) How to connect the pushback vehicle and towbar;
- b) In the case of towbarless pushback, how to connect the towbarless vehicle;
- c) Preparing the aircraft for towing;
- d) Communication and coordination between flight crew and competent personnel who perform aircraft pushback;
- e) Alert flight crew of the loss of communications during pushback/towing; and
- f) Towing operations in adverse weather or meteorological conditions.

The air operator shall ensure that the personnel involved in the aircraft pushback and towing maneuvers are trained and competent to perform the tasks as per the required standards.

11. Aircraft Turnaround

11.1 Introduction

An aircraft turnaround is a highly complex, multi-disciplinary operation, involving different stakeholders whose correctly sequenced services are essential for efficient on-time performance. The key parties involved are:

- Air Operators
- Ground Handling Service Provider (GHSP)
- Aerodrome/Airport

Each of the multitude of services necessary to perform a turnaround has a defined “start time” and “end time”. The start time and end time of each of these activities, together with their sequence are what need to be monitored to ensure a successful “on-time turnaround”.

The air operator should typically define their turnaround plan by assigning a start and end time to each task. The time allocated to each turnaround and each task depends on different factors:

- a) Aircraft type
- b) Flight type (e.g., scheduled, transfer, charter, ferry, international, domestic)
- c) Aerodrome and/or local procedure, as applicable
- d) Time allocated for specific services such as additional security checks, anti-icing/de-icing etc.

11.2 Aircraft Arrival

The air operator shall establish aircraft arrival procedures to ensure that the operational risk to an aircraft, other vehicles, and injuries to persons during arrival is minimized and define the responsibilities for those who perform an inspection of the assigned parking stand prior to aircraft arrival. This inspection should check the following:

The air operator should establish the procedure and define the responsibilities for those who perform an inspection of the assigned parking stand prior to aircraft arrival. This inspection should check the following:

- a) FOD check on entire stand and removing all debris.
- b) Stand surface conditions
- c) Ensure that the aircraft path and ramp area are free of objects and obstacles due to which the aircraft may strike or endanger others due to jet blast effects.
- d) Stand free of GSE and personnel.
- e) Ensure that the aircraft docking guidance system is operating, or marshalling staff is present.
- f) Ensure that additional ground personnel (such as wing walkers) are present (if required).

11.3 Aircraft Securing on the Ground

The air operator shall develop procedures to ensure that the aircraft is secured against any unintended movement while being on the ground.

11.4 Aircraft Loading and Unloading

The air operator shall establish procedures for aircraft loading and unloading to include the following elements:

- a) the aircraft load is within the structural and operational limits and the aircraft CG is observed.
- b) the aircraft is correctly loaded, in accordance with the loading instructions, and any loading specifications and requirements related to dangerous goods and to other special cargo, mail or baggage items are observed as define in GM Chapter 8 of this chapter.
- c) the aircraft unloading is performed in accordance with the unloading instructions issued prior to the aircraft arrival and the aircraft stability is ensured during unloading and passenger disembarking.
- d) the load is properly secured to prevent any movement during flight or damage to other items in the cargo compartment, the aircraft, and its occupants, the risk of damage to the aircraft and personnel during arrival at a stand is minimized. (refer to the procedure in this GM Chapter 9).

11.5 Loading Supervision

The air operator shall establish the procedure to ensure that the aircraft loading and unloading at the apron is supervised by competent personnel, in order to:

- a) Monitor the unload and document it in case of deviations from the loading instructions.
- b) Confirm the transit load location, ULDs and bulk load are in accordance with the Transit Load information received from the loading station and report any variance to Load Control for the onward flight and the air operator.
- c) Confirm loading is carried out as specified by the final Load Instruction Report (LIR).
- d) Report to Load Control – the person responsible for load sheet preparation – any deviation from planned load or loading and any special, overweight or non-standard items presented for loading not already included in the LIR.
- e) Communicate final loading figures, including the last-minute changes (LMC), to Load Control.

The air operator shall ensure that the personnel performing the aircraft loading are trained and competent to perform the tasks per the required standards.

11.6 Loading and Unloading of Dangerous Goods

The procedures for loading and unloading of dangerous goods should comply with the ICAO Technical Instructions.

11.7 Aircraft Departure

A departure is normally conducted with a dialogue between flight crew and the competent personnel in charge of the departure operation via an interphone. This procedure ensures the highest level of safety during departures based on a precise exchange of information. The competent personnel in charge of the departure operation shall maintain continuous contact with the flight crew and is responsible for the ground maneuver.

11.7.1 Aircraft Departure Activities

- a) The air operator shall establish aircraft departure procedures to ensure that the risk of damage to an aircraft and other vehicles and injuries to persons during departure from the stand is minimized.
- b) The air operator shall develop the communication procedure including phraseology / standard hand signals between flight crew and the person responsible for the departure operation.

Intentionally Left Blank

12. Carriage Assistance Animal

12.1 Permission to Carry Assistance Animal in The Passenger Cabin [AMC2.CAT.OP.MPA.160]

- a) This GM describes some of the factors that should be considered before giving permission for an assistance animal to be carried in the cabin of the aircraft.
- b) When determining whether to grant permission for the carriage of an assistance animal in the aircraft cabin, the following considerations are relevant:
 - 1) The reason for the carriage of the animal and whether the animal is in the company of its owner/handler/trainer;
 - 2) Whether the animal has been trained to a standard of behaviour and hygiene that is appropriate for travel in the passenger cabin of the aircraft;
 - 3) Whether the owner/handler/trainer has been trained and will be able to control the animal on board the aircraft;
 - 4) What documentation or other evidence is required to help inform decisions on the above matters;
 - 5) Excreta containment;
 - 6) Adequate restraint of the animal at different stages of flight;
 - 7) Access to emergency exits;
 - 8) Passengers with allergies to, or phobia of animals.
- c) While crew members of air operators would be familiar with the need for a person with sight or hearing impairment to be assisted by a guide or hearing dog, there are other disabilities where other types of assistance animals may aid the person. Examples include medical alert dogs, psychological support dogs, and dogs that provide mobility assistance.
- d) The air operator or the pilot in command of a flight has final authority over the aircraft and may refuse carriage of an assistance animal if they believe there may be an adverse effect on the safety of the flight.

12.2 Operational Procedures

- a) Air operators are required to have procedures in their operations manual for the carriage of assistance animals.
- b) It is recommended that the procedures are included, but not limited to:
 - 1) Acceptance of assistance animals for carriage in the cabin of the aircraft;
 - 2) How the animal will be restrained and controlled so that it will not adversely affect the safety of the aircraft or the safety of persons on board;
 - 3) How excreta from the assistance animal, or water or other fluids provided for the animal, are contained so that these do not escape and present a risk to the safety of the aircraft and its systems.

- c) When establishing procedures for the carriage of assistance animals in the passenger cabin on passenger transport aircraft, the air operators need to consider whether the animal and its owner/handler/trainer have undergone appropriate training.

12.3 Seating Arrangements

- a) It is recommended that passengers with assistance animals be seated as close to an exit as possible. While exit rows and bulkhead rows may provide more space to accommodate an assistance animal, operators are reminded to ensure that regulatory requirements concerning emergency exits and safety are complied with.
- b) Air operators should be aware and sensitive to seating a passenger with an assistance animal near small children or other nearby passengers who may have a physical or psychological aversion to being near animals of the kind being carried.
- c) The following are relevant considerations when determining the required amount of floor space to provide for an assistance animal:
 - 1) The space allows the animal to assume other positions besides curling up and avoids them having to remain in a “tight curl” for any significant period, especially on long flights.
 - 2) The entry path of seat rows is wide enough for the animal to get in and out of the row without having to be squeezed through the space. An entry path for this purpose is measured from the front of the seat cushion to the back of the seat in front and affects the space available for an assistance animal to lie down.
 - 3) There is sufficient space to allow the passenger to sit with his or her legs and feet in a position that will not result in the assistance animal lying on the person’s feet or legs.
 - 4) The passenger can avoid placing his or her legs over the animal, which may result in injury to the person if the animal is startled or gets up quickly for any reason.
 - 5) The assigned seat for the passenger has minimal impediments under the seat (e.g., electrical boxes, entertainment, and safety equipment, footrests, and seat fasteners) to reduce the chance that the animal will become injured or accidentally damage equipment.

12.4 Restraint and Controlling the Animal

- a) The air operators should provide written evidence from the passenger that the assistance animal has been trained and accredited. This documentation may be issued by the training organisation or by the relevant government body.
- b) Procedural considerations include sufficient restraint of the animal at all stages of flight and always being under the control of the passenger. It is important that the method of restraint and equipment used be adequate and that the passenger be able to control the animal.
- c) Assistance animals may be restrained to a seat rail, seatbelt, or other means determined as suitable.

12.5 Controlling the leakage of excreta and water

The air operators should consider for the carriage of the assistance animals that excreta from the animal and water or other fluids provided for the animal are securely contained and do not escape. This is usually most readily done by placing the animal on an absorbent mat beside the passenger. If water is provided from the water supply on the aircraft, it is recommended that the water receptacle be made available to the animal for the shortest practicable time, be removed from the seating or other area when the animal has taken the water, and any spillage is wiped up immediately.

Intentionally Left Blank

13. Appendix A Categories of Passengers with Reduced Mobility

No.	Category	Description
1	Unaccompanied child	Need to verify the description with SFD
2	Adult travelling with an infant or/and child of less than 12 years of age	Need to verify the description with SFD
3	Mobility impairment	<p>This category of disability includes people with varying types of physical disabilities and includes upper or lower limb loss or disability, loss of manual dexterity and disability in coordination with different organs of the body. Mobility impairment can be either a congenital problem or acquired with age or the consequence of disease. Examples include cerebral palsy, muscular dystrophy, heart defects, dizziness, and balance problems.</p> <p>Persons with mobility impairments often use assistive devices or mobility aids such as crutches, canes, walkers, wheelchairs, or artificial limbs to assist with mobility.</p>
4	Vision impairment	<p>Vision impairment is a decreased ability to see to a degree that causes problems and is not rectifiable by usual means, such as glasses or medication. There are varying degrees of vision impairment, ranging from partially sighted or low vision through to totally blind.</p> <p>Passengers with some residual vision may function without the need for a cane or service dog and require minimal assistance when travelling. Regardless of the severity of impairment, however, it can restrict a passenger's ability to read signs, locate exits and see hazards, and they may have difficulty in unfamiliar settings.</p>
5	Hearing loss	<p>Hearing loss is when a person loses part or all of their ability to hear. Hearing loss may be mild, moderate, severe, or profound and affect one or both ears. Hard of hearing is a term that refers to someone with mild to severe hearing loss, and in these individuals, some hearing capability is still present. Deafness, on the other hand, refers to profound hearing loss, which implies very little or no hearing at all.</p> <p>There are several nonverbal communication techniques used by people with hearing loss, including sign language, lip-reading, and text. People who are hard of hearing can usually</p>

No.	Category	Description
		communicate through spoken language and can benefit from assistive devices such as hearing aids.
6	Deafblind	<p>Deaf blindness is the loss of sight and hearing to the point where a person’s communication, mobility, and ability to access information are impacted. A deafblind person won’t usually be totally deaf and totally blind, but both senses will be reduced enough to cause significant difficulties in everyday life.</p> <p>Due to the different degrees of vision and hearing impairment, people with deaf blindness use a range of communication techniques. Common forms include: sign language with a variety of ways of receiving a response such as close range, visual frame, and tactile; deafblind fingerspelling; print or braille, including print on palm, computer, and email; speech, oral and aural communication; and alternative and augmentative communication including touch cues, pictographs and keyword signs.</p> <p>Passengers who are deafblind may travel with an intervener who has specialised training to help them gain access to environmental information and facilitate communication.</p>
7	Communication impairment	<p>A communication impairment affects a person’s voice, language, or speech resulting in problems with articulation, pronunciation, and socialisation skills. A person with language impairment may have difficulty understanding spoken language and/or using spoken language to form sentences. Speech disorders are where the person has problems making and combining sounds in words so that people can understand. Some persons may be unable to speak and instead communicate by pointing to a picture or letters on a board or by typing their message on a device. Most persons who have speech or language impairments do not have hearing loss or a cognitive disability.</p>
8	Cognitive impairment	<p>Cognitive impairment (also known as intellectual disability) is a broad concept encompassing various intellectual or cognitive deficits including intellectual disabilities, learning disabilities, brain injuries, and diseases like dementia. Cognitive disabilities or impairments can affect a person’s ability to learn, communicate, concentrate, retain information, solve problems, and make decisions.</p>

No.	Category	Description
9	mental health impairment	<p>Psychiatric or mental health impairments are broad and range from mild depression, stress, and anxiety to chronic disorders such as schizophrenia or bipolar disorder. Mental health conditions affect a person's mood, thinking, and behaviour, and each disorder varies in its severity. Characteristics and symptoms differ between individuals and are typically "hidden" or not apparent unless they are disclosed.</p> <p>Mental health disorders are often episodic, and assistance may be needed to prevent or manage triggers or symptoms, such as those relating to post-traumatic stress disorder.</p>
10	episodic disability	<p>Episodic disabilities are long-term conditions that are characterised by periods of good health interrupted by periods of illness or disability. Examples include multiple sclerosis, asthma, epilepsy, diabetes, and arthritis.</p> <p>The symptoms and functional limitations can vary in severity and duration. Therefore, the level of assistance, or the requirement for any assistance at all, may likewise vary.</p>
11	hidden disability	<p>A hidden disability is a disability that may not be immediately obvious. They include but are not limited to dementia, autism, learning disabilities, anxiety issues, mental health conditions, visual impairments, and hearing loss. Hidden disabilities should also be considered to include non-visible physical disabilities such as epilepsy, respiratory conditions, and chronic pain.</p>
12	assistance animals	<p>A person with a disability who has an assistant or assistance animal brings an animal onto an aircraft for a flight, or</p> <p>An animal trained to assist a person with a disability in alleviating the effect of the disability, or</p> <p>An animal to assist a person with a disability in alleviating the effect of the disability and meet standards of hygiene and behaviour appropriate for an animal in a public place.</p>

Intentionally Left Blank