DHS GmbH
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Ground Operations Manual

Prepared for: All Station Managers and Operational Employees

Prepared by: DOM

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Part	Description of change
6.4.1 6.4.2 6.4.3	Passenger Handling Checklist adjusted Baggage Handling Checklist adjusted Ramp Handling Checklist adjusted

Content

0 INTRODUCTION

0.1. PURPOSE AND SCOPE

The Ground Operations Manual (GOM) defines the DHS ground handling procedures to ensure ground operations activities are safely, efficiently and consistently accomplished. This manual is based on the policies and procedures described in the IATA AHM and IGOM (edition 13).

The manual's content is reviewed and, if required, revised at least once every 12 months. DHS GOM will be reviewed and revised in accordance with the manual owner's decision following the publication of the new IGOM revision.

The procedures described in this GOM are valid and applicable if either:
1. An airline customer does not have its own Ground Handling Manual or
2. A specific procedure is missing/not described in an Airline Ground Handling Manual
3. In case an Airline GOM/GHM refers to IGOM

The GOM lays out principles, procedures, and instructions that all relevant personnel must adhere to. In cases where no provisions are made, they must use their own best judgment.

The GOM is organized as follows:

Wording Conventions:
May/need not/not necessary/not required: indicates conformance is optional.
Note: indicates an important point about which the manual user needs to be made aware.
Should/if possible/whenever possible: indicates conformance is considered optional, but desirable.
Shall/must/necessary/need/required: indicates conformance is considered mandatory.
Shall not/must not: indicates something is not allowed/permitted or is forbidden.

1 PASSENGER HANDLING PROCEDURES

1.1. PASSENGER DEPARTURE

1.1.1. PREDEPATURE ACTIVITIES

1.1.1.1. TICKET SALES COUNTER

If a ticket sales counter is located at the airport, display either electronic or manual versions of:

a. The operating airline's signage
b. Dangerous goods notifications
c. Handling forms, information on passenger rights and marketing material required by the operating airline, if applicable

1.1.1.2. PASSENGER PRE-FLIGHT PREPERATION

Prepare check-in for flights in accordance with operating airline procedures prior to the opening of web or airport check-in. Verify that all necessary data has been correctly transferred into the check-in system.

Review the booking status.

a. For code-share flights with an active blocked space agreement, check the allotment to ensure the block of seats, as agreed, is guaranteed to the partner.
b. Review the curtain version (cabin configuration) and adjust cabin capacity if applicable.
c. Confirm that the passenger name list (PNL) and additions and deletions list (ADL) were properly transmitted and match the booking status.
d. Block seats, if required, for security officers, crew, stretcher cases, weight and balance, and if seats are unserviceable.
e. Confirm the seating plan is set according to the actual aircraft type and version.
f. Review the flight remarks.
g. Record the passenger status on the passenger name record (PNR), if applicable (e.g., ticket issued, frequent flyer status, revenue/non-revenue/industry travel).
h. Review the boarding time, departure time, and gate. Brief staff about the reason for any delays.
i. Apply payload restrictions, if any.
j. Review the passenger list for special service requests (SSR) and all passengers requesting assistance (e.g., Wheelchair (WCH) assistance, unaccompanied minors (UM), service animals, special baggage) and preassign a seat as per operating airline procedures and the aircraft type.
k. Review notifications and handling instructions, if pre-advised for specific passengers and/or baggage by the operating airline.
l. Conduct a staff briefing for check-in agents.
m. If not pre-reserved, prepare seating for families traveling with infants or children, as per operating airline procedures. Check total infants booked and order additional life vests, if needed.
n. Where free/open seating is applied, inform the crew and passengers to ensure special category passengers have appropriate seats.

1.1.2. CHECK-IN COUNTER REQUIREMENTS

Prior to opening the check-in counters:

a. Start and test equipment.
b. Ensure scales are functioning and calibrated.

1. Scales must be calibrated and checked once a year or as required by the manufacturer of the scale or by the local authority responsible.
   i. The local authority will issue a certificate after the calibration and deliver it to the airport authority.
   ii. A copy of the calibration certificate is kept at each station as a record.
   iii. A sticker is placed on each scale after the calibration, if applicable.

2. The responsible Check-in Agent shall check that baggage scales are operating properly prior to check-in opening by:
   i. Checking the airport authority calibration sticker is current, if applicable.
   ii. Checking the weight indicator at the position to ensure it shows '0.0 kg'.
   - If the weight indicator shows otherwise inform the relevant airport authority department.
   - If the scale remains out of order, another check-in counter shall be requested.

3. The periodic check of scale accuracy used in the baggage handling process lies in the equipment owner's responsibility who is also responsible to make available to the ground handling services provider all relevant documentation, where applicable.

c. Stock boarding card and baggage tag printers as per operating airline procedures.

d. Ensure adequate stock of any other tags, handling forms, information on passenger rights and marketing material required by the operating airline.

e. Display signage required by the operating airline, and mark counters per class, customer status and/or as baggage drop off, if applicable.

f. Ensure dangerous goods notifications are prominently displayed. as per the requirements of the authority responsible.

g. Prepare check-in queues, stanchions, carpets, baggage gauges, podiums, etc., as per operating airline procedures.

1.1.3. PASSENGER CHECK-IN

1.1.3.1. PASSENGER CHECK-IN GENERAL

Check-in is the complete sequence of steps that involves the registration of passengers and their baggage in a departure control system (DCS) or manual system, the labelling of the baggage and the issuance of one or more boarding passes. Boarding passes containing the registered passenger's name and additional unique identifying data must be issued to all passengers, either on paper or electronically.

1.1.3.2. CHECK-IN DEADLINES

Apply check-in deadlines as per operating airline procedures, respecting applicable passenger rights and on-time departure requirements.

1.1.3.3. OPERATING CARRIER, MARKETING CARRIER AND WET LEASE

Advise the passenger of the operating carrier no later than at the time of check-in, if different from the one noted as the carrier on the ticket.

1.1.3.4. CHECK-IN TYPES

a. General Check-in may be provided at check-in counters or via self-service methods (e.g., web, kiosk, text message), and may be performed using a DCS or manually.
b. Manual Check-In
Where no DCS is available, apply established manual check-in procedures at a staffed check-in counter in accordance with the operating airline procedures for manual check-in.
c. Through Check-In
Through check-in means a passenger is accepted and receives boarding passes for the outbound flight as well as for one or more onward flights.
Perform through check-in whenever possible as per the interline agreement. Travel documents shall be checked for all through-checked parts of the journey.
d. Return Check-In
Return check-in means a passenger is accepted and receives boarding passes for the outbound and return flights. The check-in for the return flight is permitted if the flight is open as per operating airline procedures.
e. Self-Service Check-In
Web/mobile/kiosk/text check-in may be offered if the following conditions are met:

1. The passenger is holding an electronic ticket.
2. The passenger is departing from an airport where the operating airline's or DHS's DCS is in use.
3. The passenger meets any other qualifying criteria set by the operating airline.

f. Off-Site Check-In
Off-site check-in means the passenger is accepted at an off-airport location (e.g., train station, hotel), and may be permitted if:

1. The passenger is holding a valid ticket.
2. The location is an approved site.
3. The passenger meets any other qualifying criteria set by the operating airline.
4. Local off-site security processes are followed.

g. Back-Up Check-In Procedures
In the case of DCS and/or baggage handling system (BHS) failure a local back-up check-in system can be used, if available. Local back-up procedures must be established at every station in line with the operating carrier's procedures and tested regularly

1.1.3.5. CHECK-IN COUNTER OPENING

Conduct a staff briefing for check-in agents before the check-in counters open; receive and review any summarized flight information.

1.1.4. PASSENGER ACCEPTANCE

1.1.4.1. REQUIREMENTS FOR PASSENGER ACCEPTANCE

Apply operating airline procedures with respect to acceptance.

When accepting a passenger, observe the following:

a. Welcome and greet the passenger.
b. Ask for an itinerary/booking confirmation and an official travel document (e.g., passport), if necessary and verify validity (refer to GOM 1.1.5).
c. Pay attention to any signs that the passenger might not be allowed to travel (e.g., unruly behavior, illness). Certain categories of passengers may be refused travel at the operating airline's discretion. Apply operating airline procedures with respect to acceptance.
d. Identify the passenger in the check-in system, accept the passenger and assign a seat in line with operating airlines procedures (refer to GOM 1.1.4.2).
e. The acceptance of passengers on the waitlist is based on booking status and operating airline procedures.
f. Update passenger and baggage information to add any SSR to the DCS, if required, and apply any related fees in line with operating airlines procedures.
g. If required, apply irregularity handling in line with operating airlines procedures, (e.g., search for volunteers in case of over-sales).
h. Observe through check-in or return check-in, if applicable, and issue all related boarding passes.
i. Hand the boarding passes to the passenger and give information about the departure gate, boarding time and any flight irregularities, if applicable, in line with operating airline procedures.
a. Say goodbye and show the direction to the boarding gate.

Note: Certain categories of passengers may be refused travel at the operating airline's discretion.

1.1.4.2. SEATING

Each passenger (except infants not occupying a separate seat) is assigned an individual seat number on each flight. Depending on the airline's seating procedure, the seat choice is offered auditable="yes" at the time of reservation or check-in.

At the time of passenger acceptance:

a. Check to confirm if a seat has been allocated already.
b. If not, allocate a passenger seat observing passenger requests, if any, and operating airline procedures for seating of special categories of passengers.
c. Observe seating restrictions for the emergency exit rows (See GOM 1.1.4.3).

The allocation of jump/crew seats may be permitted by operating airline procedures.

1.1.4.3. EXIT ROW SEATING

Occupancy of emergency exit rows is restricted in accordance with operating airline procedures and host state requirements.

Before assigning an exit row seat to a passenger, verify the passenger is of a correct age, willing, physically and mentally able to open the emergency exit in case of an emergency evacuation, and able to understand the instructions given by the crew.

Note: For safety reasons, passengers with a disability, unaccompanied minors and passengers with children and/or infants are not allowed to be allocated an emergency exit row seat

1.1.5. DOCUMENTS REQUIRED FOR TRAVEL

1.1.5.1. PASSENGER DOCUMENTS

Passenger documents consist of:

a. Travel document (e.g., passport or national identify card, residence card).
b. If required, residence card, visa (e.g., entry or transit visa).
c. Health documents, if required–(e.g., vaccinations or other health-related proofs and requirements, which might be required to be presented by passenger before travel. Other additional documents may include quarantine hotel confirmation, approval level of entry).

Note: The regulatory framework, including these health proofs as well as the responsibility for an airline, are provided by ICAO Annex 9 and by the World Health Organization (WHO).

Staff responsible for check-in and or boarding shall verify passenger documents and ensure an improperly documented person is not allowed to travel.

1.1.5.2. VERIFICATION

a. General

Verification is a process also known as document check, carried out by staff charged with responsibility of check-in and/or boarding at the point of embarkation.

Document check controls use various technologies and can occur at various points of the passenger journey including the airline website/mobile application or at the airport through self-service check-in options up to the boarding gate. The depth of the controls will also depend on the flight destination and risk profile.

Increasingly, the use of trusted digital identities allows passengers to assert their identity earlier in the journey, reducing the need for face-to-face interaction with an airline's agent, especially when touchpoints are biometrically enabled.

However, the complexity of the entry requirements of the transit and/or destination country(ies) and depending on national legislations, the document check controls may have to be performed manually.

Note: Verification of travel documents is performed visually and manually. Document readers and basic inspection tools may be used in higher risk environments.

b. Document Checks

Prior to passenger check-in or boarding, personnel shall:

1. Determine ticket acceptability and confirm destination and or transit with passenger including the return ticket, if applicable.
2. Verify the passenger's identity against the travel document presented e.g.,

i. Citizenship and date of birth for entry requirements
ii. Expiry status of the document
iii. Visual comparison of the photo to the passenger
iv. The name on the travel document matches the booked/ticketed name.

Note: Ensure every person holds a valid travel document.

3. Ensure, where applicable, the visa or residence permit required to enter the State of transit and/or receiving State.
4. Review visa and/or entry conditions/limitations.

Note: A number of airlines, for example, use Timatic services to help ensure that their passengers comply with the entry requirements of the transit and destination country.

5. Review health documents status for destination and/or transit requirements, if required.
6. Collect or verify advance passenger information (API) data, if required.
7. Ensure irregularities are detected such as:

i. Expired or invalid travel document or a visa for which the maximum number of entries set has been depleted
ii. Counterfeit, forged or altered
iii. Documents that belong to another person, or
iv. Passenger without such document

8. When an irregularity is identified, with the passenger document(s), the supervisor will be notified:

i. To contact the appropriate authority for assistance to further verify documents, if applicable, or
ii. Deny a passenger check-in at the point of departure or boarding at the transit point, to the intended final destination, when the document(s) presented by the passenger is determined to be insufficient or inappropriate, leading to an inadmissible person (see GOM 1.4.9.1).

9. Retrieve DCS record and review any special remarks.

Notes:

1. As per ICAO Annex 9, Contracting States have the obligation to assist in the evaluation/verification of travel documents presented by passengers, in order to deter fraud and abuse.
2. Some contracting States may have liaison officers at airports in order to assist airlines to establish the validity and authenticity of the travel documents at the different touch point of the passenger journey.
3. Consequently, airlines will seek mitigation of State penalties whenever fraud detection was not obvious nor evident.

1.1.5.3. ADVANCED PASSENGER INFORMATION

Many governments require airlines to submit API data. API is made up of two different information datasets related to the:

a. Flight
b. Identity of the passenger

The information related to the passenger are included in the Machine Readable Zone (MRZ) of the travel document (e.g., surname/given names, date of birth, nationality, travel document number, expiry date, etc.) at specified times for inbound and sometimes outbound passengers.

Information is generally collected at the time of check-in or provided by data collected during the booking process and verified during presentation of the travel document.

As per operating airline procedures, collect API data at the time of check-in or review and verify data already provided. Transmit API data as requested by authorities. Always protect the passenger's personal information and securely dispose of any related paperwork not kept on file.

1.1.6. BAGGAGE ACCEPTANCE

1.1.6.1. BAGGAGE ACCEPTANCE GENERAL

The following section presents baggage acceptance procedures. It should be noted that the handling of baggage may vary between airlines, and therefore, deviations from the processes described are possible. Always refer to and follow airline procedures, where applicable.

1.1.6.2. CABIN BAGGAGE

a. General

Each operator sets their standards for size, weight and number of pieces permitted as cabin baggage.

b. Cabin Baggage Types

Cabin baggage includes:

1. Baggage carried within the operator’s standard free carry-on baggage allowance.
2. Free carry-on items permitted by the operator in addition to the standard allowance (e.g., purse, laptop, duty free item(s), winter coat).

3. Special items permitted by the 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).
4. Items of dangerous goods permitted in cabin baggage, including those items that require prior approval by the operator (see IATA Dangerous Goods Regulations (DGR)).

c. Cabin Baggage Acceptance

Cabin baggage can only be accepted if it:

1. Is suitable for air carriage (i.e., conforms to the operator's procedures for weight, size and/or nature).
2. Can fit under the seat or be stowed in the overhead compartment.
3. Is suitably packed.
4. Conforms with airport security and safety procedures.
5. Conforms to the following restrictions:

i. Certain items, because of their weight, size and/or nature, are only accepted with the consent of the operator (e.g., musical instruments).
ii. For security reasons, many countries restrict the carriage of liquids, aerosols and gels in cabin baggage.
iii. Items refused by security screening shall be hold-checked as per operating airline procedures or refused from transport completely if not allowed in checked baggage.

d. Procedures at Check-In

1. Assess the size, weight and number of pieces of cabin baggage as per operating airline procedures:

i. Weigh/measure cabin bags if they appear to exceed the specified weight/size limit set by the operator (weighing of all cabin baggage may not be systematically required unless mandated by the operator).
ii. Refer the passenger to the baggage gauge, if available.
iii. Attach an "approved cabin baggage" tag, if applicable.

2. If the cabin baggage exceeds the free allowance size and/or weight, it shall be checked in with applicable charges if the free baggage allowance is exceeded.
3. Be aware of dangerous goods that are commonly carried but not permitted. Ask the passenger if they have any of these items by using the dangerous goods displays for visualization.
4. Items removed by security screening personnel may only be accepted in checked baggage, in accordance with operating airline handling and acceptance procedures.

e. Procedures at Boarding Gate

1. Check for items that are unacceptable, oversized, overweight or exceed the number of pieces as free cabin baggage. Use the cabin baggage gauge, if applicable.

2. Collect any cabin baggage that cannot be accommodated on board due to these reasons or due to limited storage space.

f. Accepting Cabin Baggage into the Hold

1. Check with the passenger that the baggage contents comply with the IATA DGR and operating airline procedures. Verify whether the passenger has removed any items specifically prohibited in hold baggage.
2. Advise the passenger to remove any personal documents or medications, valuables and sensitive or fragile objects.
3. Collect applicable charges as per operating airline procedures.
4. Tag gate-checked bags in line with the through check-in procedures using a limited release tag, in accordance with operating airline procedures.
5. Ensure the baggage tagged at the gate is considered for load control by adding the information in the DCS (number of pieces and weight) or use Delivery at Aircraft (DAA) labels and processes if applicable (see GOM 1.1.6.12(c)) depending on aircraft type.
6. Inform passengers to pick up their gate-checked bags at the baggage claim area, final destination or at the aircraft door (DAA), if applicable.
7. Inform ramp staff and/or load control of the gate baggage to be loaded.

1.1.6.3. CHECKED BAGGAGE

a. General

1. Checked baggage is:

i. Taken custody by the operator who issues, validates or updates a baggage tag.
ii. Carried in the hold of the aircraft on which the passenger is travelling but remains inaccessible to the passenger during the flight.

2. The operator may refuse to carry checked baggage that is likely:

i. To endanger the aircraft or persons/property on board the aircraft
ii. Inadequately packed
iii. Unsuitable for air carriage due to its weight, size and/or nature
iv. Forbidden by law, regulations, security standards or safety standards of any state to be flown from, to or over

3. Every piece of checked baggage shall have a baggage tag attached, showing the tag number, flight number, appropriate destination and the passenger's name.

4. Operating airline procedures may specify a maximum single item weight, if applicable.

Note: Certain items, because of their weight, size and/or nature, are only accepted with the consent of the operator. For example, musical instruments such as a cello.

b. Standard Baggage Acceptance

The Check-in Agent should only accept checked baggage that is appropriately packaged and has a passenger identification label.

1. Ensure dangerous goods notifications are on display and verify with the passenger that the checked baggage does not contain any forbidden dangerous goods.
2. Review weight and number of pieces information for recording in the DCS and for applying appropriate fees.
3. If applicable or required according to operating airline procedures, ask the passenger security-related questions.
4. Be aware of items that, due to their nature, may contain dangerous goods. Refer to the IATA DGR and operating airline procedures.
5. 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.
6. Attach an appropriate baggage tag for the journey.
7. Passengers who have used a self-service check-in facility may drop their checked baggage at a baggage drop-off. If applicable as per operating airline procedures:

i. Review the boarding pass and retrieve the passenger data in the check-in system.
ii. Verify identity and travel document, assess carry-on baggage, and accept checked baggage.
iii. Update baggage information and any SSRs in the DCS, if required, and apply any related fees.

c. Baggage Drop-Off and Self-Service Devices

Baggage self-service drop off is becoming more prevalent. Where baggage self-service devices are in use, observe the following:

1. Follow operating airline procedures or Service Level Agreements (SLA) for the number of staff undertaking assistance and supervision activities at each machine.
2. Proactively guide passengers to self-service options to manage waiting times.

1.1.6.4. DANGEROUS GOODS IN BAGGAGE

a. In principle, dangerous goods are forbidden to be carried by passengers and crew, except as otherwise provided in Table 2.3.A of the IATA DGR and in line with operating airline procedures.
Specific transport conditions are applicable to defined items that:

1. Require the approval of the operator prior to acceptance.
2. Are permitted in or as checked baggage.
3. Are permitted in or as cabin baggage.
4. Must be carried on one's person only.
5. The pilot-in-command shall be informed of the location of the mobility aid with installed batteries, removed batteries and spare batteries, to best deal with any emergencies that they may occur.

b. All persons tasked with passenger and baggage acceptance shall:

1. Be trained according to the requirements specified in the IATA DGR.
2. Verify with the passengers that they are not carrying forbidden dangerous goods during the check-in and baggage acceptance process.
3. Be aware of commonly carried items and question passengers when there is a suspicion of their carriage (e.g., camping equipment).
4. Handle and report any dangerous goods occurrences (e.g., forbidden dangerous good identified in checked baggage), in line with operating airline procedures.

1.1.6.5. BAGGAGE POOLING

As per IATA Resolution 746, when passengers' baggage is pooled, each passenger in a non-family group should be given their own individual baggage claim check/receipt.

Subject to operating airline procedures, baggage may be pooled between registered groups of passengers or passengers flying together, such as families. In this situation the baggage allowances for each passenger are combined to make a group total.

For example: a registered group of 10 passengers may each have an individual baggage allowance of 1 piece weighing up to 20 kg. Pooling the allowance would allow 10 pieces weighing 20 kg each for the entire group. Therefore, if one group member has 2 bags, and another has no checked baggage, the pooled allowance allows the second bag to be carried without penalty.

Note: Where applicable, the maximum single-item weight restriction shall be observed.

1.1.6.6. BULKY AND OVERSIZED BAGGAGE

a. General

Baggage is considered bulky or oversized as defined by operating airline procedures and/or its weight exceeds regulatory limits. These items are called out of gauge (OOG) items. For example, in general, baggage accepted at European airports may not exceed 32 kg in weight, although exceptions may exist (e.g., wheelchairs).

Passengers presenting such items shall be assisted by check-in agent to:

1. Complete the normal check-in process at the check-in counter.
2. Attach a baggage label to the OOG item.

Drop the item to the OOG baggage acceptance point, if available.

b. Maximum Single Item Weight

Each operator shall determine a maximum single item weight for checked baggage that considers any:

1. Local legislation and/or health and safety requirements
2. Other applicable limits for transfer baggage
3. Specific rules that may apply as per operating airline procedures for certain items (e.g., live animal in hold (AVIH), wheelchairs (WCH), musical instruments, media equipment, large sports equipment)

c. Maximum Single Item Dimension

Each operator shall determine maximum single-item dimensions for checked baggage that considers any:

1. Local legislation and/or health and safety requirements
2. Other applicable limits for transfer baggage
3. Specific rules that may apply as per operating airline procedures for certain items (e.g., live animal in hold (AVIH), wheelchairs (WCH), musical instruments, media equipment, large sporting equipment)

1.1.6.7. CHECKED BAGGAGE ALLOWANCE

Passengers are entitled to a predetermined free checked baggage allowance that can vary based on the fare paid, passenger category, routing, group status or class.

Note: Some fares do not include any free checked baggage allowance.

There are two standard free checked baggage allowance concepts:

a. Weight Concept: measured by the total weight of checked baggage, which is shown as a weight amount on the ticket (e.g., 20 kg or 45 lb.).
b. Piece Concept: measured by the number of pieces of checked baggage (shown as PC on the ticket).

Note: Some operators' procedures may combine both concepts, such as 2 pieces weighing not more than 32 kg in total or per piece.

1.1.6.8. EXCESS BAGGAGE

When the free checked baggage allowance is exceeded, chargeable excess baggage handling fees apply as per operating airline procedures and applicable baggage rules. Excess baggage fees (per kilogram/piece or for special items) may be prepaid or collected at check-in, at a sales desk or at the boarding gate.

1.1.6.9. EXCESS BAGGAGE

a. Remove all old baggage tags, handling labels if not applicable and baggage reconciliation tags (mini or stub).
b. Attach the appropriate baggage tag for the journey.
c. Place baggage tags in an easily readable location and where they will not be easily torn off or damaged.
d. Follow tag instructions and do not stick glue directly onto passenger baggage.
e. Use limited release tags as per operating airline procedures.
f. As per operating airline procedures, if they are not printed on the baggage tag, supplementary tags (applicable handling tags) may be attached to baggage items, such as:

1. Priority Tag–to identify priority baggage to be unloaded first and segregated as per operating airline procedures.
2. Short Connection Tag-for transfer baggage with minimum time between scheduled arrival and departure.

3. Limited Release Tag–used on fragile or unsuitably packaged items.
4. Fragile Sticker–for items that require extra care in handling.
5. Heavy Tag–placed on items that exceed regular handling limits (this varies according to local legislation).
6. Security Tag (e.g., weapons).

Note: See Table 1.1.6.9 for Transfer Baggage–Special Cases

Case	Through-Tagging	Remark
Customs clearance required at the transfer point	YES	Advise passenger to pick up baggage at the transfer point. Refer to the Travel Information Manual https://www.iata.org/en/services/compliance/timatic/for country rules.
Passengers specifically want their baggage at a transfer point	NO	Inform the passenger about the risk of missing the connecting flight.
Live animals in hold	YES	Only permitted if the continuing carrier has confirmed acceptance. Within the permissible minimum connecting time (MCT).

Table 1.1.6.9—Special cases for transfer baggage

1.1.6.10. TYPES OF BAGGAGE TAGS

a. Manual Baggage Tag

In the case of a manual baggage tag as per IATA Resolution 740:

1. Complete any hand-written portions of the manual tag, writing legibly in permanent, waterproof ink.
2. When needed due to the number of transfer legs:

I. Prepare a second tag by striking out the baggage identification number.
II. Remove the barcode section.
III. Attach the transfer part of the tag below the transfer line on the initial tag.
IV. Mark the second tag as a conjunction tag.

3. Record the baggage identification number in the operating carrier's DCS, if possible.
4. Inform the Ramp Agent when checked cabin baggage is accepted at the gate.

b. Electronic Baggage Tag

Some operators have implemented the electronic baggage tag (EBT) in line with IATA Recommended Practice 1754. EBTs have a display that shows the baggage journey and are normally set to display the current journey during the passenger self-check-in process. While the display on these tags does not use power to be shown, a battery is normally used to allow the display to be updated. In general, these batteries are of the AA type and can be left in the baggage. The IATA DGR has details for dealing with lithium ion batteries.

1. Check the quality of the display, as the barcodes must be readable.
2. Check the baggage information displayed matches the passenger itinerary, including the baggage license plate number shown for the baggage item.

I. If the details are incorrect, ask the passenger to blank their baggage tag.
II. After the tag is blanked, generate and attach a normal baggage tag and any other identifying labels (see GOM 1.1.6.9).
III. Ensure the baggage tag number(s) are active, in the check-in system as per operating airline procedures.

c. Home-Printed Baggage Tag

Where allowed by operating airline procedures and local regulations, passengers may have printed their own baggage details remotely. Home printed baggage tags (HPBT), show the baggage journey as a normal baggage label does and are folded to fit into a plastic holder and attached within the baggage:

1. Check the baggage information is clearly displayed. If the baggage label is illegible for any reason (e.g., poor printing, incorrect folding, not matching the itinerary data), destroy the HPBT and cancel the HPBT number in the DCS then, generate and attach a normal baggage tag and any other identifying labels (see GOM 1.1.6.9).
2. Check the baggage information displayed matches the passenger itinerary, including the baggage license plate number shown for the bag. If the details are incorrect, destroy the HPBT and cancel the HPBT number in the DCS then, generate and attach a normal baggage tag and any other identifying labels (see GOM 1.1.6.9).
3. Ensure the baggage tag number(s) are active in the check-in system as per operating airline procedures.

d. Fallback Baggage Tags

If in use, fallback baggage tags are issued when the BHS at the airport is not able to process baggage messages and, therefore cannot work with demand baggage tags. These baggage tags are specific to the airport and have an airline code and 2-digit pier/chute/lateral indicator.

When using fallback tags:

1. Generate a normal on-demand baggage tag or manual tag and affix to the baggage.
2. Ensure the appropriate airline identifier code is shown on the tag.
3. Ensure the appropriate pier/chute/lateral information is shown for the designated flight build.

4. Firmly attach the fallback tag to the baggage.
5. Ensure the persons responsible for building and loading baggage, are aware that the fallback tags are in use.

1.1.6.11. CHECKED BAGGAGE DESTINATION

Follow operating airline procedures and through-label baggage to one of the following points, whichever occurs first:

a. The first stopover point of the passenger.
b. The point to which transportation has been confirmed (OK in ticket), requested (RQ in ticket) or listed (SA in ticket).
c. The point where a change of airport is involved.
d. The final destination as specified on the ticket, including any tickets issued in conjunction with this ticket.
e. In addition, observe the following:

1. The MCT is respected.
2. Unless subject to specific agreement between airlines, through check-in baggage on separate tickets is prohibited.
3. If allowed by operating airline procedures, baggage may be labeled to a transfer destination on the ticket.
4. Specific rules of the operating airline may apply for AVIH.

1.1.6.12. SPECIAL BAGGAGE

a. Cabin Seat Baggage

1. Cabin seat baggage (CBBG) is baggage not usually suitable for loading in the aircraft hold and, thus, requested for transport on an extra seat. Such baggage may include:

I. Musical instruments
II. Works of art
III. Electronic equipment
IV. Diplomatic baggage
V. Valuable baggage

2. Loading and Lashing Cabin Seat Baggage
Operating airline procedures shall dictate the acceptance of CBBG. If not accepted, it can travel as hold-checked baggage providing packaging is appropriate.

b. Crew Baggage

Crew baggage may be presented at check-in or airside and should be clearly identified with a crew label as well as all flight details. Handling rules are as per operating airline procedures.

c. Delivery At Aircraft

1. As per operating airline procedures, the Delivery At Aircraft (DAA) procedure may be applied for:

I. Fully collapsible baby strollers and pushchairs (larger baby carriages/prams shall be checked in).
II. Wheelchairs and other mobility aids that are not needed during the flight and cannot be stored in the cabin.
III. Regular cabin baggage on small aircraft with limited stowage space in the cabin.

Notes:

1. DAA procedure shall not be used for valuable items (e.g., laptop computers, large video cameras, important documents) as such items should remain with the passenger.
2. Observe local restrictions for DAA delivery at arrival stations and inform passengers accordingly.
3. Verify with the passenger that any dangerous goods items, which are only permitted in cabin baggage, are removed before DAA acceptance.

2. Procedure at Boarding Gate

I. Inform the person responsible for the loading and supervision task to ensure the loading of DAA and WCH are noted on the Load Message (LDM) under SI–Remark.
II. If applicable, inform the flight crew of the number of DAA baggage items.
III. Inform the passenger to leave or hand-over the DAA-item in the designated area.

d. Sporting Equipment

Generally, sporting equipment will be presented as separate pieces of checked baggage. Accept sporting equipment as per operating airline procedures.

1. Apply procedures for special handling charges, if required.
2. Load as per operator instructions.

e. Wheelchairs and other Mobility Aids

Wheelchairs and other mobility aids are crucial to the passengers who use them. They are most often custom-designed and tailored to promote safety, comfort and independence for the user and shall be treated with care. Mobility aids such as wheelchairs, rolling walkers, Segway-style mobility wheelchairs or Swiss Tracs may be operated with manual or electric power and have to be handled according to instructions provided by the passenger and according to the IATA DGR. There are specific rules and concerns when handling such aids, especially when they have batteries that also need special handling.

Passengers using a wheelchair (manual or powered) or other mobility aid should always be given the following options:

1. Where possible, retain their personal mobility aid throughout the airport,
2. Check it in and be provided with an airport/airline wheelchair to autonomously reach the gate, where applicable,

3. Check it in and be accepted by a dedicated agent with an airport/airline wheelchair or electric cart to reach the gate,
4. If the passenger mobility aid:

I. Is not checked-in, its usage should be permitted up to the aircraft door and the mobility aid stored in the cabin where facilities are available. Such requests will be handled on a first come first served basis (ref. IATA RS 700 5.2.3.1 (b)) and will depend on the size of the aircraft and local regulations. Although requested by the passenger, where the wheelchair or mobility aid cannot be stored on board, it shall be loaded in the aircraft hold where it is easily accessible for timely return to the passenger at the aircraft door.
II. Is preferred to be or (must be) checked-in, an identification tag will be attached to it. The tag alerts the baggage handling staff on the handling process or the need to deliver the mobility aid to the aircraft door or at the baggage claim (refer to GOM 1.1.6.12(c)).
III. When not provided at the time of booking, details of size, weight and battery type shall be validated at check-in to ensure the mobility aid is accepted and loaded on the aircraft in accordance with the IATA DGR.

Note: In addition to any operating airline procedure, refer to the current IATA DGR

f. Acceptance of Pets in Cabin and Live Animals in Hold

Handling of animals is required in accordance with operating airline procedures and Live Animals Regulations (LAR). The acceptance of pets is also subject to the respective country regulations.

There are two methods of carriage:

1. Pets in Cabin (PETC)

Subject to operating airline procedures, defined animal species like cats and dogs may be accepted as PETC either securely leashed or in an approved container for carriage in the passenger cabin.

2. Live Animals in Hold (AVIH)

I. AVIH, may be transported as checked baggage in the aircraft hold in accordance with IATA LAR and operating airline procedures. Ensure the flight crew is informed of AVIH loading to ensure sufficient heat and airflow are maintained.
II. Domestic animals such as dogs, cats and if applicable, other animal species defined by the operating airline may be carried as AVIH.

Note: Domestic animals of unusual size or wild animals, reptiles and rodents must be transported as cargo.

g. Service Animals

Subject to operating airline procedures and local regulations, it may be possible to accept defined animal species as task-trained service animals (SVAN) and emotional support animals (ESAN) in the passenger cabin. Refer to operating airline procedures for guidance.

Task-trained service animals (SVAN) are animals trained to perform specific tasks for people who have physical, sensory, psychiatric, intellectual, or mental disabilities. The most common type of service animal is a dog.

Emotional support animals (ESAN) are usually untrained and mainly provide support, well-being and comfort to their owners through companionship, non-judgmental positive regard and affection.

Note: Emotional support animals are not globally recognized as a service animal

1.1.6.13. CARRIAGE OF FIREARMS

Note: Firearms are among the articles prohibited for carriage in the aircraft cabin. The only exemption is for persons specifically authorized to carry a firearm in the cabin (e.g., air marshal).

a. Carriage of Firearms On-Board

Airline procedures are in place to ensure the PIC is notified prior to the commencement of a commercial flight of person(s) authorized to carry a firearm on the flight in the passenger cabin. The notification shall include the seat number(s) of authorized armed person(s) when allowed by local regulations.

b. Carriage of Firearms in the Aircraft Hold

When a firearm and/or ammunition are carried in the aircraft hold, the procedures shall ensure the:

I. Firearm is not loaded (there is no ammunition in the chamber or magazine) and ammunition is carried separately from the firearm.
II. Firearm and ammunition are stowed in a place that is inaccessible to any unauthorized person during the flight. Firearms are not to be carried in the flight deck or retained by any crew member.
III. Carriage of firearms is permitted by all states involved (including the state of departure, transit and arrival).
IV. PIC is notified prior to the commencement of the flight.

Note: In the event a weapon or any item suspected to be an unauthorized weapon is discovered, follow operating airline procedures and local security regulations.

1.1.7. PASSENGER BOARDING

1.1.7.1. PREPERATION FOR BOARDING

Before boarding, ensure passengers and their cabin baggage have undergone security checks, if applicable.

a. Start and test gate equipment or if required prepare manual boarding documentation in accordance with operating airline procedures.
b. Check boarding facilities and gate monitors are displaying the correct flight information.

c. Prepare the gate room for boarding (e.g., place stanchions, carpets, baggage sizers, podiums), as per operating airline procedures.
d. Ensure dangerous goods and prohibited articles notices are displayed at the boarding gate (For further guidance refer to current IATA DGR).
e. Prepare required handling material (e.g., boarding passes, baggage tags) as per operating airline procedures.
f. Review the flight and check the following:

1. Number of booked and accepted passengers, including waitlist
2. Passengers requiring special attention or pre-boarding
3. Passengers who are not authorized to board and, if any, related action required (e.g., feeding API-data, selectee handling)
4. In the case of an overbooked flight, assess the number of volunteers required and/or expected number of involuntarily denied boarding passengers
5. Inbound connections and arrival time
6. If applicable, meal counts in relation to the number of passengers

g. If applicable, prepare for priority boarding (e.g., set up signage and barriers).
h. Prepare boarding announcements as required by the operating airline procedures.
i. Ensure the boarding route to the aircraft is safe and clearly marked, where possible.
j. If passengers and staff need to walk on the ramp, ensure the route to the aircraft is safe and clearly marked. Passengers must be supervised on the ramp at all times.
k. For boarding with a Passenger Boarding Bridge (PBB), secure the route to the aircraft and block off any unused passageways, if required. Identify passageways (e.g., by class) as per operating airline requirements when there is more than one passageway in use.
l. Obtain clearance for boarding from the flight crew, according to local and operating airline procedures.

1.1.7.2. PASSENGER BOARDING PROCESS

Passengers can be boarded by personnel in charge of the boarding process using a boarding application or manually, or passengers can use self-service devices for boarding, if available.

The following must be observed for the boarding process:

a. Apply the boarding sequence as requested by the operating carrier (e.g., pre-boarding and priority boarding).
b. Make boarding announcements as per operating airline procedures.
c. Follow operating airline procedures for passengers requiring assistance or pre-boarding.
d. Verify each passenger's identity as per the operating airline procedure.
e. Cross-check the name on the passenger identity document with the one on the boarding token/card, and visually match the passenger with the photograph, if applicable.
f. Register each passenger boarding and make a notification in the DCS.
g. Apply the cabin baggage procedures of the operating airline, and account for any gate-tagged items:

1. Collect any flight related paper revenue documents, if required.
2. Clarify any boarding discrepancies See GOM 1.1.7.3.

h. Follow safety precautions when aircraft fueling is in progress See GOM 3.2.3 or as per the operating airline procedures and state or local regulations.
i. For manual or non-automated boarding, check the flight number and date on the boarding card/token and register the security number as per operating airline procedures.
j. If a passenger is not eligible to board, deny boarding and enter passenger records to resolve the passenger boarding issue.
k. Enforce cabin baggage procedures:

1. Extra cabin baggage collected at the gate from passengers shall be tagged and the pieces/weight tag number(s), if applicable, "entered" in the DCS. Collect bags at the gate as per local procedures. Charge excess baggage if feasible. Inform load control of the additional pieces/weight if not transmited via DCS.
2. Advise ramp staff and/or load control of any gate tagged items to be loaded as per operating airline procedures.

For DAA, procedure see GOM 1.1.6.12(c).

Note: For cabin baggage acceptance at the boarding gate see GOM 1.1.6.2(e).

1.1.7.3. PASSENGER BOARDING DISCREPANCIES

If there are passenger discrepancies (minus or plus), they must be resolved prior to closing the aircraft door.

a. Make every attempt to locate missing passengers and obtain visual proof of boarding. Verify documents if the missing passengers are found to be already on board the aircraft.
b. Apply operating airline procedures and local regulations with respect to the removal of the checked baggage of passengers who checked in but failed to board.
c. When more passengers are on board than shown in the boarding count, the boarding passes and identities of the passengers must be verified and the acceptance corrected and reconciled accordingly.
d. Notify the crew and load control of any last-minute changes to the passenger and/or baggage load.

1.1.7.4. END OF BOARDING

Before flight closure, ensure all accepted passengers have boarded the aircraft.

Based on the operating airline's procedures:

a. Secure the flight by matching the checked-in passengers to the boarded passengers. Finish the boarding process and close the flight in the DCS, if required.
b. Add any additional cabin baggage tag number(s) in the DCS collected at the gate as per operating airline procedures and the system used (manually or automated).
c. Provide final passenger numbers to cabin and/or flight crew.
d. Provide required flight documents to cabin and/or flight crew.
e. Ensure load control is informed about final passenger and/or baggage information, as per operating airline procedures.

1.1.7.5. BOARDING IN THE CASE OF DCS BREAKDOWN

Where no DCS is available or in the case of DCS failure, apply manual boarding as per operating airline procedures.

Ensure the final checked-in count matches the boarded passenger count prior to door closure. Then prepare and present a final manifest.

1.1.8. INFORMATION TO CREW

1.1.8.1. INFORMATION TO CREW - GENERAL

Provide the flight crew with the required documents according to operating airline procedures.

1.1.8.2. PASSENGER INFORMATION LIST

The Passenger Information List (PIL) provides information to the cabin crew about passengers on board (e.g., name, seat number, SSRs).

Provide a PIL to the cabin crew member before departure or as per operating airline procedures.

1.1.8.3. OTHER FLIGHT DOCUMENTS

Other required flight documents may include:

a. Final passenger manifest
b. Baggage tag list for double-destination flights
c. General declarations, if required
d. Other special information (i.e., inadmissible (INAD) passenger documents).

1.1.9. POST-FLIGHT DEPARTURE ACTIVITIES

1.1.9.1. MESSAGES

Ensure all relevant messages are dispatched to the appropriate addresses, as per operating airline procedures.

Messages may include:

a. Teletype Passenger Manifest (TPM)
b. Passenger Transfer Message (PTM)
c. Passenger Service Message (PSM)
d. Passenger Protection Message (PPM)
e. Seat Occupied Message (SOM)
f. Industry Discount Message (IDM)
g. Advanced Passenger Information (API)
h. Electronic Ticket List (ETL)

1.1.9.2. FLIGHT DOCUMENT RETENTION

Retain (electronically or in paper files) flight documents as per operating airline procedures and for a period of no less than three months, unless otherwise specified.

1.1.9.3. FLIGHT CLOSE OUT

The accounting of all revenue documents for the respective flight and related services has to be ensured. Electronic documents are transmitted automatically by appropriate flight closing activities in the check-in system as per operating airline procedures.

Paper revenue documents (e.g., flight interruption manifests (FIMs), excess baggage coupons) must be collected and forwarded to the respective Revenue Accounting department as per operating airline procedures.

1.2. PASSENGER SECURITY

1.2.1. SECURITY OF DOCUMENTS

1.2.1.1. BOARDING PASSES, TRANSIT PASSES AND BAGGAGE TAGS

To enforce the security and safe disposal of boarding passes, transit cards, baggage tags and other passenger information, all materials must be always kept under surveillance and removed from counters to prevent unauthorized access and use.

1.2.1.2. PRINTED DOCUMENTS

Printed material such as boarding passes, passenger lists and handling forms may have to be reprinted. Disposal of the original documents containing passenger data should be in accordance with data protection rules.

Unauthorized persons shall not be given access to printed documents containing passenger data or their contents.

1.2.1.3. COUNTER AND AREA SECURITY

a. All systems, including the DCS, passenger facing counters etc. must be controlled to prevent unauthorized access. Follow airport procedures to prevent unauthorized access to and use of un-issued (blank) boarding passes.
b. Before leaving the counter, remove boarding passes and baggage tags from the printers or lock them.
c. Before leaving the counter, sign out/log off and lock the system.
d. Adhere to regulations concerning the usage of sign-ins and passwords.

1.2.2. PASSENGER SUITABILITY FOR TRAVEL

Assess each passenger in terms of security risk by looking for anomalies and observing certain emotional characteristics and/or body language. Be on the lookout for overall fitness to fly, including potentially communicable diseases, medical conditions, intoxication, etc.

Further questioning of the passenger may be required to assist with assessment:

When a potential problem is identified:

a. Suspend the process for the identified passenger (check-in and/or boarding).
b. Notify the supervisor or airline representative to obtain their agreement on further action(s). This should be done in accordance with operating airline procedures.

c. Depending on the situation, the airline representative will contact the appropriate local authority for assistance, if needed.

1.2.3. SECURITY OF PASSENGERS AND THEIR BAGGAGE

It is the responsibility of supervision staff to ensure all security threats are immediately reported to the operating airline, flight crew and applicable authorities as per local requirements and operating airline procedures.

Apply operating airline and/or regulatory/airport authority security procedures for the handling of passengers and their baggage in the event of:

a. A bomb threat condition
b. An increased security threat condition

1.2.4. RESTRICTED AREAS

Secure all gate and departure areas by keeping doors closed. Use appropriate barricades when directing passengers.

a. Ensure all access doors are closed when not in use.
b. Position staff as required to direct passengers.
c. If passengers must walk on the apron to the aircraft, ensure passengers proceed directly to the aircraft.
d. If transportation must be provided to passengers to move them from the terminal building to the aircraft, make sure only authorized personnel and screened passengers are allowed to board the vehicle.

1.3. PASSENGER ARRIVAL, TRANSFER AND TRANSIT

1.3.1. PRE-ARRIVAL

Review the pre-arrival information from the DCS and/or messages.

a. Prepare for short connections, if applicable.
b. Arrange facilitation for passengers requiring assistance, as identified by the applicable SSR and/or operating airline procedures. Check requirements for any gate delivered mobility aids.
c. In the case of delay of arrival, check onward connections and make new reservations, if required and as per operating airline procedures.

1.3.2. ARRIVAL

a. Prepare PBB, ensuring it is free of debris and positioned as per the standard requirements (see GOM 3.1.3.5).
b. Secure the disembarkation route for passengers and observe passengers' safety throughout the entire disembarkation process. If passengers are required to walk across the ramp, they shall be supervised.

Notes:

1. If passenger handling staff are trained and authorized to operate the PBB (see GOM 3.1.3.5).
2. If passenger handling staff are trained and authorized to operate cabin access doors (see GOM 4.4.2).

c. Disembark passengers in accordance with operating airline procedures.
d. Provide assistance to passengers requiring it, even if not previously identified.

1.3.3. TRANSFER

For passenger handling at the connecting airport, if applicable, and as per operating airline procedures:

a. Check the inbound/outbound connections and number of passengers affected.
b. Check time-critical connections and inform gate staff of onward transfers.
c. Prepare for handling of passengers requiring assistance.
d. Assist the transferring passengers upon arrival of the incoming aircraft.
e. Direct:

1. Through-checked passengers to the appropriate departure gate(s).
2. Non-through-checked passengers to the transfer desk or gate for check-in, whichever is applicable.

1.3.4. TRANSIT

1.3.4.1. TRANSIT – GENERAL

Transit passengers may be allowed to disembark when scheduled ground time and local circumstances and facilities permit, in accordance with operating airline procedures.

Local airport requirements shall be applied regarding security of transit passengers, including screening requirements.

1.3.4.2. DISEMBARKATION PROCEDURES

a. Provide each passenger with a transit boarding pass or instruct passengers to retain their original boarding pass.
b. Inform passengers of boarding time and gate as well as available facilities.

1.3.4.3. TRANSIT PASSENGERS REMAIN ON BOARD

As per operating airline procedures, there may be categories of passengers who stay on board the aircraft, if locally permitted.

In this situation check the number of passengers with the cabin crew on board to ensure a correct boarding count when re-boarding the flight (see 1.3.4.4).

Provide assistance to passengers who remain on board during the transit time.

1.3.4.4. BOARDING PROCEDURE

a. Board transit passengers before local passengers.
b. Re-secure the flight by checking travel documents and validating boarding status through collection of transit cards or review of original boarding cards. Validation may also be done using the flight manifest or DCS.

1.3.4.5. MISSING TRANSIT PASSENGER

The flight must be re-secured before door closure. If passengers are missing, apply the procedure for passenger boarding discrepancies (see GOM 1.1.7.3).

1.3.4.6. AIRCRAFT CHANGE AT THE TRANSIT STATION

a. Advise cabin crew that all transit passengers must disembark with their carry-on baggage.
b. Distribute transit boarding passes or instruct passengers to retain their original boarding pass.
c. Inform passengers of the boarding time and gate as well as available facilities.
d. Provide passenger assistance as required.
e. In the case of a change of aircraft type/configuration, assign passengers new seat numbers, if applicable, or apply free/open seating as per operating airlines procedures.

1.4. SPECIAL CATEGORIES OF PASSENGERS

1.4.1. UNACCOMPANIED MINORS

1.4.1.1. UNACCOMPANIED MINORS – GENERAL

The procedure for unaccompanied minors (UM) is applicable to the handling of children or youth travelling alone as defined by operating airline procedures.

1.4.1.2. SEATING

Seat UM as per operating airline procedures and do not assign seats in emergency exit rows.

1.4.1.3. ACCEPTANCE RESTRICTIONS

Observe travel restrictions for UM as per operating airline procedures for:

a. Connecting flights.
b. The maximum number of UM allowed on a flight.

1.4.1.4. PROCEDURES FOR HANDLING UNACCOMPANIED MINORS

a. Complete the handling advice/declaration form ensuring the responsible adult has signed the authorization and provided proof of identity.
b. Distribute and keep copies, as required.
c. Ensure the correct remarks and SSR codes are in the check-in record.
d. Apply a handling fee, where applicable.
e. Inform the responsible adult to remain at the airport until the aircraft is airborne.
f. Keep the UM in safe custody and hand over to the cabin crew during boarding.
g. Advise/release the responsible adult once the flight is airborne.

1.4.1.5. TRANSFER STATION PROCEDURES

a. Meet and assist (MAAS) the UM and collect any travel documents from the cabin crew.
b. Hand over the UM to the cabin crew of the connecting flight.
c. In the case of an interline transfer, hand over the UM to the onward connecting Airline Agent.
d. In case of a flight disruption at the transfer station, the UM is to be accompanied at all times.

1.4.1.6. ARRIVAL STATION PROCEDURES

a. Meet and assist (MAAS) the UM and collect any travel documents from the cabin crew.
b. Complete the handling advice/declaration form for airline staff responsible.
c. Where applicable, ensure baggage of UM is collected.
d. Hand over the UM only to the designated adult noted on the handling advice after verifying the identity of this person and having received a signature for receipt of the UM.

1.4.2. INFANTS AND CHILDREN

1.4.2.1. INFANTS

a. General Restrictions:
Infants are minors who have not yet reached their second birthday.
Restrictions may exist regarding the number of infants permitted per adult passenger or the minimum age required to be responsible for an infant. Apply operating airline procedures.

Note: The maximum number of infants allowed per aircraft is limited by the number of supplemental oxygen masks available on the aircraft.

b. Seating
Passengers travelling with infants should be assigned to seats next to areas/zones capable of fitting bassinets (e.g., bulkhead seating area), as per aircraft type and operating airline procedures.
Infants travelling with car-type baby seats or similar child restraint device require an individual seat suitable for the device.
Infants shall be considered children and be assigned a seat when, during the journey, they reach the age of two.

c. Aircraft Baby Bassinets
If the aircraft is equipped with baby bassinets (BSCT), apply operating airline procedures for assignment, respecting any age and weight limitations.

d. Baby Strollers
Apply operating airline procedures regarding checked-in or DAA service for strollers and provide information to passengers concerning the procedure, if applicable.

1.4.2.2. CHILDREN

Children are minors between the age of two and twelve years (has reached their 2nd birthday but has not reached their 12th birthday).

If minors reach their 2nd birthday during the journey, they will be considered children as of the birthday.

Restrictions may exist regarding the minimum age of the accompanying adult passenger. Apply operating airline procedures.

a. Seating
   Children shall occupy an individual passenger seat and may not be seated in emergency exit rows.

b. Child Restraint Device
   Apply operating airline procedures for the acceptance and use of car seats and other child restraint devices. Verify their conformity as per the airline's specifications.

1. Make sure the child restraint device is placed on a seat that will not hinder the evacuation of any passenger.
2. Do not assign a seat for the child restraint device in an emergency exit row or the row forward or behind an emergency exit row.
3. Respect any limitations specified by the operating airline, as not all seats may be suitable.

1.4.3. GROUPS

1.4.3.1. GROUPS – GENERAL

The minimum number of passengers travelling together in a group (not including infants) is defined by the operating airline.

1.4.3.2. CHECK-IN

a. Check in and accept all passengers individually.
b. When possible, assign seats together; if requested, respect any special seating requirements.
c. Issue baggage tags individually:

1. Each piece of baggage must bear the respective passenger's identification.
2. Exception: baggage tags for family members travelling together may be issued in one family name.

1.4.3.3. NON-STANDARD GROUPS

Unusual groups, passengers of size, or groups outside the standard set as a minimum by the airline may need to be communicated to load control (i.e., sports teams with higher passenger weights).

1.4.4. PASSENGER WITH DISABILTIES

1.4.4.1. PASSENGER WITH DISABILITIES – GENERAL

As of IGOM Ed. 11 (effective 2022), the term Passenger with Reduced Mobility (PRM) has been aligned with the UN Convention on the Rights of Persons with Disabilities (CRPD) and International Civil Aviation Organization (ICAO) Annex 9 Chapter 8H, using the term Person/Passenger with disabilities (PWD) as the official terminology. Passengers with Disabilities (PWD) includes passengers with reduced mobility and passengers with non-visible disabilities which can be temporary or permanent conditions.

a. The ability to provide assistance to PWDs will vary according to:

1. Individual's needs
2. Aircraft type
3. Aircraft configuration

b. For PWDs requiring/requesting assistance:

1. Ask the passenger what assistance they require and how they can be helped.
2. Assign a seat in their ticketed cabin which accommodates the passengers' needs, in consultation with the passengers, and ensure that they are not allocated or occupy seats where their presence could impede the emergency evacuation. If the PWD is travelling with a personal care attendant and/or safety assistant, they shall be given seats immediately adjacent to or across the aisle from the passenger they are assisting (see GOM 1.4.4.3).
3. Advise the passenger of what services and assistance are available based on their needs.
4. Advise the passenger of available operating airline equipment (i.e., on board wheelchairs, braille or tactile markings, accessible lavatories, etc.).
5. Provide information to the passenger in alternate accessible communication formats upon request (e.g., braille, captioning, large print).
6. Ensure accurate SSR codes and any other relevant information are recorded in the DCS and PNR.
7. Acceptance of PWDs will be as per operating airline procedures.
8. PWDs should be allowed to pre-board.
9. Whenever feasible, PWDs using a wheelchair (manual or powered) or other mobility aid, should be permitted to use their personal mobility aid throughout the airport until they reach the aircraft and receive it back near the aircraft upon arrival. When in transit, if time permits between flights, the airline should offer to return to PWDs their personal mobility aid and allow PWDs to retain them until they need to be stored again for carriage. Inform the stations of transfer/arrival accordingly to allow the handling of the aid.

1.4.4.2. ASSISTANCE CODES FOR PASSENGERS WITH DISABILITIES

PWDs may require services and assistance to facilitate their travel experience. SSR codes are used to communicate passenger preferences, procedural items, medical cases and assistance required by passengers. These are identified in airline messages by IATA Reservations Interline Procedures (AIRIMP) codes.

a. Codes to identify a type of disability:

1. BLND (Blind Passenger)–specify if accompanied by service animal.
2. DEAF (Deaf Passenger)–specify if accompanied by service animal.
3. DPNA (Disabled Passenger Needing Assistance)—passenger with cognitive or invisible disabilities needing assistance (specify details)

b. Codes to identify assistive services provided to the passenger:

1. MAAS—Meet and Assist (specify details)
2. WCHR (Wheelchair—R for Ramp)—passenger can ascend/descend steps and make own way to/from cabin seat but requires wheelchair for distance to/from aircraft, i.e., across ramp, finger dock or to mobile lounge as applicable. When service animal is accompanying passenger, specify the type of animal in free text of SSR Item
3. WCHS (Wheelchair—S for Steps)—passenger cannot ascend/descend steps but is able to make own way to/from cabin seat; requires wheelchair for distance to/from aircraft or mobile lounge and must be carried up/down steps. When service animal is accompanying passenger, specify the type of animal in free text of SSR Item
4. WCHC (Wheelchair—C for Cabin Seat)—passenger completely immobile; requires wheelchair to/from aircraft/mobile lounge and must be carried up/down steps and to/from cabin seat. When service animal is accompanying passenger, specify the type of animal in free text of SSR Item

Notes:

Specify if the passenger is travelling with own wheelchair and use one the following applicable SSR codes which describe the wheelchair.

1. WCBD–Dry or Gel battery operated wheelchair/mobility aid (non-spillable/dry cell battery)
2. WCMP–Manual power wheelchair/mobility aid
3. WCLB–Lithium battery operated wheelchair/mobility aid
4. WCBW–Wet cell battery wheelchair/mobility aid)

If the passenger is requesting a wheelchair on board use SSR code WCOB.

c. Codes to identify animals accompanying a passenger with disabilities:

1. When service animal is accompanying passenger, specify the type of animal in free text of SSR Item
2. ESAN—for passengers travelling with an emotional support/psychiatric assistance animal in cabin (specify details)–(by bilateral agreement). Subject to government regulations
3. SVAN—for passengers travelling with a service animal in cabin (specify details)–(by bilateral agreement)

d. Codes to identify equipment accompanying the passenger:

1. OXYG (Oxygen)—for passengers travelling either seated or on a stretcher, needing oxygen during the flight (only to be used in conjunction with SSR Code MEDA)
2. STCR (Stretcher Passenger)

3. AOXY (Airline Supplied Oxygen)—for passengers travelling either seated or on a stretcher, needing oxygen during the flight (only to be used in conjunction with SSR code MEDA) (by bilateral agreement)
4. POXY (Passenger Own Oxygen)—for passengers travelling either seated or on a stretcher, needing oxygen during the flight (only to be used in conjunction with SSR code MEDA). Subject to airline and/or government regulations (by bilateral agreement)
5. PPOC (Personal Portable Oxygen Concentrator)—(by bilateral agreement)
6. WCOB (Wheelchair—O for Onboard)—provided by airline (by bilateral agreement) 48 hours' notice recommended but not require

Note: For medical cases (MEDA). Refer to GOM 1.4.5 for specific handling details related to MEDA passengers.

1.4.4.3. SEAT ASSIGNMENT

a. PWDs, as well as their personal care attendant and/or safety assistant shall be assigned seats in their ticketed cabin that will facilitate boarding and disembarkation and will minimize inconvenience to the passenger and maximize the scope for cabin crew assistance.
b. As a rule, ensure that PWDs are not allocated or occupy, seats where their presence could:
1. Impede the emergency evacuation of the aircraft.
2. Impede crews in the performance of their duties.
3. Obstruct access to emergency equipment.

c. Personal care attendants and/or safety assistants shall be given seats immediately adjacent to the passenger they are attending to.
d. The assignment of seats may also be subject to medical requirements.
e. When assigning seats, observe the following criteria:
1. PWDs travelling with service dogs should be assigned seats that allow space for the dog, near a floor level exit but not impeding access to it.
2. PWDs should, be seated so as not to impede rapid evacuation of the aircraft.
3. If crutches, canes or similar walking aids are stored in a special location in the cabin, the users of such aids should be assigned seats nearby, to permit quick access to the aids when needed.
4. Passengers with stiff legs, fractured legs in casts, paraplegics, etc. should be accommodated in seats allowing the maximum space for their comfort, or space for leg support devices with the least possible disturbance to passengers in the adjacent seats. Arms in casts should not obstruct the aisle or emergency exits.
5. Passengers with a disability affecting only one side of their body (i.e., hemiplegics, artificial limb, arm or leg in cast, splint or brace) should be assigned seats which will best accommodate the passenger and will facilitate their mobility in cases of emergency (e.g., in an aisle seat with the unaffected side of their body towards the aisle or in seats with removeable arm rests).

Notes:

1. Wherever possible, groups of PWDs shall be seated in subgroups to enable a rapid flow of other passengers during an evacuation.

2. Travel by groups of PWDs shall always be subject to applicable regulatory and operating airline procedures.

1.4.4.4. MAXIMUM NUMBER OF PWDS AND ASSISTANCE REQUIREMENT

a. In circumstances where the number of PWDs forms a significant proportion of the total number of passengers carried on board, the number of PWDs should not exceed the number of able-bodied persons capable of assisting during an emergency (or as per local regulation).
b. For personal care attendants and/or safety assistants' requirements, refer to operating airline procedures.

1.4.5. PASSENGER REQUIRING MEDICAL CLEARANCE

1.4.5.1. PASSENGER REQUIRING MEDICAL CLEARNCE – GENERAL

a. No medical clearance or medical forms are required for passengers who only require special assistance in the airport or when embarking/disembarking.
b. Medical clearance is required by the airline if the passengers:

1. Have any disease that is believed to be actively contagious/communicable.
2. Are considered to be a potential risk to the safety or punctuality of the flight, including the possibility of diversion or unscheduled landing.
3. Are incapable of caring for themselves and require special assistance.
4. Have a medical condition that may be adversely affected by the flight environment.

Note: Passengers not falling into these categories normally do not need medical clearance however, if in doubt, the airline should be advised so it can decide whether a medical clearance is required or not.

c. Passengers with medical cases as applicable:

1. LEGL (Left Leg in Cast)–for passenger with a left leg in a full cast or fused knee (only to be used in conjunction with SSR code MEDA).
2. LEGR (Right Leg in Cast)–for passenger with a right leg in a full cast or fused knee (only to be used in conjunction with SSR code MEDA).
3. LEGB (Both Legs in Cast)–for passenger with both legs in a full cast (only to be used in conjunction with SSR code MEDA).
4. MEDA (Medical Case)–company medical clearance may be required. Not to be used for passengers with disabilities or reduced mobility who only require assistance or handling and who do not require a medical clearance. Refer to IATA Resolution 700 and AIRIMP 3.7.6 for guidance.
5. OXYG (Oxygen)–passengers travelling either seated or on a stretcher, needing oxygen during the flight (only to be used in conjunction with SSR Code MEDA).
6. AOXY (Airline Supplied Oxygen)—for passengers travelling either seated or on a stretcher, needing oxygen during the flight (only to be used in conjunction with SSR code MEDA) (by bilateral agreement).
7. STCR (Stretcher Passenger).

1.4.5.2. MEDICAL INFORMATION FORM

Each airline can use the IATA Medical Information Form (MEDIF) or use the operating airline's own form, if applicable.

IATA MEDIF–Attachment A

IATA MEDIF–Attachment B

1.4.5.3. FREQUENT TRAVELERS MEDICAL CARD

If a passenger is a frequent airline traveler and has a stable medical condition as established by an initial medical clearance, a Frequent Traveler's Medical Card (FREMEC) may be issued by the operating airline.

A FREMEC shall be acceptable as medical clearance provided that:

a. The travel is completed within its validity.
b. The medical condition corresponds with the description provided.
c. The passenger is its rightful holder.
d. Any limitations stated thereon are observed.

The IATA FREMEC form can be downloaded from the IATA Medical Manual at https://www.iata.org/en/publications/medical-manual/, or use the operating airline's own form, if applicable.

1.4.5.4. ADVANCE NOTIFICATION

Passengers are asked to advise the airline of their needs at the time of reservation.

Advance notification is required for the following, subject to airline acceptance and approval:

a. Passengers traveling on a stretcher.
b. Passengers requiring a personal portable oxygen concentrator, ventilator or respirator on board.
c. The carriage of an incubator.

Notes:

1. Information on the type of mobility aid as well as its weight, dimensions, battery type, special information (i.e., free wheel mode, removeable parts, Internet of Things (IoT) devices, seating systems, reclining mechanisms etc.) should be made available, to enable determine how to safely handle, secure and load the mobility aid.
2. The types of mobility aids are diverse, and each type of mobility aid has specific locations on the frame for tie downs and disassembly/assembly, care shall be observed when handling and loading/unloading.

1.4.5.5. SEATING

MEDA passengers are entitled to the most appropriate seating according to their needs, including the stowage of on board medical devices or equipment.

a. Provide appropriate seating, as per operating airline–procedures and MEDA passenger actual needs:
b. Provide adjacent seating, as applicable, for:

1. Personal care attendants
2. Safety assistants
3. Readers/interpreters in the case of a vision or hearing impairment

c. PWD/MEDA passengers may not be seated in emergency exits. Refer to Recommended Practice 1700c for more details.

1.4.5.6. REQUEST FOR ASSISTANCE WITHOUT FURTHER NOTICE

If a passenger's needs were not communicated at the time of booking, or a passenger is identified as a PWD or potential MEDA case upon departure, make all reasonable efforts to accommodate the passenger without delaying the flight. Ask appropriate questions and record required codes in the DCS.

1.4.6. HANDLING OF PWDS NOT REQUIRING MEDICAL CLEARANCE

1.4.6.1. PROCESSING

Check additional needs have been communicated via the appropriate SSR codes and entered into the DCS and PNR. Verify personal care attendant and safety assistant requirements are fulfilled, if applicable.

1.4.6.2. RIGHT OF REFUSAL OF PWD AND/OR MEDA CASES

a. General
Refusing a PWD/MEDA passenger requires a legitimate reason. A PWD and/or MEDA case may be refused based on the operating airline's General Conditions of Carriage (Right to Refuse Carriage).

b. Reasons for Refusal
Do not refuse a PWD/MEDA passenger for reasons related to their disability or conditions unless one of the following reasons is applicable, and in accordance with operating airline procedures:

1. The person has such a degree of physical infirmity that the trip would likely result in complications or death, leading to a diversion.
2. The person requires individual nursing or care during the flight and is not accompanied by a suitable personal care attendant and/or safety assistant.
3. The person, because of their physical or medical condition, poses a direct threat to the health or safety of other passengers, their property, the aircraft or crew. Furthermore, the threat cannot be eliminated by providing additional aid or services or by other means (e.g., face masks, separate seating).
4. The person fails or refuses to submit themselves to the specific conditions of carriage required by the operating airline.
5. 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.
6. The person has a communicable disease and is in the infectious period (or does not have proper medical clearance).

7. Stretchers may be refused as per the aircraft type or airline procedures.

c. Handling of PWD/MEDA Refusals

In the case of refusal of a PWD and/or MEDA case, inform the passenger and explain the reason for refusal with reference to the General Conditions of Carriage.

Apply operating airline procedures with respect to rebooking to a later date and/or making all efforts to accommodate the passenger on the next possible flight, if applicable, or refunding the ticket.

1. Enter all relevant information about the reason for refusal into the PNR or in the operating airline report (e.g., passenger refused [flight/date], lack of safety assistant [SITA address/agent name]).
2. Forward the PNR or report to the appropriate airline department. Document all details of the incident and submit as specified by operating airline procedures and local regulations.

1.4.7. STRETCHER TRANSPORT

If accepted by the operating airline, transport on a stretcher can be arranged provided advance notification is given for a passenger to be transported in a lying-down position.

a. If stretcher transport has been confirmed at the time of booking, accept the passenger as per operating airline procedures. Once stretcher transport is confirmed seats should be blocked in the check-in system (if check-in system is open)
b. Verify STCR codes
c. Update status details in the check-in record
d. Acceptance of stretcher cases is linked to:

1. Acceptance conditions of PWD/MEDA cases
2. Provision for stretcher installation on board the aircraft (i.e., time permitting for removable of seats)

1.4.8. OXYGEN FOR MEDICAL USE

Once the operating airline has accepted a passenger requiring the use of oxygen on board an aircraft:

a. Arrange pre-boarding for the passenger.
b. Verify or add SSR codes for assistance.

1. Airline supplied oxygen during a flight (AOXY).
2. Personal Portable oxygen concentrator (POC).

c. Seat the passenger as per operating airline procedures allowing for stowage of equipment.

1.4.9. INADMISSIBLE PERSON AND DEPORTEES

1.4.9.1. INADMISSIBLE PERSON

a. An inadmissible person (INAD) is a person who is or will be refused admission into a state by its authorities.
b. An INAD should depart on the first available flight.
c. The operating carrier should be advised by the responsible local authority about the conditions and the state of the INAD. This should be done well in advance of boarding.
d. Advise the cabin crew and PIC of INAD persons with judicial proceedings.
e. All stations en route shall be advised of the INAD on board.

> **Note**: In general, INADs travel without being accompanied.

f. If assessed by the responsible authority, INADs may be accompanied if:

1. The INAD physically resists carriage.
2. The INAD has already been denied transportation by another airline.
3. There is any sign the INAD might endanger the safety of the flight or passengers.

For the above reasons, unaccompanied INADs may be refused at any stage.

1.4.9.2. DEPORTEES

a. A deportee (DEPO) is someone who:

1. Has been formally ordered by the authorities to leave that state.
2. Is under arrest.
3. Has to be transported to another state for legal reasons.
4. Has applied for asylum and is transferred to the state responsible for the application.
5. Is described by the term in the "Dublin Convention" as the reason for transportation.

b. DEPA–deportee accompanied: a deportee who is escorted by security personnel during flight.
c. DEPU–deportee unaccompanied: a deportee who is not escorted by security personnel during flight.

> **Notes:**
> 1. The responsibility for deportees lies fully with the state(s) concerned.
> 2. Deportees will be accepted for carriage only upon the request of an authority and on operating airline approval.

d. If a DEPO resists transportation or gives rise to the assumption that they will be the source of annoyance to other passengers or crew members, only accept the DEPO according to the procedures for a DEPO who is escorted by authorized personnel during the removal (DEPA).
e. Refuse the carriage of deportees or inadmissible passengers if they are likely to:

1. Involve any risk to the safety of the flight.
2. Involve any hazard or risk to themselves, other passengers or crew members.
3. Cause discomfort or make themselves objectionable to other passengers.
4. Require special assistance from ground or in-flight staff.

f. Advise the cabin crew and PIC of DEPO passengers with judicial proceedings. As a starting point the PIC should always be informed of INAD and/or DEPO transportation whether they are with judicial proceedings or not.
g. All stations enroute shall be advised of the DEPO on board.

1.4.9.3. SEATING OF INADMISSIBLE PERSON AND DEPORTEE

Assign INADs, DEPOs and their escorts to seats in the rear of the cabin, but not directly adjacent to exits, in accordance with operating airline procedures.

1.4.9.4. TRAVEL DOCUMENTS OF INADMISSIBLE PERSON AND DEPORTEE

Hand the travel documents to the crew if required by local authorities, local regulations or operating airline procedures.

1.4.10. UNRULY PASSENGERS

1.4.10.1. GENERAL CONDITIONS OF PASSENGER CARRIAGE

For flight safety reasons, carriers may refuse carriage or onward carriage of any unruly passengers and/or those who appear by manner or physical indications to be under the influence of alcohol or drugs. This includes prevention of any violation of applicable laws, regulations or orders of any state or country to be flown from, into or over.

1.4.10.2. HANDLING UNRULY PASSENGER DURING CHECK-IN OR BOARDING

Report to the supervisor any unruly passenger behavior observed at check-in, in the lounge or at the boarding gate. Put baggage of such passengers on standby.

1.4.10.3. UNRULY PASSENGER DENIED CARRIAGE

If an unruly passenger is denied carriage:

a. Offload the passenger in the DCS and offload their baggage from the aircraft.
b. Document the case in the airport or airline report with details of the passenger's condition (e.g., intoxication, general abuse).

1.4.10.4. UNRULY PASSENGER IS ACCEPTED FOR TRAVEL

If an unruly passenger is accepted for travel:

a. Inform the PIC and the senior cabin crew member.
b. Document the case in the airport or airline report with details of the passenger's condition (e.g., intoxication, general abuse).
c. Report the incident to the applicable departments and the onward airport.

1.5. PASSENGER DISRUPTIONS

1.5.1. INFORMATION AND COMMUNICATION TO PASSENGERS

In general, provide accurate information immediately and at regular intervals:

a. Ensure staff are briefed for consistent delivery of information.
b. Brief staff on the estimated time of departure, estimated time of arrival, and any provisions being offered.
c. Provide passengers with written information about their rights according to applicable regulations, upon request or as required.
d. Provide information in alternate formats to passengers with disabilities.

1.5.2. DELAYS

1.5.2.1. DISRUPTION PRIOR TO OR DURING CHECK-IN

a. Update revised times in the DCS.
b. If applicable and as per operating airline procedures, rebook any connecting flights according to the airline's priority sequence.
c. Check the passenger and baggage through on the rebooked flight.
d. Update the airport flight information display system (FIDS).
e. Arrange the needed amenities (e.g., meals, hotel accommodation (HOTAC), transportation, passenger assistance, lounge access) according to the nature of the disruption.

1.5.2.2. DISRUPTION PRIOR TO OR DURING BOARDING

a. Reconfirm the departure gate/time and update the revised information in the DCS.
b. Advise passengers accordingly and at regular intervals.
c. Apply airline-specific procedures for certain categories of passengers.
d. Update the airport FIDS.
e. Arrange the needed amenities (e.g., meals, HOTAC, transportation, passenger assistance, lounge access) according to the nature of the disruption.

1.5.2.3. DISRUPTION UPON ARRIVAL

In the case of the delayed arrival of a flight:

a. The misconnecting passenger and baggage shall be rebooked and re-flighted accordingly.
b. Update airport FIDS.
c. Arrange the needed amenities (e.g., meals, HOTAC, transportation, passenger assistance, lounge access) according to the nature of the disruption.

1.5.3. MISCOENNECTIONS/CANCELLATIONS/DIVERSIONS

Handle misconnections, cancellations and diversions in accordance with the operating airline's General Conditions of Carriage.

1.5.4. INVOLUNTARY CHANGE OF CLASS

Involuntary changes of class shall be handled in accordance with operating airline procedures.

1.5.5. DENIED BOARDING DUE TO UNAVAILABILITY OF SEATS

a. Passengers holding a confirmed reservation may be denied boarding due to a variety of reasons for example:

1. Overbooking of the flight.
2. Reduced aircraft seating capacity due to unserviceable equipment.
3. Reduced weight/seat capacity due to a payload restriction.
4. Change of aircraft type or version.

b. Apply operating airline procedures for denied boarding:

1. If applicable, solicit volunteers and offer compensation and/or reprotection .
2. Provide written notice, as per government regulations.
3. Apply the airline's involuntary denied boarding procedures if insufficient volunteers are solicited.

1.5.6. MISHANDLED OR UNCLAIMED BAGGAGE

1.5.6.1. MISHANDLED OR UNCLAIMED BAGGAGE – GENERAL

a. Mishandled or unclaimed baggage include one or more of the following baggage disruption incidents:

1. Delay of checked baggage
2. Loss of checked baggage
3. Damage or partial loss of checked baggage
4. Pilferage of baggage or items from baggage

b. Enter mishandled or unclaimed found baggage details into the tracing system as defined by operating airline procedures.
c. Legal time limits apply to the reporting of loss, delay, damage or pilferage of baggage, see operating airline policies and applicable conventions.

1.5.6.2. STORAGE OF MISHANDLED BAGGAGE

Store mishandled baggage in a safe and secure area where access is controlled. Where required, make sure such baggage is subject to security controls before being loaded into an aircraft in line with the security requirements of the forwarding carrier, receiving carrier and relevant authorities.

1.5.6.3. HANDLING OF MISHANDLED BAGGAGE

a. Mishandled baggage shall be forwarded without charge by the fastest possible means using the services of any IATA member airline, to the airport nearest to the passenger’s address.
b. Ensure the number of unaccompanied bags is included in the baggage counts for load control.
c. Use a RUSH indicator (manual and/or electronic), when applicable.

1.5.6.4. DELIVERY OF MISHANDLED BAGGAGE

Previously mishandled baggage shall be delivered in the most appropriate and fastest way in line with operating airline procedures.

1.5.6.5. ON-HAND BAGGAGE

On-hand baggage or unclaimed found baggage is baggage that has missed the flight upon which it was intended to travel. The station/handling agents that created the on-hand file are responsible for the tracing for the first five days. Then, it is sent to secondary/central tracing for further action.

1.5.6.6. DELAYED CHECKED BAGGAGE/MISSING BAGGAGE

Delayed baggage is checked baggage not available to passengers when they present the baggage identification tag at the point of stopover or destination. For the first five days, the station that created the tracing file is responsible for primary tracing and information to the passenger about the status of the file. The maximum tracing period should be 21 days (as per the Montreal Convention) but may be longer based on operating airline procedures.

Baggage that has missed the flight upon which it was intended to travel should be considered to be on-hand.

1.5.6.7. SECONDARY TRACING

Secondary tracing is the process of taking over the responsibility for further action on open mishandled baggage tracing files by the department as defined by operating airline procedures.

1.5.6.8. MISHANDLED MOBILITY AIDS

Damaged, delayed or missing mobility aids should be handled as a priority:

a. Document incident as per operating airlines procedures.
b. Make all possible efforts to provide a suitable equivalent loaned item or replacement, as needed and as per operating airline procedures.
c. Arrange for the repair or replacement of the item, if needed.

1.5.6.9. MISHANDLED LIVE ANIMAL

Delay of or injury to an AVIH should be handled as a priority.

2 BAGGAGE HANDLING PROCEDURES

2.1. THE BAGGAGE JOURNEY

This chapter presents the flow of baggage handling from the planning and preparation of activities, though execution and monitoring of the processes. Baggage check-in procedures are addressed in Chapter 1 of this manual.

The chapter covers standard baggage handling procedures. Since airlines and airports differ from one another, deviations from these procedures are possible.

Baggage tracking is part of the IATA End to End baggage program that aims to improve baggage handling efficiencies through information sharing.

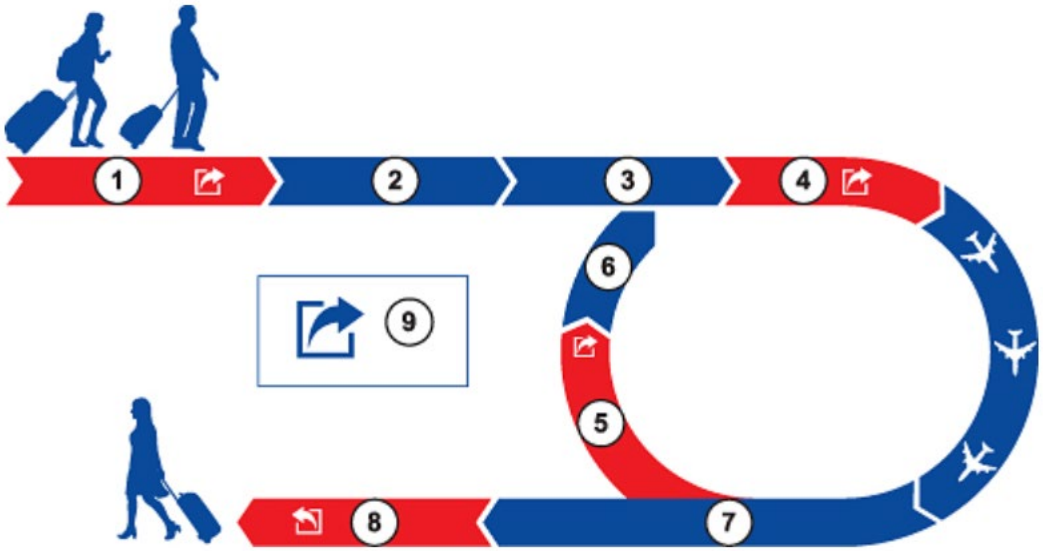
As per Resolution 753, IATA members shall maintain an accurate inventory of baggage by monitoring the acquisition and delivery of baggage.

Members shall be able to:

a) Demonstrate delivery, of baggage when custody changes
b) Demonstrate acquisition, of baggage when custody change
c) Provide an inventory of bags upon departure of a flight
d) Exchange the above information with other airlines as needed

The provisions of Resolution 753 have been in effect since 1 June 2018.

The diagram shows the generic flow of checked baggage, from baggage acceptance through to the return of the baggage to the passenger. In some cases, and upon specific arrangements that recognize security measures between airports of origin, transfer and arrival, transfer screening may become non-mandatory.



NUMBER	DESCRIPTION
1	Departing Baggage
2	Security
3	Sort
4	Baggage Build
5	Transfer Baggage
6	Security
7	Unload
8	Arrival
9	Information Sharing

2.2. BAGGAGE ACTIVITIES

2.2.1. INTRODUCTION

There are several baggage activities that take place in an airport. These can be broadly classified as:

a) Passenger Baggage Acceptance. (see GOM 1.1.6)
b) Baggage Handling–this chapter
c) Aircraft Loading and Unloading. (see GOM 4.5)

Note: Passenger baggage is baggage that remains with the passenger during their journey and travels in the hold of the same aircraft as the passenger. This may include cabin baggage retrieved for various reasons that may need to be checked in (See GOM 1.1.6.2).

2.2.2. PERSONNEL ROLE

Throughout this chapter, reference is made to tasks that are performed to execute baggage operations. These tasks may be undertaken by different types and groups of personnel depending upon the operation size and structure at the airport. Typical roles include:

a) Management staff member–responsible for overseeing the performance of the operation, making decisions on how to operate based on feedback from the operational personnel.
b) Support staff member–responsible for planning baggage operations and collecting metrics, including rerouting misconnections to ensure a smooth baggage operation.
c) Baggage personnel–operational personnel who are responsible for the movement and monitoring of baggage through the dedicated baggage make-up areas, including immediate reporting of any unauthorized persons in the baggage make-up area, reconciling baggage and collecting/delivering baggage from/to the aircraft.
d) Ramp loading personnel–operational personnel who are responsible for ramp activities, including loading and/or offloading and immediate reporting of any unauthorized persons on the ramp (without a visible airport badge).

2.3. SAFE BAGGAGE HANDLING

It is important that all personnel are aware of the risks associated with baggage handling, are properly trained and follow the guidance below as a minimum to ensure their health and safety:

a. Handling Techniques

1. Baggage handling operations require personnel to manually handle equipment and baggage, such as pushing and pulling non-motorized GSE (e.g., baggage carts), loading heavy bags, ULDs, etc.
2. Baggage personnel should be aware of the best lifting techniques to be utilized at all times to reduce the risk of injury while handling baggage.
3. See AHM 462 4.5.3 for handling techniques and principles of manual handling.

b. Baggage personnel should not lift more than their physical capabilities to avoid injuries.

c. Ensure appropriate care is taken regarding health and safety to ensure personnel do not sustain injuries while handling baggage Where available, make use of assistive devices for moving heavy loads.
d. Ensure appropriate personal protective equipment (PPE) is available and used.
e. Ensure baggage is handled in an appropriate manner (e.g., positioned rather than thrown onto the belts).
f. When using baggage carts or dollies, use the safety precautions as per GOM 3.1.3.3.
g. Verify the coupling/uncoupling of baggage carts, dollies and/or trailers. Ensure nobody is working between or nearby prior to moving.

Danger:

Be extra careful of hands, fingers and feet when moving and connecting baggage carts or dollies to the tractor or another GSE. Always use the handle and never the tow ring. Seek assistance, if required.

2.4. DEPARTURE BAGGAGE HANDLING (INCLUDING SPECIAL BAGGAGE)

2.4.1. PLANNING

Depending on the size of operation of a station, it is important for each departing flight, a pre-planning process is put in place to include:

a. Review all types of expected checked items for each departing flight and plan for:

1. The number of checked items and their categories (i.e., transferring or terminating baggage)
2. The required number of carts and ULDs
3. Handling of any special baggage items that are planned for departure
4. Staff assigned to deliver baggage to/from the aircraft/staging area (refer to GOM 4.5.6.2).

b. Review the arrival of transfer baggage for the departing flight:

1. Determine which arrival flights have transfer baggage for the departing flight.
2. Monitor these flights for the transfer baggage to ensure the transfer baggage can make their connections.
3. Plan for short-connection baggage to the baggage sorting system or on a tail-to-tail basis as needed.

c. Review the departure flight parking stand location to plan for on-time delivery of baggage.

1. Determine the driving time to the departure stand.
2. Determine any special conditions for the use of the stand, such as supervision of baggage awaiting loading or additional security measures in place for the flight.
3. Consider adverse weather conditions and protection from extreme temperatures.

d. Plan for any special handling equipment that will be used and brief baggage personnel on their use, as needed. This may include processes and procedures for handling mobility aids, weapons, live animals, etc.

2.4.2. PREPERATION FOR DEPARTING BAGGAGE

a. Verify the build location that has been allocated for the departure flight

There may be more than one build location for the flight, such as:

1. Specific segregations being built in different areas
2. Specific build location for out-of-gauge (OOG) items, (e.g., sporting equipment)

b. Ensure that the baggage personnel working at the OOG baggage point are aware of the build and/or allocated stand for delivery of items that arrive at the OOG point.
c. Ensure the signage for the flight departure is up to date (i.e., stand information is appropriately displayed).
d. Ensure the ground personnel handling the flight are aware of any special baggage items requiring processing, especially mobility aids.

2.4.3. EXECUTION OF DEPARTING BAGGAGE

a. Ensure the baggage build location (e.g., baggage chute/carousel/lateral) and segregation for the departing flight is correct by validating against the baggage sortation plan.

If baggage is destined for another build area arrives at the build output:

1. Notify the BHS team.
2. Move these bags to the correct build output or pass them to baggage handlers.

b. Ensure the Unit Load Device (ULD) for the baggage to be loaded is serviceable (see GOM 4.5.9.3).
c. Ensure any baggage carts being used are serviceable (see GOM 3.1.3.3).
d. Ensure all mandatory screening and securing of baggage is performed as required.
e. Produce ULD cards showing the correct flight and segregation of baggage for that ULD/baggage cart.
f. To identify containers and baggage carts, and to allocate the appropriate segregation and flights, it is necessary to produce ULD cards (electronically or manually). These cards are often produced in the baggage reconciliation system (BRS) and show a barcode that can be scanned to identify the allocation of the container or cart to the baggage reconciliation/tracking system. These are known as ULD cards. Apply sorting and loading procedures for containers and carts based on operating airline procedures with respect to checked baggage tagged as:

1. Priority baggage
2. Heavy baggage
3. Connection baggage
4. Late baggage
5. Fragile baggage
6. Sporting equipment
7. Mobility aids
8. Live Animals in Hold (AVIH)
9. Crew baggage
10. Baby strollers/push chairs
11. Gate delivery items
12. Items containing dangerous goods (i.e., dry ice)

13. Standby baggage
14. Items with a limited release tag

g. All BHSs are subject to errors. This means that occasionally baggage will be directed to either a default output point or arrive at the wrong output point. Without human action, this baggage will miss its intended flight. Therefore, based on the local provider and/or airport authority, and subject to airline and ground handler agreements, it is advised to have baggage teams that can take this baggage from the incorrect output location to its intended location or flight.
h. Where baggage is being palletized, ensure the pallet is structurally safe and the net attachments are in place (see GOM 4.5.7).
i. Where tracking/reconciliation is performed electronically in the baggage make-up area:

1. Scan the ULD/baggage cart card for the designated appropriate category.
2. Scan the barcode of the baggage tag.
3. Verify the load has been confirmed as being on the correct flight (obtain a "Positive" passenger bag match by visually inspecting the baggage tag and by electronically scanning the tag to ensure a confirmed load response is received from the scanner).
4. Place tagged baggage in the appropriate ULD/baggage cart. Ensure baggage is handled in an appropriate manner (e.g., positioned rather than thrown into the ULD/baggage cart).
5. Place the baggage to one side for resolution in case the baggage is identified as not being a "Positive" passenger bag match or not loaded to the correct flight/destination.
6. Compare expected baggage count and received baggage count to achieve a zero-baggage missed rate.

j. Where reconciliation is performed manually in the baggage make-up area:

1. Visually inspect the baggage tag to check the flight number and destination.
2. Detach one of the removable tabs and apply to the ULD/baggage Bingo card.
3. Load in numbered sequence (in loading order) to assist offloading if applicable.
4. Place tagged baggage in the appropriate ULD/baggage cart. Ensure baggage is handled in an appropriate manner (e.g., positioned rather than thrown into the ULD/baggage cart).
5. Compare expected baggage count and received baggage to achieve a zero-baggage missed rate.

k. When the ULD/baggage cart is filled and an appropriate number of ULDs/baggage carts are available for delivery, the build is complete or at a specified time before departure:

1. Close and seal the ULDs and/or cover baggage carts, as appropriate.
2. Arrange delivery of the ULDs/baggage carts to the aircraft for loading. If applicable, coordinate with the ramp personnel responsible for aircraft loading.

l. Wheelchairs and Mobility aids delivered for carriage in the check-in area:

1. Ensure that the mobility aid is collected from the check-in area and taken to the baggage build area via the allocated OOG baggage route, as defined by local airport regulations. At some locations, the OOG baggage route will necessitate the mobility aid being walked through a security checkpoint to reach the baggage build area.
2. Handle all mobility aids in accordance with the IATA Dangerous Goods Regulations Manual (IATA DGR).
3. Ensure that the person responsible for planning and loading the aircraft is advised of the number and types of mobility aids processed for carriage. Typically, this information is disseminated to the next station via a Load Distribution Message (LDM) or container pallet message (CPM).

m. Where tracking/reconciliation is performed at the aircraft side:

1. Unload the baggage from the baggage cart directly onto the loading conveyor for the appropriate aircraft hold into which the baggage will be loaded.
2. Scan the baggage tag barcode or baggage license plate number for the baggage to be loaded.
3. Verify the load has been confirmed as being on the correct flight (i.e., Positive passenger bag match has succeeded for the baggage).
4. In case the baggage is identified as not cleared to load then place the baggage to one side for resolution.
5. When baggage is loaded and a passenger does not board the flight or is removed from on board the aircraft, follow operating airline procedures for treating the baggage (i.e., off-loading or transporting the baggage as unaccompanied), according to the risk assessment and locally applicable regulations.

n. At the completion of the baggage build process, the baggage personnel should do a cross-check that the baggage has been built according to the load plan for the departing flight with load control. Discrepancies and variations need to be communicated to the load control, as soon as possible.

2.4.4. HANDLING GATE DELIVERY ITEMS

a. The passenger team will identify and label any baggage that is taken from a passenger at the gate due to size and/or weight restrictions.
b. Record the baggage tag for tracking and/or reconciliation as per operating airline procedures.
c. Ensure the item is collected from the gate area to the aircraft for loading.
d. Where a passengers wishes to continue to use their own mobility aid until they have boarded the aircraft ensure that:

1. The mobility aid is collected after the passenger has boarded the aircraft.
2. The mobility aid is handled in accordance with the IATA DGR.
3. Ensure that the persons responsible for the planning and loading of the aircraft is advised of the number and types of mobility aids processed for carriage. Typically, this information is disseminated to the next station via the LDM or CPM.

e. To ensure gate delivery items required to be made available at the aircraft door (i.e., Wheelchairs, Mobility aids and/or Strollers):

1. Ensure a Delivery At Aircraft (DAA) flag/exception code is updated in the Baggage Source Message (BSM) and/or Baggage Processed Message (BPM).
2. Ensure a DAA tag is applied to readily identify the item in the aircraft hold.
3. Scan the DAA's baggage tag.

Note: See GOM 1.1.6.12 for DAA procedures.

2.4.5. MONITORING THE DEPARTING BAGGAGE OPERATION

Baggage performance monitoring is a key element of airline and baggage handling operations. There are a number of metrics that can be captured and applied to key performance indicators. The actual metrics used to monitor the operation depend on the ground handling services providers and airlines involved. Metrics that may be useful include:

a. Number of bags left behind
b. Number of bags accepted late from the check-in/baggage system
c. Number of bags received without tags
d. First bag loaded
e. Last bag loaded
f. Number of gate bags
g. Number of bags delivered to the incorrect system output

2.5. TRANSFER BAGGAGE

2.5.1. PLANNING TRANSFER BAGGAGE

Depending on the number of transfer baggage expected, it is important for each flight with transfer baggage that a pre-planning process is put in place, to be aware that:

a. Transferring baggage may arrive up to 24 hours prior to the departing flight and can also arrive close to the departure time of the departing flight.
b. Planning shall be according to connection times of the arriving feeder flights.

Note: Transfer baggage planning can make a big difference to the overall performance of an airport or airline. The most common causes of baggage mishandling are in the transfer baggage process

c. Review the list of arrival flights to obtain:

1. The number of transfer baggage arriving before the departing flight is open for build. Allocate a storage area for these early bags.
2. The number of transfer baggage that will arrive during the time the departing flight is open for build. In consultation with other stakeholders and subject to approval by local authorities (tail-to-tail) decide if:

I. These bags are being handled by the BHS or being delivered tail-to-tail, if applicable/operationally permissible.

II. Baggage personnel will be allocated to deliver the baggage rapidly to the baggage sortation system or on a tail-to-tail basis for baggage with short-connections.
III. If tail-to-tail operations are planned, inform the baggage hall and ramp personnel so additional loading units are made available on the ramp.

3. The number of transfer baggage that will arrive after the departure flight has closed for build, and determine:

I. If it is possible for the departure flight to accept late baggage and to extend build time and facilities.
II. Identify which baggage is to be re-flighted (refer to GOM 2.9).

d. Plan the use of GSE such as baggage carts and ULDs.
e. Segregate mixed baggage for the departing flight in accordance with the airline's procedures.
f. Plan for any special handling equipment use and brief personnel on that use as needed. This may include processes and procedures for handling mobility aids, weapons, AVIH, etc.
g. For tail-to-tail transfers (in accordance with approval by local authorities):

1. Plan the collection of inbound transfer baggage and the delivery to the departing flight.
2. Plan handover points for the tail-to-tail drivers for the departing flight.

h. Determine the different categories for the departing flight (e.g., premium vs economy baggage, onward connecting baggage containers of baggage that will be unloaded from one flight and loaded onto another during a transfer stop, e.g., Hub containers).

2.5.2. PPREPERATION FOR TRANSFER BAGGAGE

a. Ensure the baggage handling team knows of storage locations for baggage that has arrived prior to departing flight opening so that they can collect the transfer baggage, as necessary.
b. Dispatch the baggage team and any necessary GSE as per their allocated tasks (e.g., collection, delivery).

2.5.3. EXECUTION OF TRANSFER BAGGAGE

a. Collect the transfer baggage from the arrival flight.
b. Deliver the baggage to the appropriate location:

1. Baggage Handling System
I. Deliver the baggage to the transfer baggage inject point.
II. Unload the baggage at the transfer baggage inject point.
III. Scan the baggage to record delivery to the baggage handling system.

2. Tail-to-tail

I. Scan the baggage at the point of collection.
II. Deliver the baggage to the departure aircraft.
III. Scan the baggage upon loading into the departing aircraft.

3. Storage Areas
I. Deliver the bag to the storage area.
II. Scan the bag to record delivery to the storage area.

2.5.4. MONITORING OF TRANSFER BAGGAGE

Transfer baggage should be monitored in accordance with Resolution 753 to record the number of bags making their connections, as applied to departing baggage.

2.6. TERMINATING BAGGAGE

2.6.1. PLANNING

a. Review relevant messages (e.g., baggage manifest message (BMM), CPM, LDM) for the arriving flight to determine the number and location of terminating and transfer baggage, including special baggage.
b. Review the arrival flight parking stand details.
c. Plan for personnel to meet the aircraft and determine the arrival activities, including the time at which they should be present at the stand.
d. Plan any special handling equipment and briefing needed to meet the incoming aircraft.

2.6.2. PREPERATION FOR TERMINATING BAGGAGE

a. Allocate or confirm a reclaim point for the arrival flight based on the number of terminating items expected. Local airport regulations or airline procedures may apply.
b. Allocate or/confirm the terminating baggage inject point.
c. Verify all the allocated GSEs are in good working order.
d. Ensure the baggage team is aware of the delivery locations for terminating baggage including special baggage.
e. Ensure the arrivals ground personnel meeting the aircraft are aware of any special items processing, especially mobility aids.
f. Ensure the signage for the arrival flight is up-to-date and appropriately displayed.

2.6.3. EXECUTION OF TERMINATING BAGGAGE

2.6.3.1. COLLECTION

a. Liaise with the ramp team for the collection of baggage according to the unload plan (e.g., CPM, LDM).
b. Verify the load collected is the appropriate load as per the unload plan/labeling of ULDs and/or baggage labeling.
c. Sign for the handover, as appropriate.

2.6.3.2. DELIVERY

a. Deliver the baggage to the designated location for terminating baggage.

1. Observe the priority plan for the offload. Typically, the priority plan is to place commercially important baggage (e.g., first class, business class) onto the reclaim first, then to place economy baggage onto the reclaim.
2. Observe such government required screening and securing of baggage, as appropriate.
3. First bag/last bag time recording: these times are often key metrics for monitoring baggage performance. Some systems can record this time automatically when a bag is scanned by an automatic tag reader (ATR), while others require manual action such as pushing a button.

I. Where a system is provided that requires a manual operation to indicate the delivery of the first bag, use this when the first bag is delivered.
II. If no such system exists, record the flight number and time of first bag delivery manually if this is required by operating airline procedures.
III. Once baggage delivery is complete, record the time of the last bag either manually or using a system if such a system is provided.
IV. Where required, indicate that the last bag has been delivered by placing a baggage tub on the reclaim marked as last bag delivered or alternatively by tagging the last bag injected to the reclaim with a last bag tag.

b. Ensure there is good communication between the ramp and baggage operations teams and the passenger team regarding the process of the unload, especially in the event of issues or delays.
c. If a bag is visibly damaged, the bag should be secured as per operating airline procedures.
d. Baggage that has been delivered to the arrival hall must be rescreened before being loaded onto another aircraft.
e. Transfer baggage that is accidentally delivered to the arrival hall should be stored securely until processed for transfer.

2.6.3.3. IN THE ARRIVALS HALL

a. If the reclaim belt is overloaded with baggage, bags should be removed from the belt and set aside in a secure manner (i.e., where they can be observed) in an area that does not present a safety risk for passengers.
b. Once all bags have been delivered to the reclaim and passengers have progressed away from the reclaim area, a sweep of the baggage belt should be undertaken to remove RUSH bags and any unclaimed/remaining bags to the lost and found office or other designated area for further processing.

2.6.4. MONITORING OF TERMINATING BAGGAGE PROCESSES

The operational performance indicators needed will vary according to the airline and handling companies involved in the delivery of the terminating baggage. No targets for these measures are shown here, although the following measures may be useful:

a. First Passenger to First Bag
This is the time between the first passenger from an arrival flight arriving at the baggage carousel and the first bag from the same flight being delivered to the carousel. This is a measure from the Airport Design Reference Manual.
b. Last Passenger to Last Bag
This is the time between the last passenger from an arrival flight arriving at the baggage carousel and the last bag from the same flight being delivered to the baggage carousel. This is a measure from the Airport Design Reference Manual.

Note: Both the above measures are difficult to record, as it is not always evident when the first and last passengers arrive at a reclaim carousel, especially if that carousel is allocated to several flights.

c. First Bag Delivery Time
This is the time of delivery of the first bag to the baggage reclaim belt.

d. Last Bag Delivery Time
This is the time of delivery of the last bag to the baggage reclaim belt.

e. Baggage Delivery Duration
This is the duration of the delivery of baggage for an arrival flight, measured from the first bag delivery time to the last bag delivery time. It is also possible to record the delivery time for specific baggage types, such as all priority baggage.

f. Bags Damaged on Arrival
This is a count of the number of bags delivered to the baggage reclaim belt that have been damaged during their journey. This damage can occur at any point in the journey, or the passenger may have used a bag that was damaged before their journey started. It is useful to record this as it allows the number of damaged bags on different flights to be compared

g. Bags Delivered Out of Plan
This is a count of the number of bags that have been delivered out of the intended delivery plan. This can include priority baggage delivered after economy baggage or special baggage delivered to the regular reclaim area, etc.

2.7. SPECIAL BAGGAGE

2.7.1. SPECIAL BAGGAGE - GENERAL

The following needs to apply when handling special baggage:

a. Ensure special baggage to be accepted meets the dimension requirements (e.g., size, weight, volume) as specified by operating airline procedures.

b. Ensure any special baggage accepted for carriage that has not been pre-declared has the required documentation, as per operating airline procedures. This normally applies to Mobility aids, Firearms and AVIH.
c. Ensure all special baggage items are packed in a manner that is suitable for transport and cannot jeopardize the safety of the aircraft, personnel, and its contents.

2.7.2. PLANNING FOR DEPARTING SPECIAL BAGGAGE

See GOM 2.4.1 for preparation of terminating baggage.

2.7.3. PLANNING FOR DEPARTING SPECIAL BAGGAGE

a. Handling of Wheelchairs and Other Mobility Aids are to be carried out in accordance with operating airlines procedures, with the acceptance of electric mobility aids subject to the IATA Dangerous Goods Regulations (DGR) Table 2.3A (see GOM 1.1.6.12(e)).
b. Handling of Crew Baggage (see GOM 1.1.6.12(b))
c. Carriage of Firearms (see GOM 1.1.6.13)
d. Handling of Sporting Equipment (see GOM 1.1.6.12(d))
e. Handling of DAA baggage (see GOM 1.1.6.12(c))

2.7.4. HANDLING LIVE ANIMALS

a. Handling of AVIH is required in accordance with operating airline procedures and IATA Live Animals Regulations (LAR). The acceptance of AVIH is also subject to respective country regulations. (see GOM 1.1.6.12(f))
b. For AVIH delivered for carriage in the check-in area:

1. Ensure that the AVIH is collected from the check-in area and taken to the baggage build area via the allocated OOG baggage route, as defined by local airport regulations. At some locations, the OOG baggage route will necessitate the AVIH being walked through a security checkpoint to reach the baggage build area.
2. Ensure the specific container requirements comply in accordance with the IATA LAR.
3. The animal shall be kept in an appropriate area airside until loading. Depending on the environmental conditions, this area may be enclosed, heated, etc. so the animal does not suffer discomfort.
4. Deliver the animal to the aircraft loading team.

Note: Domestic animals of unusual size, strong breed or wild animals, reptiles and rodents must be transported as cargo.

2.7.5. PLANNING TERMINATING SPECIAL BAGGAGE

a. Review the incoming flight load for the number of special baggage items and their type (transfer or terminating).
b. Review the incoming flight parking details.
c. Plan any special handling equipment and briefings needed to meet the incoming aircraft.
d. Determine the duration of activities so later activities can be planned.

2.7.6. PREPERATION FOR TERMINATING SPECIAL BAGGAGE

a. Verify the reclaim allocated for the arriving flight (see GOM 2.6.2).
b. Verify any GSE allocated are in good working order.
c. Ensure the arrivals ground personnel meeting the aircraft are aware of any special items processing, especially mobility aids.

2.8. DISRUPTION

2.8.1. INTRODUCTION

When planning for disruption, review any known disruptions planned for the operation and the contingency measures planned for the day.

a. Anticipate any likely disruption scenarios.
b. Plan any equipment that is needed to cope with the anticipated disruptions.
c. When planned software maintenance is taking place, ensure there are manual processes available in case the systems being modified fail to restart.

2.8.2. DEALING WITH SPECIFIC OUTAGES

2.8.2.1. BAGGAGE RECONCILIATION SYSTEM OUTAGES

The BHS typically records the loading of the baggage into a container or aircraft hold. BRS failure can severely disrupt an operation, as the manual replacement processes are time consuming. A BRS can fail gracefully where the most recent data remains available in the system and baggage can be reconciled against this data with changes highlighted when connectivity is restored. Training and guidance for such systems should be followed when disruption occurs. When no graceful degradation is possible, manual processes should be adopted using bingo cards and baggage reconciliation stubs.

2.8.2.2. BAGGAGE HANDLING SYSTEM OUTAGES

Most major airports have a BHS to move baggage from the check-in area to the build area. These systems vary in complexity, often having fallback modes and graceful degradation modes before the system fails totally.

When the BHS fails there are two issues that need to be dealt with:

a. Bags that are trapped in the BHS and need to be removed.
b. Bags that are waiting to be checked in.

Local procedures will vary for when the BHS fails, as the system design will determine the state of the bags when there is a failure. While the key stages of baggage processing (i.e., cleared as safe for transport, storage build) can be completed without a BHS the capacity of the airport will be reduced.

2.8.2.3. EQUIPMENT ISSUES

When equipment is found to be unusable, damaged or nonfunctional during the planning phases of the operation this equipment should be flagged as unusable and moved to a location where it can be collected for repair or repaired.

2.8.2.4. STAFFING ISSUES

It is possible to have a large percentage of personnel off work at the same time. When this happens there is a risk that the operation will be short-handed, leading to delays. Where possible, have a prepared list of staff on call who may be contacted to fill in roster gaps.

2.8.2.5. DIVERSIONS

When a flight is diverted to a station:

a. Review the flight documentation/messages (e.g., Baggage Manifest Message, Cargo Pallet Message, Load Distribution Message) for mobility aids, AVIH and other items requiring special processing. Ensure the guidance under special baggage handling is followed, if available.
b. Ensure there is a plan to unload the baggage from the flight in accordance with the intention for the passenger movements:

1. If the aircraft is being replaced, transfer the baggage to the new aircraft.
2. If passengers are being transferred to other flights, either move the baggage to the next flight or allocate a reclaim carousel for the flight so passengers can collect their bags before continuing with their journey.
3. If passengers are moved using ground transport, ensure a reclaim carousel is allocated to the baggage and deliver the baggage to that reclaim carousel.

2.8.2.6. CANCELLED FLIGHTS

When a flight is cancelled:

a. Deliver the baggage to the alternative flight provided, or
b. Deliver the baggage to a reclaim allocated to the original flight so the passengers can collect their bags.

2.9. MISHANDLED BAGGAGE

2.9.1. INTRODUCTION

Despite the best efforts of airlines and ground handling service providers, mishandling might occur. When mishandling does occur, procedures should be followed.

2.9.2. PREDEPARTURE MISHANDLING

Pre-departure baggage can have two possible issues needing to run the bag to the correct build location:

a. For baggage without tags where the baggage tag has become detached from the bag:

1. Take the bag to the lost and found baggage office.

Note: A specific handler should have been nominated for tag less bags, as the actual intended flight is not known.

2. Create an On-Hand Report (OHD) for the bag in the tracing system.

b. Bags with tags that have been delivered to the wrong build location or the default baggage system output.

2.9.3. DEPARTURE MISHANDLING

Baggage arriving for the flight post departure

a. RUSH the bag onto the next available flight to the same destination, regardless of carrier (as per IATA Resolution 780).
b. Send a Forward (FWD) message for the bag to the lost and found office of the destination and any connection stations.
c. Send a Baggage Transfer Message (BTM) for the re-flighting (if not done automatically)
d. Follow any additional screening requirements as per local regulations.

2.9.4. TAIL TO TAIL BAGGAGE

If possible, and where permitted by local regulations and airline procedures, coordinate with ground control to ensure flights with connecting tail-to-tail baggage are parked close together in order to minimize the chance of mishandling.

2.9.5. MISSING BAGGAGE

Missing baggage is baggage that was anticipated for a departing flight but has not been received by the operating carrier.

a. Create appropriate tracing files in the baggage tracing system,
b. Create an OHD and FWD messages for the baggage once it is received.

2.10. BAGGAGE SYSTEMS

2.10.1. INTRODUCTION

This section presents a brief overview of the baggage systems that are typically used. Not all airports and airlines will make use of all the systems and sometimes systems will have different names depending on where they are being used.

2.10.2. BAGGAGE RECONCILIATION SYSTEMS

a. Baggage reconciliation ensures that only accompanied or authorized unaccompanied checked baggage is loaded and transported.
b. Baggage reconciliation procedures, either manually or automated, shall be in place where required by local regulations and operating airline procedures. BRSs automate the process of recording where baggage is loaded onto the aircraft and matching baggage details to passengers.
c. In the event the passenger is not on board at departure, the bag may be located and removed, if this aligns to airline required by operating airline procedures.
d. The BRS will typically maintain passenger/baggage reconciliation as required, including:

1. Standby passengers
2. Off-airport and group check-in passengers
3. Voluntary or involuntary deplaning

4. Transit passengers

e. The checked baggage of any passenger who is withdrawn from the flight or did not board (no-show) is to be considered unaccompanied and handled in accordance with operating airline procedures and local regulations, which may include off-loading and additional security controls
f. The BRS is not the only component in reconciliation and once a flight has been closed for check-in, the baggage room flight lead, or the baggage supervisor will:

1. Review total pieces for each ULD.
2. Pass on all baggage ULD figures, including baggage counts for each container and total ULD numbers, so the total load summary can be prepared.
3. Conduct a baggage room sweep to ensure there are no left-behind bags.

g. If baggage is left behind, report this to Baggage Services. Appropriate messages shall be sent to the downline station and arrangements made to expedite the return of the baggage to the passenger.

2.10.3. BAGGAGE HANDLING SYSTEMS

A BHS is used to move baggage through the airport. The system will also often be responsible for key aspects of ensuring baggage security, as the baggage screening machines are integrated into the system. BHSs often have many outputs that allow baggage to be built for an individual flight or segregations for a single flight. Other BHSs output bags to carousels where several flights may be being built at the same time.

2.10.4. BAGGAGE MESSAGING SYSTEMS

Baggage messaging underpins all the movement and processing of baggage. Baggage messages are defined in Recommended Practice 1745 and Recommended Practice 1755–for Type B and Modern Baggage Messaging respectively. Messages are sent to the airport from the airline either via a direct connection or through a message distribution provider such as SITA or ARINC.

2.10.5. BAGGAGE MANAGEMENT SYSTEMS

A baggage management system combines baggage source messages and baggage process messages to provide a real-time picture of the movement of baggage through an airport, often combining information from other systems (i.e., security, handling, reconciliation, flight data) to provide a complete picture for the check-in, handling and loading of aircraft. The system may also allow tasks to be allocated to different teams to handle the baggage. The baggage management system is often a component of an overall airport management system.

2.10.6. BAGGAGE RE-FLIGHTING SYSTEMS

A baggage re-flighting system is used to allocate baggage to a new flight when mishandling occurs. The system will typically have a complete flight schedule for the airport and be capable of generating baggage messages and labels to support the new baggage movement. Some BHSs incorporate baggage re-flighting, allowing bags to be allocated to a new flight automatically and sent directly to the build for that flight.

3 AIRCRAFT GENERAL SAFETY AND SERVICING OPERATION

3.1. RAMP SAFETY IN AIRCRAFT HANDLING

3.1.1. INTRODUCTION

Ramp safety rules and procedures promote safe ground handling. Therefore, the minimum safety rules and procedures defined in this section shall always be applied and understood by all personnel working on the ramp.

Aircraft damage can endanger passengers, personnel and aircraft. Disruptions may also negatively impact safe airline operations.

Even a slight scratch or dent on an aircraft may result in a serious accident.

Any aircraft damage discovered or caused shall be reported. Refer to operating airline procedures regarding reporting of aircraft damage and the local authority.

It is not permitted to smoke or to use lighters/matches/e-cigarettes airside unless in a designated area defined by the local airport operator/regulator.

3.1.2. GENERAL RAMP SAFETY

3.1.2.1. 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 maneuver.

a. Vehicles and personnel shall remain clear of aircraft danger areas when aircraft engines are running and/or the anti-collision lights are on.
b. 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:

1. Engine intake area
2. Engine blast area
3. Propeller rotation area, where applicable

c. Ensure the engine intake/propeller rotation area is clear at all times when engines are running or when the engine is about to start.
d. It is forbidden to pass through the blast area while the engines are running.

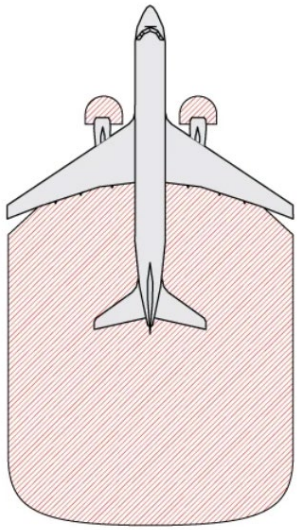
Danger:

Ground personnel and/or equipment shall stay clear of the engine intake and blast areas.

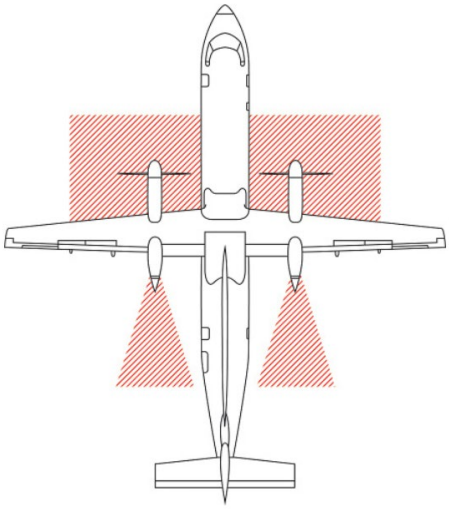
3.1.2.2. ENGINE DANGER AREAS DIAGRAMS

Note: The extent of these areas varies for each aircraft type as well as whether the engines are at IDLE or BREAKAWAY thrust. Refer to the Aerodrome Manual of your airport or the operating airline's Ground Operations Manual (GOM) for applicable distances.

EXAMPLE OF ENGINE DANGER AREA - JET AIRCRAFT



EXAMPLE OF ENGINE DANGER AREA - PROPELLER AIRCRAFT



3.1.2.3. EQUIPMENT RESTRAINT AREA AND EQUIPMENT RESTRAINT LINE

a. 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, etc. *Figure 3.1* provides an example of the markings used at some locations.

b. The ERA shall be free of personnel not involved in the aircraft arrival, obstructions, equipment (refer to exemption GOM 4.1.4.1) and foreign object debris (FOD) before and during aircraft arrival and departure.

Caution:

For safety reasons, spillage should be cleaned immediately to reduce the risk of personnel falling or risk of fire, in case of flammable substance spillage.

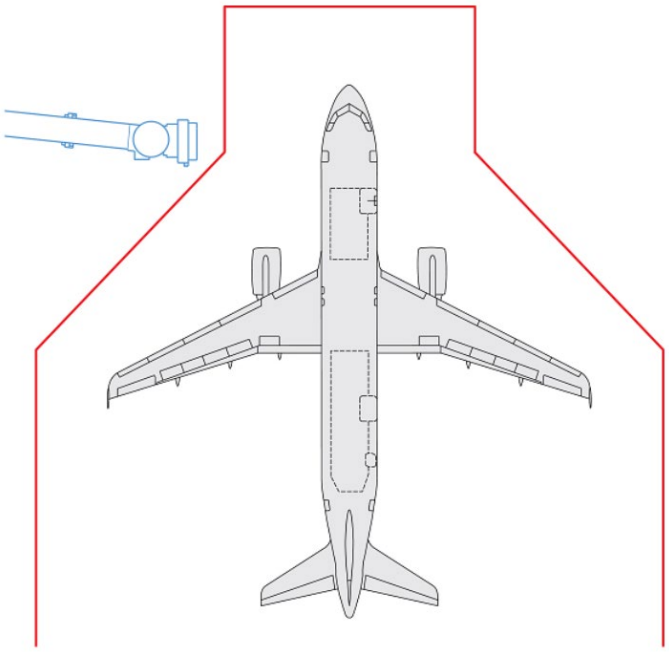


Figure 3.1—Illustration of ERA markings

3.1.2.4. FOREIGN OBJECT DEBRIES

a. FOD applies to all loose objects that are a danger to the safety and integrity of aircraft or personnel. FOD, therefore, shall not be left in any area where it would pose a hazard.
b. 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.
c. Proper management of waste and debris is critical, as, if not disposed of correctly, it may become FOD. FOD can also move into airside locations during high winds.

Examples of FOD:

- Plastic and paper: bags, sheets and towels
- Metal: nuts and bolts, empty oil and hydraulic fluid cans, tools and equipment
- Natural objects: rocks, pebbles and wood
- Other debris: burst ballast bags, luggage handles and wheels, etc.

Caution:

FOD can:

1. **Be sucked or ingested into aircraft engines, causing damage leading to engine failure.**
2. **Cause damage to tires, the undercarriage, control systems and other parts of the airframe, which can lead to in-flight failures.**
3. **Become a trip hazard for personnel working on or around aircraft.**

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

1. Check GSE staging and parking areas near the area of operation.
2. 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.
3. In ramp areas, ensure anything carried in/on a vehicle is secured.
4. Before aircraft arrival, conduct a FOD walkaround of the aircraft parking stand, removing all FOD found.
5. 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.

Note: Refer to your Airport FOD Prevention Program.

3.1.2.5. PERSONAL PROTECTIVE EQUIPMENT

Personnel shall be issued with and wear appropriate PPE as required for their role and as per local regulations to include:

a. Safety footwear
b. Hearing protection
c. High visibility clothing
d. Gloves (if applicable)
e. Any other specified PPE as per local requirements

Note: Neckties or other loose hanging accessories which may pose risk shall be of the quick release type (clip).

3.1.3. SAFETY INSTRUCTIONS FOR OPERATING AND WORKING WITH GROUND EQUIPMENT ON THE RAMP

3.1.3.1. GENERAL SAFETY INSTRUTIONS

Apply these procedures whenever operating GSE on the ramp:

a. Personnel shall only drive or operate GSE if trained and authorized for that specific equipment type.
b. GSE shall not be moved or driven across the path of:

1. Taxing aircraft or aircraft under tow/pushback
2. Embarking and disembarking passengers on the ramp
3. Emergency vehicles.

c. 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.
d. Immediately report any damage found, or where contact has taken place or is suspected to have taken place, especially for composite aircraft.
e. 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.
f. Personnel working with and around vehicles and equipment must protect themselves from loose clothing, long hair, and/or hanging accessories/jewelry from becoming a hazard, e.g., caught or trapped in equipment.

3.1.3.2. BASIC OPERATING REQUIREMENTS FOR GROUND SUPPORT EQUIPMENT

a. Securely stow GSE cables and hoses, where fitted, prior to transportation and when not in use.
b. GSE shall not impede the accomplishment of other aircraft handling operations in progress unless there is an important reason to do so.
c. Check that all areas of GSE are free of contamination, FOD and safe for use prior to and throughout the operation.
d. Operators shall check the GSE assigned to them prior to initial use, particularly the parking brakes, rubber protective bumpers, safety systems and in-life service date of onboard firefighting equipment's. If found to be defective, the GSE shall be reported, tagged as "Out of Service" and removed from operations, when applicable.
e. All safety rails shall be fully retracted/lowered prior to positioning and removal, where possible.
f. Extra personnel shall not be carried on moving GSE without an approved seat (i.e., apply the no seat–no ride principle).
g. Seat belts shall be worn, where fitted, except where repositioning equipment is within the same operational area, e.g., within the parking stand or baggage makeup area.
h. Before moving any GSE/Vehicle ensure all its doors are closed, where fitted.

i. GSE shall not be operated while using handheld Portable Electronic Devices (PEDs), including cellphones, portable music players, portable game units or earpiece or headset.
j. GSE shall only be used for its intended purpose, including for specific aircraft types.
k. Prior to movement of any GSE/Vehicles, the intended travel path shall be checked and confirmed clear of personnel, equipment or other obstacles.
l. GSE with lifting devices shall not be driven or towed in the raised position, except for final positioning onto the aircraft.
m. The GSE platform shall not be operated while in motion.
n. Use a guide person when vision is restricted. The guide person shall be able to accurately judge clearances and communicate signals to the driver/operator. Stop immediately if visual contact with the guide person is lost. Movement shall not continue until visual contact is re-established.
o. Once motorized GSE is in its servicing position at or near the aircraft:

1. Apply the parking brake with the gear selector in park or neutral (if no selection for park).
2. Turn off the engine, unless required when in operating/servicing mode.
3. Install GSE wheel chocks, where equipped.
4. If equipped with stabilizers, ensure they are deployed before the GSE is used for servicing. Deploy other safety devices (e.g., active proximity sensors, safety rails), if fitted.
5. When motorized GSE is in operating/servicing mode, remain in a position whereby the emergency controls can be promptly accessed. This includes the immediate vicinity of the controls or an immediately adjacent and accessible location; for example, the cargo hold in the case of a ULD loader, where required to operate the aircraft cargo loading system (CLS), restraints and/or nets.
6. If motorized GSE is not fitted with external emergency controls, the operator shall remain in the operating position and in control of the equipment when in operating/servicing mode.

Note: As an exception for pushback tractor, the engines may need to be left running unattended:

1. While conducting a single person pushback operation
2. To avoid specific restart by maintenance function

If unattended, apply the parking brake and place the gear selector in park, or neutral if no selector for park.

p. When GSE is chocked:

1. Place one chock at the front and one chock at the rear of the same wheel.
2. Chocks shall be centered on and in contact with the wheel.

q. When unattended motorized GSE/vehicle is positioned in or adjacent to the ERA, other than as described in GOM 3.1.3.2 (o):

1. Turn off the engine. In extreme cold weather conditions where local procedures permit engines running unattended, the motorized GSE shall be chocked.

2. Apply the parking brake with the gear selector in park or neutral, (if no selection for park) and, when equipped, install wheel chocks.

r. The ground power unit (GPU) and preconditioned air (PCA) may be left running unattended when connected to the aircraft, provided the serviceability and fuel levels are checked periodically.
s. A No-Touch policy (i.e., GSE/PBB shall not touch the aircraft) shall be employed for all GSE/PBB types that are not equipped with self levelling sensors. The equipment shall be positioned in a way that ensures:

1. The protective rubber bumpers do not touch the aircraft fuselage.
2. The gap between GSE/PBB and aircraft shall not allow a person or large piece of equipment to fall through. As a guideline, a gap of 5 cm (2 in.) or two fingers should be maintained between the device and the aircraft.
3. Check that throughout the turnaround process a clearance is maintained between the GSE and the fuselage to allow vertical movement.

t. For GSE and PBB equipped with self-levelling sensors. Continue movement until the protective rubber bumpers just touch the aircraft (but shall not be compressed against the fuselage) or the proximity sensors stop the movement.
u. After positioning equipment on the aircraft, raise or extend all safety rails on conveyor belts, loaders, and other elevated devices, except where restricted by the aircraft type.
v. GSE shall be parked in the designated airside equipment parking areas when not in use.
w. Access to firefighting equipment or the fuel hydrant emergency stop switch shall not be obstructed.

Note: For GSE operations during adverse weather refer to GOM 3.3 Adverse Weather Conditions.

3.1.3.3. NON-MOTORIZED GROUND SUPPORT EQUIPMENT

The following precautions shall be taken when operating non-motorized GSE:

a. When parked and/or when not connected to motorized vehicles, all non-motorized GSE shall have brakes set or chocks in place. Dollies/carts shall be connected as a chain, where possible.

Exception: Aircraft towbars.

b. ULDs shall be secured on dollies (or trailers/trucks) using the appropriate restraints.
c. Pallet and container dollies may only be towed with turntables in the locked position (straight ahead).
d. The number of carts and dollies allowed is usually limited by the local airport authority or ground handling service provider, however, in critical conditions (e.g., slippery surface conditions, congested facilities, low visibility) the number should be reevaluated and might be reduced to ensure safe operations on the ramp.

e. Know the dolly types as some dollies are not compatible with others. Follow the recommended towing combinations when transferring dollies from one place to another. Do not tow more units than the recommended sets or combinations.
f. When connecting or disconnecting dollies/carts to/from the tow bar, hold only the tow bar handle and tow pin of the dollies/carts. Do not hold the tow eye when connecting or disconnecting.
g. Position oneself beside the tow bar when connecting or disconnecting dollies/trolleys ensuring the tow-pin is properly inserted before towing and use the tow bar handle to connect and or disconnect dollies/trolleys.
h. During transportation with carts and dollies, the load shall be properly secured using appropriate locks, stops, rails, curtains and straps.
i. The overall height of loads shall permit safe lifting of each piece of the load during loading and offloading of carts by personnel standing on the ground.
j. Light packages shall not be wedged between heavier items.
k. When using tarpaulins, all straps shall be securely fastened to the baggage cart.
l. If equipped with stabilizers, ensure they are deployed before the GSE is used for servicing or access. Deploy other safety devices (e.g., active proximity sensors, handrails), if fitted.
m. If using maintenance stairs e.g., to open and close cargo hold doors:

1. The stairs shall be fitted with safety rails to prevent falls.
2. Maintenance stairs should be facing towards the panel which is being accessed. Retractable/extendable safety rails shall be lowered or retracted during positioning.
3. Raise or extend retractable/extendable safety rails prior to any personnel accessing the stairs.
4. Moving or repositioning the stairs is not permitted while a personnel are on the stairs.

n. Towable air start units (ASU), PCA and GPU shall not be connected to the tow vehicle and aircraft at the same time, if possible. Before towing the unit away, the operator shall ensure the unit is disconnected from the aircraft.

Danger:

While the movement of carts and dollies by hand is very simple, it can result in injuries. Therefore, additional care shall be taken.

3.1.3.4. SAFELY DRIVING AND PARKING GROUND SUPPORT EQUIPMENT INSIDE THE EQUIPMENT RESTRAINT AREA

To verify the serviceability of GSE and test the apron surfaces, operators shall apply the following precautions when driving or parking GSE within the ERA:

a. Make one complete stop with all motorized GSE prior to entering the ERA or at 5 m from the aircraft. This action shall be carried out even if there is no equipment restraint line marked on the apron.
b. GSE shall not be driven faster than 5 km/h or 3 mph (walking speed).
c. Maneuver GSE carefully to prevent personnel injury and/or aircraft damage.
d. Avoid performing sharp turns near the aircraft, particularly when towing equipment.
e. When GSE/PBB is being moved near the aircraft or positioned to the aircraft, and when the vision of the operator is or might be restricted, the operator shall be:

f. Guided by a guide person using standard IATA signals. If visual contact with the guide person(s) is lost, the GSE operator shall stop movement of the GSE/PBB immediately. Movement shall not restart until visual contact is re-established, or
g. Assisted by means of appropriate proximity sensing and warning systems and/or visual aids such as cameras and mirrors.
h. GSE that is not directly involved in the handling or servicing of the aircraft shall not be driven through or parked within the ERA.
i. Any GSE (e.g., tractors, pallet transporters, carts and dollies) shall not be driven or positioned under the aircraft fuselage unless specifically required) e.g., lavatory servicing, aircraft maintenance, towbarless tractor etc.).
j. Driving or parking under the aircraft wings not permitted, see exception.

Exception: Due to aircraft type or local restrictions, exceptions may apply. Prior operator approval shall be given.

3.1.3.5. PASSENGER BOARDING BRIDGE

The operator of the PBB shall:

a. Be trained and authorized to operate the PBB.
b. Check that the PBB is serviceable before use.
c. Report any malfunction of the PBB to the appropriate person/authority.
d. Check that the walking surfaces are free of FOD, obstacles and safe for use.
e. Ensure only personnel required for the PBB operation are in the PBB while it is moving.

Danger:

There is a risk of fall from height and distraction to operator.

f. Ensure the PBB is fully retracted or parked in its safe designated parking position prior to aircraft arrival and departure.
g. Ensure the safety barrier shall be in place whenever the PBB is not at the aircraft.
h. Ensure that the movement path is clear of personnel, equipment/vehicles and all other obstacles before moving the PBB.
i. When positioning the PBB at the cabin access door and driver/operator vision is restricted, use a guide person.
j. Prior to positioning/removal, ensure that all safety rails/canopies on the PBB are fully retracted.
k. Move the PBB slowly toward the aircraft, avoiding any aircraft sensors or protrusions.
    1. Where the PBB is equipped with a self levelling device, continue movement until either the protective bumpers just touch the aircraft or the PBB's proximity sensors stop the movement.
    2. When not equipped with a self levelling device, maintain a gap in accordance with No-Touch policy. Refer to GOM 3.1.3.2 (s).

l. Ensure the PBB does not contact the wing root leading edge fairing that extends under certain cabin access doors or any other sensors or fairings.
m. Once the equipment is positioned, ensure any safety rails and canopies on the PBB are fully extended.
n. When positioning/removal is complete, secure/isolate the PBB controls to prevent movement by non-authorized persons.

o. Maintain adequate clearance between the PBB and the underside of the cabin access door, or as directed by the cabin access door markings to prevent damage. This reduces the possibility that the aircraft door will rest on the PBB as the aircraft settles during loading and unloading.
p. Engage any safety systems (e.g., safety shoe) and auto-leveler features, if applicable. If the PBB is not equipped with an auto-leveler, the PBB shall be attended by an operator whenever it is positioned at an aircraft.
q. Ensure the cabin access door is closed before removing the PBB.
r. Where integrated with the PBB, ensure ground power cables and PCA hoses are disconnected from the aircraft prior to moving the PBB, unless required for operational purposes.

3.1.3.6. PASSENGER STAIRS

The following precautions shall also be taken when operating passenger stairs:

a. Check that the walking surfaces are free of contamination and safe for use.
b. Ensure the movement path is clear of personnel, equipment/vehicles and all other obstacles before moving the passenger stairs.
c. If passenger stairs are towed, disconnect them from the tractor and manually position them at the aircraft. Ensure the brakes are engaged once stairs are positioned to the aircraft.
d. Ensure safety rails and canopies, if any, on the passenger stair platform are fully retracted prior to positioning.
e. Move the passenger stairs slowly toward the aircraft, avoiding any aircraft sensors or protrusions, and either:

1. Where the passenger stairs are equipped with a self levelling device, continue movement until the protective bumpers just touch the aircraft, or the passenger stair proximity sensors stop the movement.
2. When not equipped with a self levelling device, maintain a gap in accordance with No-Touch policy. Refer to GOM 3.1.3.2 (s).

f. The controls shall only be operated from inside the driver's cabin of the passenger stairs except where equipped with external controls.
g. Maintain adequate clearance between the passenger stairs and the underside of the cabin access door, or as directed by the cabin access door markings, to prevent damage.
h. Engage any safety systems and auto-leveler features, if applicable. If the passenger stairs are not equipped with an auto-leveler, the level of the passenger stairs shall be monitored and adjusted, as required.
i. Deploy stabilizers, if fitted. Do not allow anyone (except the operator) to use the stairs until the stabilizers are deployed.
j. Ensure passenger stairs are positioned so that the cabin access door can be used as an unobstructed escape route in case of emergency.
k. Passenger stairs shall not be removed from the aircraft unless the cabin access door is closed or a fall prevention device is in place across the access door. Refer to GOM 4.4.2.1 (b) .
l. After the cabin access door has been closed, confirm there are no personnel on the stairs prior to retracting stabilizers.
m. If passenger stairs are towed when removed from the aircraft, manually position them clear of the aircraft to a suitable position before connecting them to the tractor.

3.1.3.7. BELT LOADER

The following precautions shall also be taken when operating a belt loader:

a. Do not operate the conveyor belt or raise or lower the boom when personnel are on the belt.
b. Do not stand or walk on the conveyor belt when the safety rails are lowered.
c. Do not sit or stand on a conveyor belt while it is in operation, nor while the boom is raised or lowered.
d. Belt loaders shall not be used to transport baggage, cargo or other items across the ramp.
e. The boom of the belt loader shall never be positioned inside the cargo hold of any aircraft.

Exception:
The rule does not apply to specially designed belt loaders which require the equipment to be extended/positioned inside the cargo holds.

f. Position and remove a belt loader to/from the aircraft in a straight line.
g. Position the boom at an angle to the cargo hold doorsill that will:

1. Allow tractors/trailers to access the belt loader without impeding slide deployment areas and passenger evacuation routes.
2. Prevent items and personnel from falling between the boom and doorsill.

h. Once the belt loader is positioned ensure the wheels are left in straight ahead position.

Caution:

Speeding up operation of the conveyor belt using the accelerator pedal is not permitted.

i. Where clearance allows, always raise the side safety rail as soon as the belt loader is positioned. Ensure it does not touch the aircraft fuselage.

Caution:

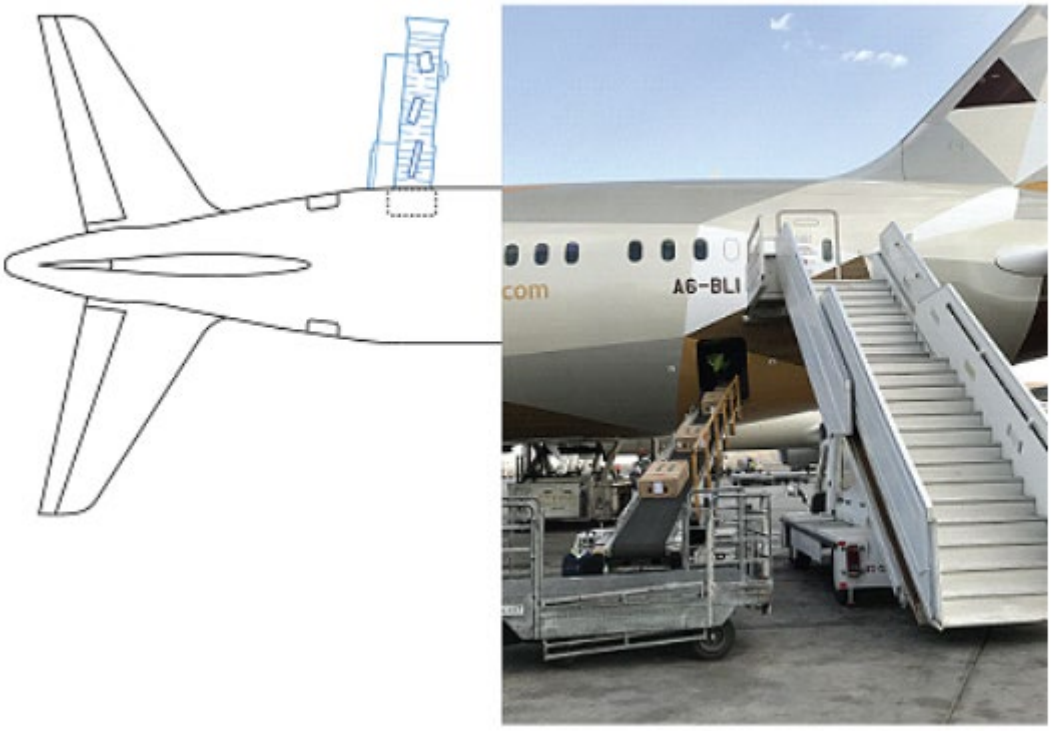
Care shall always be taken when working around a moving belt.

Personnel shall remain vigilant to trap hazards while raising/lowering the safety rails. Keep hands/fingers away from the edges/ends of the belt where they may become trapped.

Belt movement shall be stopped before any attempt to clear any obstructions.

j. The safety rail shall also be deployed when a belt loader is used to gain access to aircraft cargo holds or cargo hold access door controls.
k. Ensure proper separation between articles and appropriate belt speed to avoid jamming.
l. When unloading or loading items onto a belt loader, ensure they are stable, and correctly positioned on the conveyor belt to avoid items falling off.

m. When unloading or loading items between the belt and aircraft cargo hold, ensure items do not come into contact with aircraft fuselage/cargo hold door.
n. Adjust and control the back of the conveyor belt correctly to avoid dropping goods from the belt.
o. The safety rail may be lowered to accommodate large items during loading and unloading.
p. Ensure the boom is clear of the aircraft or other obstacles before making a turn.



3.1.3.8. UNIT LOAD DEVICE LOADER

The following precautions shall also be taken when operating a ULD loader:

a. Lower both platforms prior to maneuvering the ULD loader.
b. Only personnel required for the ULD Loader operation shall be on the platform while maneuvering.
c. Ensure that the ULD guide rails are in the proper position before positioning the ULD loader at the aircraft. Use ULD loader platform guide rails, as required, to ensure alignment when loading or unloading
d. Move the ULD loader slowly toward the aircraft, avoiding any aircraft sensors or wing fairings.
e. When approaching the aircraft and visibility is limited or the aircraft type has limited clearance with the ULD loader, a guide person shall be used.
f. Ensure the ULD loader is level with the height and angle of the cargo compartment floor.
g. Do not open/close cargo hold access doors while standing on a ULD loader. Use maintenance stairs in accordance with GOM 3.1.3.3 (m) or a belt loader in accordance with GOM 3.1.3.7.

Note: Not applicable to main deck cargo hold access doors, which shall be operated from inside (on applicable aircraft types) or from a Main Deck ULD Loader.

h. Engage any safety systems and auto-leveler features, if applicable. If the ULD loader is not equipped with an auto-leveler, the level of the ULD loader shall be constantly monitored and adjusted as required (e.g., edge of cargo hold opening, cargo hold access door, control panel doors, fairings on fuselage and wings).
i. The ULD loader front platform shall be fully lowered prior to personnel ascending or descending the equipment stairs and the platform shall not be raised or lowered when personnel are using the ladders. Always check the surrounding area and ensure it is clear to raise/lower the ULD loader platform.
j. Ensure no one stands between the ULD loader and dollies during ULD movement and during dolly positioning.
k. Align dollies correctly to the ULD loader. Use a guide person, if required.
l. ULD loaders should not be used to transport ULDs across the ramp unless specifically designed for this purpose.
m. Move ULDs only when personnel are clear of all hazards.
n. The vehicle (dolly or other) shall be positioned close to the ULD loader platform periphery and shall be at the same height before the transfer takes place.
o. The use of external mechanical force to move ULDs should not be necessary, except with very heavy ULDs that may not move by manual force alone. Any such process shall be carried out with approved equipment and procedures.
p. Whilst maneuvering the ULD when it is on the ULD loader, ensure:

1. The platform(s) is clear of all personnel.
2. All stoppers are raised to prevent ULD from falling.
3. Immediate area around the ULD loader is clear of all personnel and equipment.
4. ULD is only rotated on the rear platform and when in the fully lowered position.
5. Only one ULD is rotated at a time.

q. All personnel shall keep clear of the elevating platform when it is being raised or lowered.
r. Before removal or repositioning of a ULD loader ensure any load positioned in the doorway is secured against roll out.
s. For main deck loading/unloading operations, prior to removing the ULD loader the equipment operator shall inform personnel inside the main deck and receive confirmation from them that it is safe to remove the equipment. On board safety devices (e.g., safety barrier net) shall be installed at the cargo hold access door prior to ULD loader removal.
t. Whenever possible, reverse in a straight line at a walking pace, monitoring all sides for clearance.
u. Ensure the path of the ULD loader is clear of all obstructions prior to initiating turns.

Note: The ULD loader shall be positioned at a 90-degree angle to the cargo doorsill.

Danger:

Do not enter or place any part of the body inside the scissor area beneath the ULD loader.

3.1.3.9. ELEVATING EQUIPMENT

The following precautions shall also be taken when operating elevating equipment:

a. For elevating equipment with a rear access platform, ensure all safety barriers/rails are secured in place prior to vertical movement of the platform.
b. Ensure the load is properly secured (e.g., cart brakes, stretchers, wheelchairs) and all access doors and shutters are closed prior to raising or lowering the vehicle.
c. Any elevating equipment doors not being used for servicing at the aircraft shall be closed and latched.
d. The positioning of the elevating equipment shall allow the loading platform to be perpendicular and at the same level to the aircraft doorsill.
e. The final position of the elevating equipment shall allow for a safe working area and minimize the length of the walking surface between the aircraft and the elevating equipment while in the raised position.
f. Before accessing the platform at the front or the rear of the elevating equipment, ensure the platform is at the same level as the equipment cabin.
g. Carefully place the portable ramp/bridge on the doorsill from the platform side, as necessary.
h. Equipment (e.g., catering carts) and passengers in wheelchairs shall be pushed on and off the aircraft. Always ensure a hand-to-hand exchange. No elevating equipment is to be staged on the platform, and no loose items are to be transported on top of carts (e.g., catering equipment).
i. Continually observe and be aware of the clearance between the aircraft door and the elevating equipment platform.
j. When the servicing is finished, carefully remove the portable ramp/bridge from the platform side and stow securely. Close the cabin access door as per GOM 4.4.2.7 .
k. The passengers and/or load shall be secured properly inside the elevating equipment. Passengers shall be seated and wearing seat belts. Passengers seated in wheelchairs shall have the wheelchair secured during elevating equipment movement.
l. Visually check for any obstructions on both sides of the elevating equipment before lowering.
m. Lower the truck body to the fully lowered position.
n. Close and secure all the doors of the elevating equipment when the servicing is finished.
o. Perform a walkaround to check for FOD and clearance around elevating equipment stabilizers.
p. All elevating equipment shall stop operation when the wind speed reaches 40 knots (gusting).

Danger:

Do not enter or place any part of the body inside the scissor area beneath the elevating equipment.

3.1.3.10. TRACTOR/ELECTRIC BAGGAGE TUG

The following precautions shall also be taken when operating a tractor or electric baggage tug (EBT) and towing dollies/baggage carts:

a. Take care to avoid sudden sharp turns, jerks and stops.
b. Prior to moving with towed load, ensure there are no personnel between or near the towed load.
c. Baggage, cargo and other items shall only be transported on the tractor/EBT where the design of the equipment incorporates a designated location for the carry of such items.
d. Use the remote push button control (inching operation) to connect dollies, carts, or towed load, where fitted.
e. When Tractor/EBT is near the belt loader during aircraft handling, a gap of at least 1 m (3 ft.) shall be maintained.

Note: When necessary to position carts/dollies within 1 m (3 ft.) of the belt loader, adjust the position of the carts/dollies by hand.

f. When removing carts during the loading on or unloading from smaller aircraft or aircraft with low wings, the tractor shall be positioned pointing away from the aircraft wing and the cart maneuvered by hand to the tractor, as required.
g. The appropriate type of dolly shall be used according to the ULD type to transport the load.
h. Keep an appropriate distance between dolly and ULD loader during loading and unloading process. To avoid ULD falls, realign the dolly if the distance between ULD loader and dolly is unsafe.
i. Ensure ULD is fully transferred onto the ULD loader before moving the Tractor/EBT.
j. Ensure all the ULDs are secured on the dollies and flaps, or curtains are closed before transporting.

3.1.3.11. ULD TRANSPORTER

a. The following precautions shall also be taken when operating ULD transporters:
b. No personnel are allowed to sit or stand on the roller bed.
c. No personnel are allowed to walk or stand between the ULD transporter and ULD loader/dollies.
d. Position the ULD transporter at a 90-degree angle to the ULD loader/dolly to ensure safe transfer of load.
e. If fitted with an elevating platform (narrow body ULD Loader):
1. Transportation of ULDs across the ramp with the platform in the raised position is not permitted.
2. Raise the platform only when finally positioned at the aircraft.

Note: For combined ULD transporter/loader devices, refer to GOM 3.1.3.8 for further precautions.

3.1.4. FIRE

3.1.4.1. FIRE PREVENTION AND PROTECTION

Personnel must always be vigilant for fire hazards and potential sources of fires in their areas of operation and try to mitigate or eliminate them during the operations (e.g., fueling and defueling operations, open wires, dangerous goods handling, GPU connections and use of electrical equipment). To eliminate conditions that may lead to fire:

a. Personnel must never smoke airside except in a designated smoking area.
b. All personnel shall be familiar with the location and use of firefighting equipment, fire alarms, fuel hydrant emergency shut-off valve, etc.
c. All personnel must be familiar with assembly points.
d. Emergency exits must be kept clear/unobstructed at all times.
e. Exercise good housekeeping in the airside areas to eliminate the risk of fire.
f. Dispose of garbage into the designated waste bin and do not allow garbage to accumulate.
g. All fuel/oil leakages must be contained as soon as possible, and the area cordoned off. (e.g., using safety cones, caution tape).
h. Smoke from GSEs/vehicles must be reported immediately.
i. Do not refuel any GSE/equipment while the engine is running any GSE/equipment while the engine is running or while using electronic devices.
j. GSEs/vehicles should only be parked as follows:

1. Within the defined equipment parking areas;
2. In a manner that does not obstruct access to firefighting equipment and the fuel hydrant emergency shut-off valve.

3.1.4.2. ACTIONS IN THE EVENT OF FIRE

a. In the event of a fire, carry out the immediate actions specified in GOM 6.5.2 .
b. In event of GSE/vehicle fire, additionally, carry out an assessment and only if considered safe to do so:

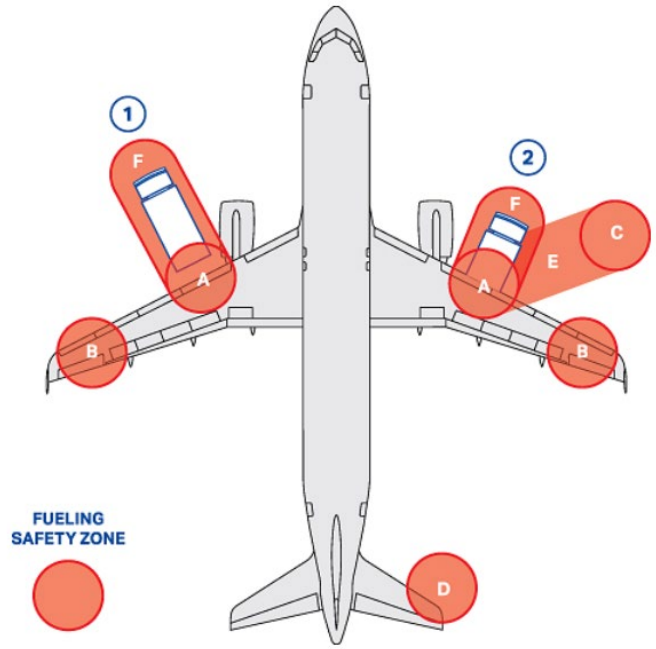
1. Fight the fire using available fire extinguishers.
2. Move affected GSEs/vehicles away from the aircraft and operational area to the extent practical.
3. In case the affected GSEs/vehicles cannot be moved, move adjacent GSEs/vehicles away to avoid spreading the fire.

3.2. SAFETY DURING FUELING AND DEFUELING

3.2.1. FUELING SAFETY ZONES

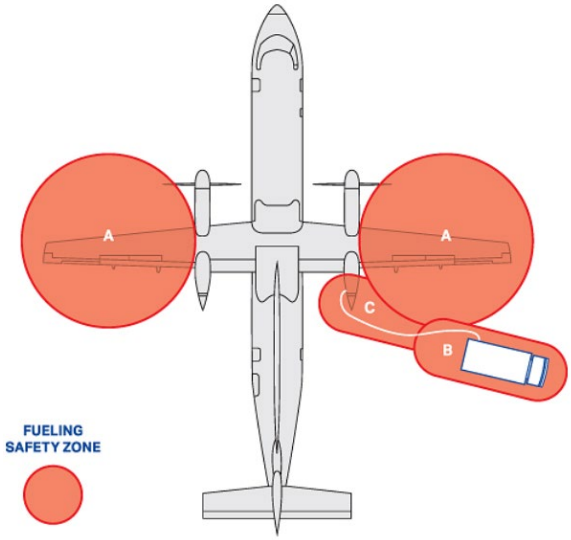
The fueling safety zone (FSZ) is defined as an area of at least 3 m (10 ft.) in any direction from the center point of all fuel vent exits, refueling plugs, aircraft refueling ports, fuel hydrants, fuel hoses and fueling vehicles. This distance may be increased as required by local airport or civil aviation authorities.

EXAMPLE OF FUELING SAFETY ZONE–JET AIRCRAFT



REFERENCE	DESCRIPTION
A	Aircraft refueling port/plug
B	Fuel vent exit
C	Fuel hydrant pit
D	Fuel vent exit (according to the aircraft type)
E	Hoses
F	Fuel truck or hydrant dispenser
1	Fuel truck
2	Hydrant dispenser

EXAMPLE OF FUELING SAFETY ZONE–PROPELLER AIRCRAFT



REFERENCE	DESCRIPTION
A	Aircraft refueling port/plug/fuel vent exit
B	Fuel truck or hydrant dispenser
C	Hoses

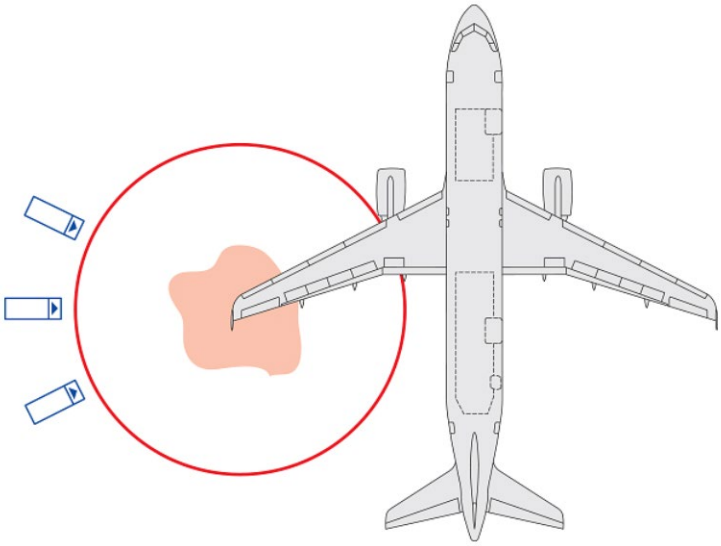
Within the FSZ, all personnel shall ensure they:

a. Do not smoke.
b. Do not use any handheld PEDs, including cellphones, portable music players, portable game units or earpiece or headset.
c. Enter the FSZ only when required to do so by the current job task/responsibility.
d. Assume that fueling is taking place anytime a fuel vehicle is on the stand during aircraft servicing and fuel hoses are connected.
e. Do not leave vehicle engines running unnecessarily.
f. Position all GSE and vehicles so they do not obstruct the fueling vehicle's escape route; this is not a mandatory requirement for hydrant type fueling vehicles, but every effort should be made to ensure a clear exit pathway.
g. Do not allow any passengers to enter the FSZ.
h. Avoid the use of motorized GSE in the FSZ.
i. Do not park any GSE in the FSZ.
j. Ensure fuel hoses are protected and all equipment is kept a minimum of 1 m (3 ft.) away from any fuel hose on the stand that is connected between a fuel truck and an aircraft.

3.2.2. FUEL SPILLAGE

Take the following safety measures whenever a fuel spill occurs:

a. Activate the emergency shut-off valve, where installed.
b. Alert the person in charge of fueling and/or the pilot-in-command.
c. Contact the local fire service, if not already done.
d. Verify with authorities/supervisor whether to stop all activity around the aircraft.
e. As far as possible, restrict all activities inside and outside the spill area to prevent access and to reduce the risk of ignition.



3.2.3. FUELING/DEFUELING WITH PASSENGERS ON BOARD

When fueling/defueling with passengers on board and/or during their boarding or disembarking, personnel shall:

a. Keep designated escape exits clear. An escape exit may be either a PBB into a terminal building, a cabin access door or a passenger stair truck positioned on an open cabin access door.
b. Ensure all areas on the stand below the designated escape exits are kept free of any equipment and vehicles that would impede the deployment of an escape slide.
c. Do not hinder the escape routes of passengers on board by ensuring that passenger stairs and PBB are clear of FOD.

Note: Refer to operating airline procedures regarding fueling as well as local airport and regulatory requirements. The above is applicable as a minimum standard.

3.3. ADVERSE WEATHER CONDITIONS

3.3.1. ADVERSE WEATHER CONDITIONS – GENERAL

Airside operational personnel should use the following 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.

3.3.2. WINTERY OR SLIPPERY APRON CONDITIONS

Winter weather brings extra hazards, which require awareness and more care on the part of personnel working on the apron to prevent accidents. The following precautions to reduce accident risk shall be taken:

a. Plan additional time for all ramp activities and take extra care when walking across apron surfaces, which can be slippery.
b. Take extra care when driving, especially when approaching the aircraft. Remember that GSEs require greater distances to stop safely on slippery surfaces.
c. Operators of potable water tankers and toilet servicing units shall be vigilant to ensure that there is no spillage or leakage that can lead to subsequent freezing. Care shall be taken to keep spillage and overflow to a minimum.
d. If apron conditions are hazardous, contact the competent authority to mitigate the hazard. In the event the hazard cannot be mitigated, suspend the affected operations.
e. Close all entrance and cargo hold doors as soon as possible and keep them closed to avoid precipitation entry into the aircraft. In case of use of cooling/heating units and pre-conditioned air, refer to GOM 4.1.4.2 .
f. Ensure that the aircraft parking stand, particularly the ERA, is sufficiently free of ice, snow, etc. to provide a safe working area during all ramp handling activities, including the aircraft arrival or departure operations.
g. Remove snow and ice from equipment and work surfaces prior to the start of operations.

Caution:

Reduce speeds in slippery apron conditions. Adjust all activities and operations on the ramp to suit the conditions at the time.

3.3.3. THUNDERSTORMS AND LIGHTNING

3.3.3.1. WORK INSTRUCTIONS DURING THUNDERSTORMS AND LIGHTNING

On receipt of an ALERT:

a. Make preparations for the STOP phase.

1. Suspend nonessential activities in open areas and ensure all personnel using or about to use headsets are informed of the alert.
2. Fueling operations can continue, however, the proximity of the thunderstorm/lightning should be continually monitored.
3. Avoid using highly conductive equipment.

On receipt of a STOP order:

1. Stop fueling and detach hoses from aircraft. Fueling hoses cannot be left attached to the aircraft during any thunderstorm/lightning event.
2. Discontinue aircraft communication by headset.
3. Stop all ramp activity and clear ramp.
4. Personnel should seek shelter inside buildings or metal-bodied vehicles. No one should seek shelter under any part of the aircraft, loading bridge, near light poles, fences, under trees.
5. In accordance with local procedures, aircraft may come on the stand, but the aircraft doors should remain closed and ground servicing suspended.

Danger:

Failure to follow procedures could result in a fatal accident.

LEVELS	ACTION
Amber–ALERT Lightning activity is detected at a distance in excess of 8 km (5 miles) from the operation.	Disseminate a lightning warning to airside operating personnel so they can prepare and plan their activities to be ready in case of a Red Alert in accordance with local regulatory requirements.
Red–STOP/SUSPEND Lightning activity is detected within 5 km (3 miles) of the operation.	Disseminate the order to stop all airside activities and seek shelter to all airside operating personnel.
Green–ALL CLEAR Lightning activity has moved beyond 5 km (3 miles) and is heading away from the operation.	Disseminate the order to resume normal activities to all airside operating personnel.

Note: The distances referred to above may vary depending on local climatic parameters.

3.3.3.2. LIGHTNING ALERT CALLOUT

In the absence of an integrated airport notification system, all airside operating personnel shall be aware of the following procedures:

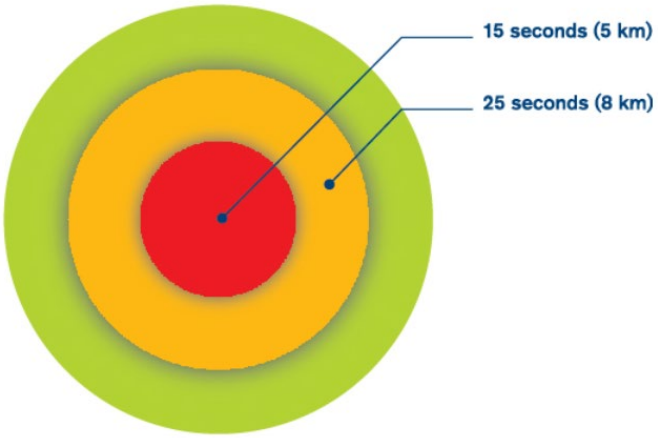
a. Use the counting method to detect/predict lightning activity. Determine the corresponding level based on the counting method diagram; see GOM 3.3.3.3 .

b. The responsible person notifies all airside operating personnel of the lightning alert level. If the person responsible is not available, the counting method should be used by all airside operating personnel for self-protection.
c. In case of a Red Alert, proceed to a designated shelter.

3.3.3.3. COUNTING METHOD

The counting method is used when an integrated airport notification system is absent. It is used to estimate the level of lightning activity.

Counting Method Chart:



Notes:

1. The time indicated is the time between observing the lightning and hearing the sound of thunder.
2. If the counted time is less than 15 seconds, the lightning activity is less than 5 km from the airport.
3. If the counted time is between 15 seconds and 25 seconds, the lightning activity is between 5 and 8 km from the airport.

3.3.4. HIGH WIND CONDITIONS

High winds pose a great risk of damage, and the following minimum precautions should be taken:

a. Ensure the safety of the aircraft by installing additional chocks and removing all equipment from around the aircraft.
b. Take extreme care when opening or closing any aircraft doors.
c. Ensure parking brakes are set on all parked GSE.
d. Set parking brakes and secure by additional means, if necessary, all non-motorized ramp GSE (i.e., baggage carts, ULD dollies).

3.3.5. HIGH WINDS ACTIVITY TABLE

The following actions shall be taken when sustained winds and/or gusts of wind at 25 knots (kts) or greater are predicted. However, it is the actual wind speed at the aircraft parking position that constitutes the risk of injuries and damage.

Personnel Actions	25 to 39 kts (46 to 72 km/h)	40 to 59 kts (73 to 110 km/h)	Above 60 kts (111 km/h)
Chock aircraft landing gear as per Aircraft Out of Service/Night Stop/High Wind; see GOM 4.2.2 .	✓	✓	✓
Remove safety cones	✓	✓	✓
Secure PCA hoses	✓	✓	✓
Remove FOD	✓	✓	✓
Secure ULDs	✓	✓	✓
Secure rolling stock	✓	✓	✓
Strap all propellers on propeller aircraft	✓	✓	✓
Secure PBB and position to minimize surface exposed to the direct force of the wind		✓	✓
Close cargo hold, cabin access doors and access panels		✓	✓
Do not initiate the elevation of high-lift equipment and stairs		✓	✓
Park GSE closely together and adjacent to a building, if possible			✓
Retract PBB			✓

Danger:

High winds pose a great risk of damage and injury.

3.3.6. SANDSTORMS AND LOW VISIBILITY

The following minimum precautions should be taken:

a. Issue appropriate PPE such as goggles, masks and covered clothing.
b. Ensure the provision of shelter, as required.

3.3.7. INTENSE HEAT

The following minimum precautions should be taken:

a. Issue appropriate PPE (i.e., covered clothing).
b. Ensure the provision of rehydration for personnel.
c. Ensure the provision of a temperature-controlled environment during rest breaks.

3.4. HAND SIGNALS

3.4.1. HAND SIGNALS INTRODUCTION

To standardize ground-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:

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. Marshaling Hand Signals–to be used by ground personnel to assist the flight crew during maneuvering 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.

Notes:

1. Only use hand signals when verbal communication is not possible.
2. Ensure acknowledgement of all signals is received.

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.

3.4.2. GENERAL CONDITIONS FOR USING HAND SIGNAL

The person giving the hand signals shall:

a. Use only approved hand signals.
b. Wear a high visibility vest.
c. Maintain the same role throughout the procedure.
d. Keep in constant visual contact with the other ground personnel and flight crew throughout the maneuver. If visual contact is lost, the operation must stop and not recommence when visual contact is reestablished.
e. Remain clear of the intended pathway of the vehicle/aircraft, where possible.

3.4.3. SPECIFIC REQUIREMENTS FOR USING MARSHALLING HAND SIGNALS

a. Perform aircraft marshaling only if permitted by the local airport authority and personnel have been trained and authorized.
b. Give marshaling hand signals from a position in front of the aircraft when facing and within view of the flight crew.
c. Wear a high visibility vest.
d. Use illuminated flashlights/wands to improve the visibility of the hand signals in the following situations:

1. Insufficient apron lighting
2. Poor visibility
3. Night conditions
4. When required by local airport authorities or regulations
5.

Caution:

To avoid any possible confusion by the flight crew, do not use guide person hand signals for equipment until all aircraft marshaling has been completed.

Notes:

1. The hand signals on the following pages are illustrated with the use of wands. The meaning of the signals remains the same when bats, gloves or illuminated flashlights are used.
2. It is not possible to give signals for engaging/releasing parking brakes with the use of bats or illuminated flashlights.

3.4.4. GUIDE PERSON HAND SIGNALS FOR GROUND SUPPORT EQUIPMENT

3.4.4.1. TO ATTRACT THE OPERATOR´S ATTENTION AND TAKE COMMAND

Arms held above the head in a vertical position with palms facing forward.

Meaning: I am in charge of this maneuver. You will take orders only from me.

3.4.4.2. FORWARD MOVEMENT

Arms held above the head with elbows a little bent and palms facing backward; repeatedly move arms upward and backward, beckoning onward.

Meaning: Move toward the guide person.

3.4.4.3. BACKWARD MOVEMENT

Arms by the sides, palms facing forward, swept forward and upward repeatedly.

Meaning: Move directly away from the guide person.

3.4.4.4. TURN RIGHT (FROM THE DRIVERS POINT OF VIEW)

Left arm pointed downward, hand extended; right arm repeatedly moved upward and downward toward the guide person's left. Speed of arm movement indicates rate of turn.

3.4.4.5. TURN LEFT (FROM THE DRIVERS POINT OF VIEW)

Right arm pointed downward, hand extended; left arm repeatedly moved upward and downward toward the guide person's right. Speed of arm movement indicates rate of turn.

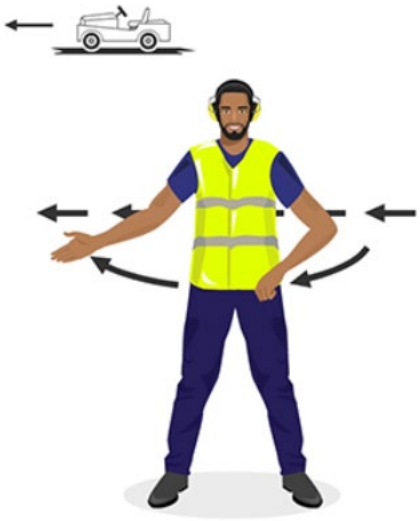
3.4.4.6. LIFT

Stretch both arms toward load and/or equipment, palms up, hand movement in upward direction.

3.4.4.7. LOWER

Stretch both arms toward load and/or equipment, palms down, hand movement in downward direction.

3.4.4.8. ACCOMPANIED MOVEMENT



Come with load or equipment. Maintain eye contact with operator/driver. Swing down opposite arm.

3.4.4.9. INDICATE DISTANCE

Raise arms above head, palms facing inward. Distance shown between hands shall correspond exactly with actual margin.

3.4.4.10. STOP

Arms raised and crossed over head, palm forward.

Immediate stop: Hands cross over head with clenched fists.

3.4.4.11. OK

Lift right arm above head, hand closed, thumb raised.

Meaning: All is clear or continue on your own or drive away.

3.4.4.12. CHOCKS INSERTED, STABALIZERS ON

Arms down, hands closed, palms facing backward, thumbs extended; move arms in toward sides.

3.4.4.13. CHOCKS REMOVED, STABALIZERS OFF

Arms down, hands closed, palms facing forward, thumbs extended; move arms out away from sides.

3.4.4.14. TO INTERRUPT POWER SOURCE (ELECTRICITY, FUEL, AIR)

Right arm and hand level with shoulder, palm downward; swing extended arm horizontally toward throat by bending elbow.

3.4.4.15. STOP ENGINE

Right arm and hand level with shoulder, palm downward, hand on throat making horizontal move to the right, passing hand across throat.

3.4.4.16. TO CONNECT OR DISCONNECT

Raise left arm and hand in front of body, fingers extended horizontally, palm down.

Connect: Right hand with clenched fist moving upward to contact left palm

Disconnect: Right hand with clenched fist leaving left palm downward.

3.4.4.17. BRAKES ON/OFF

Right arm and hand raised horizontally in front of body.

Release brakes: With fist clenched, extend fingers, palm inward.

Engage brakes: With extended fingers, clench fist, palm inward.

3.4.5. AIRCRAFT MOVEMENT HAND SIGNALS- HEADSET OPERATOR TO TRACTOR DRIVER

3.4.5.1. VEHICLE BREAKS OFF

Raise right hand just above shoulder height with closed fist and ensuring eye contact with driver open palm toward driver.

3.4.5.2. CLEAR TO PUSH

Hold arm straight out at a 90° angle from shoulder and display hand with thumb up.

Meaning: Indicates to tractor driver that all equipment is clear of aircraft, chocks have been removed, the aircraft brakes are off and flight crew has given clearance to commence pushback.

3.4.5.3. NEGATIVE/HOLD

Hold arm straight out at 90° angle from shoulder and display hand with thumb down.

Meaning: Indicates to tractor driver that aircraft is not ready for pushback and to hold position

3.4.5.4. VEHICLES BREAKS ON/STOP

Raise hand just above shoulder height with open palm and, ensuring eye contact with the tractor driver, close into a fist. At the end of the pushback, also indicates to tug driver that aircraft brakes have been set. The tractor driver should return the signal to the headset operator to confirm vehicle brakes set.

3.4.5.5. SLOW DOWN

With hand at a 45° angle downward to the side, make a patting motion.

3.4.5.6. CHANGE OF PUSHBACK DIRECTION

Touch nose with finger with arm at a 90° angle to the shoulder, extend arm to point in the direction that aircraft needs to be turned to

3.4.6. AIRCRAFT MOVEMENT HAND SIGNALS- WING WALKER TO HEADSET OPERATOR, TRACTOR DRIVER, MARSHALLER, FLIGHT CREW (AS APPLICABLE)

3.4.6.1. CLEAR TO MOVE AIRCRAFT (NOT APPLICABLE)
3.4.6.2. STOP MOVEMENT OF AIRCRAFT (NOT APPLICABLE)
3.4.6.3. HOLD MOVEMENT OF AIRCRAFT (NOT APPLICABLE)

3.4.7. MARSHALLING HAND SIGNALS FOR AIRCRAFT (AS APPLICABLE)

3.4.7.1. IDENTIFY GATE/STAND (NOT APPLICABLE)
3.4.7.2. CONTINUE TO TAXI STRAIGHT AHEAD (NOT APPLICABLE)
3.4.7.3. SLOW DOWN (NOT APPLICABLE)
3.4.7.4. TURN RIGHT (NOT APPLICABLE)
3.4.7.5. TURN LEFT (NOT APPLICABLE)
3.4.7.6. STOP (NOT APPLICABLE)
3.4.7.7. HOLD POSITION/STAND-BY (NOT APPLICABLE)
3.4.7.8. PROCEED TO NEXT MARSHALLER OR AS DIRECTED BY TOWER (NOT APPLICABLE)
3.4.7.9. DISPATCH AIRCRAFT (NOT APPLICABLE)

3.4.7.1. FIRE

Holding right arm straight, move right hand in an exaggerated figure eight (8), or a fanning type motion, from the shoulder to the knee, while at the same time pointing with the left-hand wand to the area of the fire.

3.4.7.2. SET BRAKES

Refer to GOM 3.4.5.4. and 3.4.4.17.

3.4.7.3. RELEASE BREAKS

Refer to GOM 3.4.5.1. and 3.4.4.17.

3.4.7.4. CHOCKS INSERTED

Refer to GOM 3.4.4.12.

3.4.7.5. CHOCKS REMOVED

Refer to GOM 3.4.4.13.

3.4.7.6. START ENGINES

Raise right arm to head level with wand pointing up and make a circular motion with hand; at the same time, with the left arm raised above head level, point to the engine to be started.

3.4.7.7. EMERGENCY ENGINE SHUT DOWN/CUT ENGINES

Extend right arm with wand forward of body at shoulder level, move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat. Hold left arm above head with closed fist.

3.4.8. TECHNICAL/SERVICING HANDSIGNALS-GROUND PERSONAL TO FLIGHT CREW

3.4.8.1. CONNECT TOWBAR

Bring arms above head and grasp forearm with opposite hand.

3.4.8.2. AIR UP

Wave arms up and down from thigh to waist with palms up.

Meaning: Supply pressurized air for engine start.

3.4.8.3. CONNECT/DISCONNECT GROUND POWER

Connect: Hold arms fully extended above head; open left hand horizontally and move fingertips of right hand up to touch open palm of left hand (forming a "T"). At night, illuminated wands can also be used to form the "T" above the head

Disconnect: Hold arms fully extended above head with fingertips of right hand touching open horizontal palm of left hand (forming a "T") and lower right hand away from the left.

DO NOT disconnect power until authorized by the flight crew. At night, illuminated wands can also be used to open the "T" above the head.

3.4.8.4. AFFIRMATIVE/ALL CLEAR

Raise right arm to head level with wand pointing up or display right hand with thumbs up; left arm remains at side by knee.

3.4.8.5. NEGATIVE

Hold right arm straight out at 90° from shoulder and point wand down to ground or display right hand with thumbs down; left hand remains at side by knee.

3.4.8.6. INTERPHONE

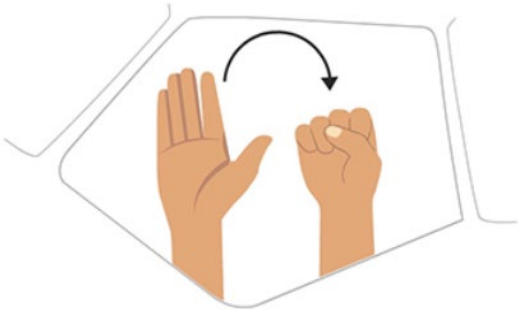
Extend both arms at 90° from body and move hands to cup both ears.

3.4.8.7. DO NOT TOUCH CONTROLS (NOT APPLICABLE)

3.4.8.8. OPEN/CLOSE STAIRS (NOT APPLICABLE)

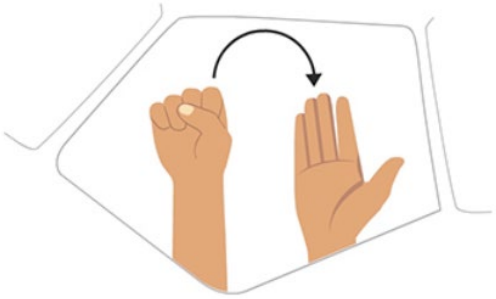
3.4.9. TECHNICAL/SERVICING HANDSIGNALS-FLIGHT CREW TO GROUND PERSONNEL

3.4.9.1. BRAKES ENGAGED



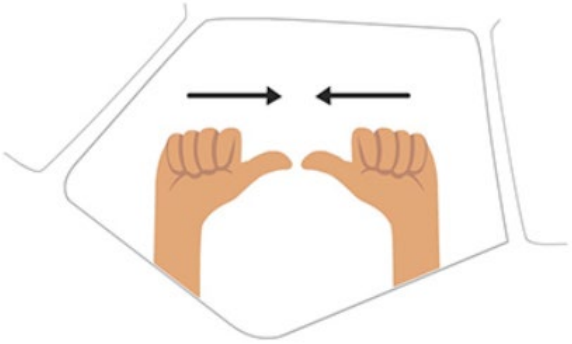
Raised arm and hand with palm facing forward and fingers extended in front of face and close hand into a fist.

3.4.9.2. BRAKES RELEASED



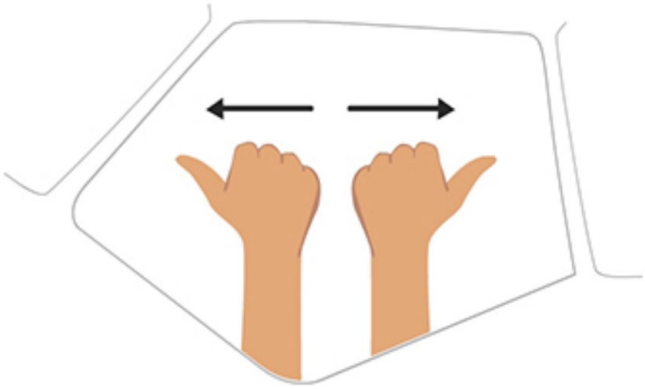
Raised arm with fist clenched in front of face; extend fingers to open palm facing forward.

3.4.9.3. INSERT WHEEL CHOCKS



Hands held in front of face, palms facing forward with fingers closed and thumbs extended; move hands inward.

3.4.9.4. REMOVE WHEEL CHOCKS



Hands held in front of face, palms facing backward with fingers closed and thumbs extended; move hands outward.

3.4.9.5. READY TO START ENGINE(S)

One hand raised with the appropriate number of fingers outstretched to indicate the number of the engine to be started.

3.4.9.6. ALL CLEAR

One hand raised with closed fingers and thumb extended. Acknowledgement of all ground actions.

3.5. TOILET SERVICING (NOT APPLICABLE)

3.6. POTABLE WATER SERVICING (NOT APPLICABLE)

3.7. AIRCRAFT CLEANING AND DISINFECTION (NOT APPLICABLE)

3.8. SAFETY DURING AIRCRAFT DE-ICING/ANTI-ICING (NOT APPLICABLE)

4 AIRCRAFT TURNAROUND

4.1. AIRCRAFT ARRIVAL

4.1.1. ACTIONS PRIOR TO AIRCRAFT ARRIVAL

a. Ensure all persons involved with the aircraft arrival and post-arrival handling/servicing are briefed on safety and operational requirements relevant to their functions, e.g., aircraft defects that may affect ground handling operations, specific unloading, equipment positioning and operating requirements.
b. Conduct a foreign object debris (FOD) check of the entire stand, removing all debris just prior to aircraft arrival.
c. Make sure the stand surface condition is sufficiently free of ice, snow, etc. to ensure safe aircraft movement.
d. Make sure all required ground support equipment (GSE), chocks and safety cones are available and serviceable, and are positioned well clear of the aircraft path, outside the equipment restraint area (ERA).
e. Make sure the aircraft guidance docking system is activated, where applicable, or a marshaller is in position. Where an aircraft docking guidance system is in use, ensure it is operative and only activated when it is confirmed that conditions are safe to accept the aircraft. See GOM 4.1.2(b) for Wing Walker positioning for Aircraft Arrival.
f. Make sure required ground personnel are present including any additional personnel (i.e., wing walker), if applicable. See GOM 4.1.2 (b) for wing walker positioning during aircraft arrival.
g. All personnel shall remain well clear of the arriving aircraft and its maneuvering path, outside the ERA, other than those whose functions require them to be inside the ERA during aircraft arrival, e.g., marshaller(s) and/or wing walker(s). See GOM 4.1.3 for requirements/clearance for personnel to approach the aircraft.

4.1.2. ACTIONS DURING AIRCRAFT ARRIVAL

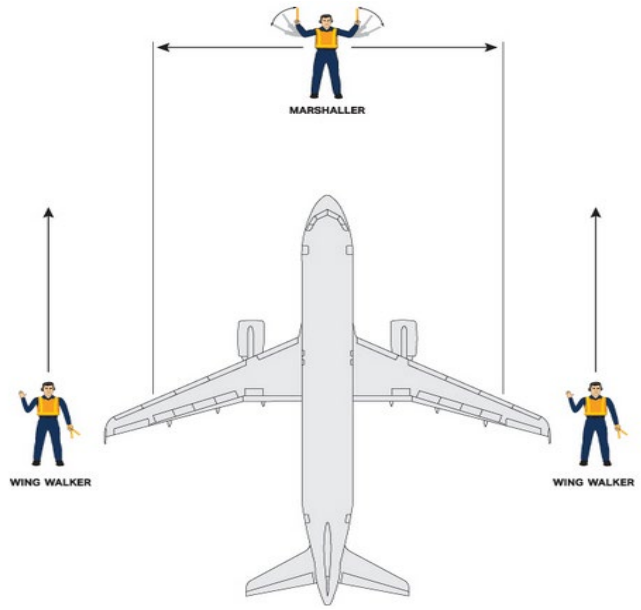
a. For a standard arrival at a stand without an automated guide-in system or at an open ramp:

1. As the aircraft approaches the stand area, the marshaller points to the guide-in line on the ramp to be followed by the aircraft by standing at the top of the guide-in line and giving the "Identify Gate/Stand" signal. Wing walkers, if required, will be positioned approximately 1 m (3 ft.) outside the path of the wingtips. Wing walkers shall maintain visual contact with the marshaller until the aircraft has come to a complete stop. See diagram in GOM 4.1.2 for positioning of wing walker during aircraft arrival on stand.

2. While the aircraft taxies along the guide-in line, the marshaller gives the "Continue to Taxi Straight Ahead" signal with marshalling wands.
3. The nose wheel should follow the guide-in line all the way to the appropriate stop point. Use the "Turn Left (from the flight crew's point of view)" or "Turn Right (from the flight crew's point of view)" signals to correct the track of the aircraft as required.
4. If at any time during the aircraft movement the marshaller is unsure or identifies an imminent danger, signal the aircraft to "STOP"
5. If at any time during the aircraft movement the wing walkers are unsure or identify an imminent danger, signal the marshaller with the "STOP" signal.
6. As the aircraft approaches the stop position, use the "Slow Down" signal, if required. As the nose wheel reaches the stop point, slowly cross the wands in the "STOP" signal.

b. For a standard arrival at a stand with an automated guide-in system:

1. The ground personnel responsible for aircraft arrival operations shall verify that the correct aircraft has been selected for the arrival and the equipment is operational.
2. The agent responsible for staffing the emergency stop button shall be positioned with an unobstructed view of the arriving aircraft and within reach of the system to stop the aircraft in the event it is needed. It is essential to maintain a continuous unobstructed view between the agent responsible for staffing the emergency stop button and the ground personnel ensuring clearance (e.g., wing walker).
3. If the emergency stop is activated, and only after verification by the ground personnel operating the guidance system that the risk is no longer there, the aircraft docking guidance system can be reactivated. If not, standard aircraft arrival procedures shall be used.
4. Wing walkers, if required, will be positioned approximately 1 m (3 ft) outside the path of the wingtips. Wing walkers shall maintain visual contact with the agent responsible for the aircraft arrival operations until the aircraft has come to a complete stop. See diagram in Figure 4.1.2 for positioning of wing walker during aircraft arrival on stand.



4.1.3. ACTIONS AFTER AIRCRAFT ARRIVAL

a. Upon aircraft stopping:

1. Position wheel chocks at the nose landing gear (NLG) wheels as per GOM 4.2.1 .
2. Position and connect the ground power unit (GPU) or fixed power unit (FPU), if required, before engine shutdown in accordance with GOM 4.1.4.1 .

b. After the engines have been shut down, are spooling down, and anti-collision lights have been switched off:

1. The person responsible for arrival operations shall give clearance for placement of the remaining wheel chocks and safety cones.
2. Remaining wheel chocks shall be placed in accordance with GOM 4.2.1, and verbal/visual confirmation shall be given to the flight crew.
3. If applicable, the passenger boarding bridge (PBB), shall be positioned onto the aircraft after an inspection has been carried out to confirm there is no damage to the cabin access door and surrounding area.
4. Safety cones shall be placed in accordance with GOM 4.3.1 . After placement, GSE may enter the ERA to approach the aircraft.

Note 1: Positioning of GSE at its final servicing position shall only take place after inspection of the door/service panel and surrounding area where the GSE shall position, and clearance given.

Note 2: Spooling down of an engine can be identified as follows: reduced engine noise, visible fan or propeller speed reduction, lack of exhaust heat or thrust plume.

c. Before positioning GSE, conduct an arrival walkaround to inspect for damage to the following parts of the aircraft:

1. All cargo hold access doors
2. All access panels and servicing access points
3. Aircraft fuselage
4. Aircraft engine cowlings/propellers
5. All cabin access doors, including service doors.

d. Give clearance for GSE to position at the aircraft.

Note: If any damage is found, report it immediately to a supervisor and do not approach the aircraft with any GSE in the area where the damage has been found.

Danger:

If notified of a brake overheat, do not approach the main gear.

Caution:

If an aircraft arrives with an unserviceable anti-collision light, do not approach the aircraft until headset communication has been established with the flight crew.

4.1.4. GROUND SUPPORT EQUIPMENT FOR ARRIVING AIRCRAFT

4.1.4.1. GROUND POWER UNIT AND FIXED POWER UNIT

a. It is permitted to pre-position a Ground Power Unit (GPU) inside the ERA, provided there is a marked GPU parking position.
b. Position the GPU on the appropriate side of the aircraft as shown in Figure 4.1.4.1 (example of GPU positioning).
c. Set the parking brake/chock for the GPU.
d. Ensure the GPU, while in operation, is positioned a minimum of 3 m (10 ft.) from any fueling vehicles and aircraft fuel vent exits.
e. Fixed Power Unit (FPU) and leads shall be fully stowed/retracted during aircraft arrival as per the system design.
f. Only connect GPU(s)/FPU(s) if required/requested by the operating airline.
g. Before connecting to the aircraft, check the aircraft receptacles, lead(s) and plug(s) to ensure they are clean and undamaged, with no sign of excessive wear or electrical burning to the contacts.
h. Do not energize the GPU/FPU power output until the unit is connected to the aircraft.
i. Connect the external power sources according to operating airline procedures, including the number of supplies, required output, sockets to be used, etc. Advise the flight crew of any discrepancies.
j. Attach the power lead lanyards to the aircraft attachment point, where fitted.
k. Request approval from flight deck before turning off and disconnecting the GPU/FPU cables.
l. Turn off the GPU/FPU power output before disconnecting the cable(s).
m. Always disconnect and stow the GPU power cables BEFORE connecting a tow tractor to the GPU.

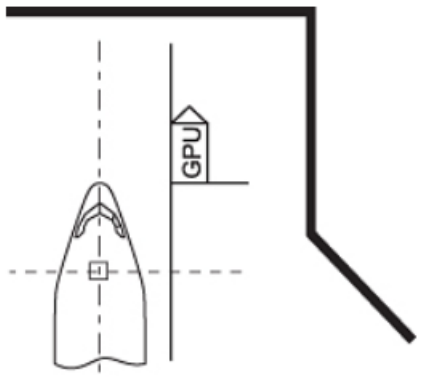


Figure 4.1.4.1—Sample GPU positioning

4.1.4.2. COOLING/HEATING UNITS AND PRECONDITIONED AIR

Danger:

Before supplying air from an external source, make sure at least one cabin access door is open and remains open during air unit operation, as per operating airline procedures.

Make sure a motorized ground air supply unit is not near the aircraft. The engine exhaust pipe of the unit shall point away from the aircraft. Heat from the unit's exhaust can cause damage to the aircraft structure.

As part of the fuel conservation program of most airlines, preconditioned air (PCA) is required at all airports that provide on-stand PCA.

Refer to the operating airline's instructions for the location of the PCA access panel, specific flow rate and pressure requirements on the specific aircraft type. If required in accordance with operating airline procedures, inform the flight crew or engineer before connecting or disconnecting PCA to/from the aircraft.

Note: Make sure there is no blockage of the PCA hose.

a. To connect PCA:

1. Open the access panel.
2. Connect the ground PCA unit to the aircraft.
3. Start up the ground PCA unit.
4. On the ground PCA unit, select the desired cooling or heating settings (air temperature and flow rate) and position the selector in the appropriate position.

b. To disconnect PCA:

1. Shut down the ground PCA unit.
2. Disconnect the ground PCA unit from the aircraft.
3. Close the access panel.
4. Retract the PCA hose to the fully stowed and secured position.

4.2. AIRCRAFT CHOCKING

4.2.1. WHEEL CHOCK PLACEMENT

a. Make sure 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. Wait for aircraft to come to a complete stop before approaching the aircraft to position chocks.
d. One designated ground personnel will immediately place chocks forward and aft of the nose gear if the aircraft type allows and according to the options listed in

GOM 4.2.2 . This is the first action to take place around the arriving aircraft and shall be completed before any other activity takes place.

e. Before approaching the main gear, wait until:

1. Engines have been shut down and are spooling down (or propellers completely stopped).
2. Anti-collision lights are switched off.
3. Clearance to approach the aircraft has been given by the personnel responsible for the arrival operation.

f. Walk towards the main gear in a path parallel to the fuselage, avoiding engine intake areas.

g. Place chocks forward and aft of one of the main gears in accordance with the normal operation chock placement diagram. See GOM 4.2.2 .

Note: If chocking in accordance with GOM 4.2.2 Option 2 after the first main gear has been chocked, the nose gear chocks may be removed and positioned at the other main gear.

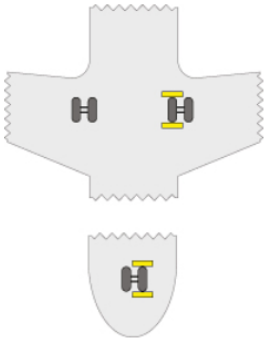
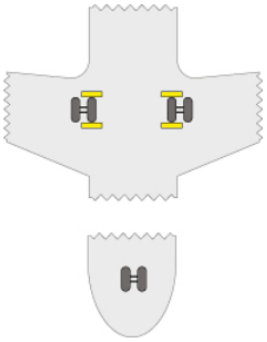
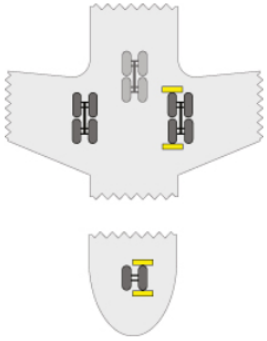
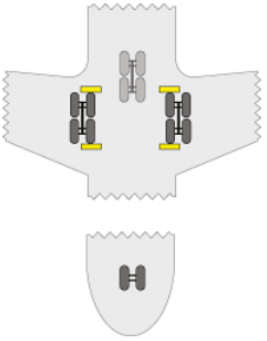
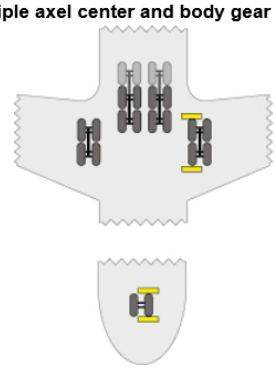
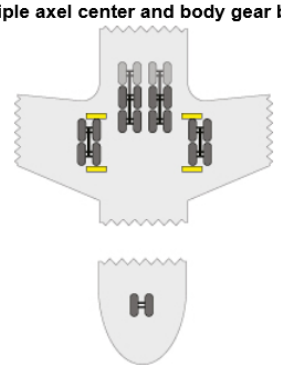
h. Notify the flight crew that the chocks are inserted.

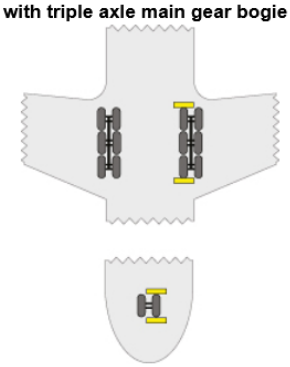
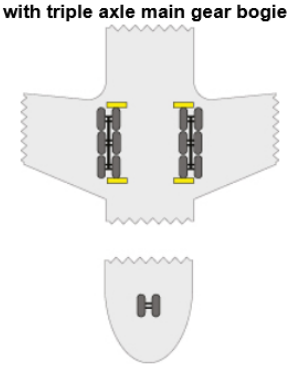
Note: When the aircraft is parked on a slope, the chock on the down-slope side should just touch the wheels and the chock on the up-slope should not touch the wheels.

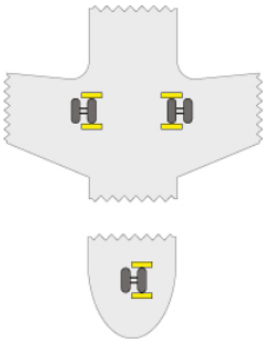
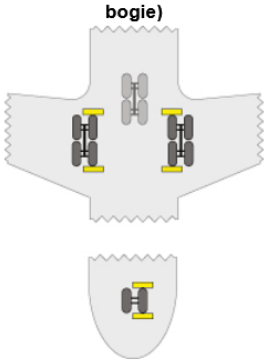
Danger:

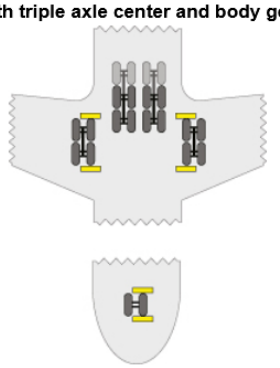
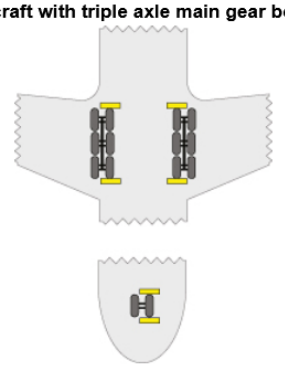
For propeller aircraft with a nose engine, the nose gear cannot be chocked until the engine has been shut down and the propellers have come to a complete stop.

4.2.2. CHOCK PLACEMENT DIAGRAMS

<table>
<tr><th colspan="2">Normal Operation</th></tr>
<tr><td>Aircraft with single axle main gear bogie Option 1
Note: No nose gear chocks on aircraft with spray deflectors.
 
Note: Inside or outside main gear chocks are acceptable</td><td>Aircraft with single axle main gear bogie Option 2
Note: No nose gear chocks on aircraft with spray deflectors.
 
Note: Inside or outside main gear chocks are acceptable</td></tr>
<tr><td>Aircraft with double axle main gear bogie (also applies w/center bogie) Option 1
 
Note: Inside or outside main gear chocks are acceptable</td><td>Aircraft with double axle main gear bogie (also applies w/center bogie) Option 2
 
Note: Inside or outside main gear chocks are acceptable</td></tr>
<tr><td>Aircraft with triple axel center and body gear bogies Option 1
 
Note: Inside or outside main gear chocks are acceptable</td><td>Aircraft with triple axel center and body gear bogies Option 2
 
Note: Inside or outside main gear chocks are acceptable</td></tr>
</table>

Aircraft with triple axle main gear bogie Option 1	Aircraft with triple axle main gear bogie Option 2
	
Note: *Inside or outside main gear chocks are acceptable*	***Note:*** *Inside or outside main gear chocks are acceptable*

Parking Aircraft Out of Service/Night Stop/High Winds	
Aircraft with single axle main gear bogie ***Note:*** *No nose gear chocks on aircraft with spray deflectors.*  ***Note:*** *Inside or outside main gear chocks are acceptable*	**Aircraft with double axle main gear bogie (also applies w/center bogie)**  ***Note:*** *Inside or outside main gear chocks are acceptable*

Aircraft with triple axle center and body gear bogies	Aircraft with triple axle main gear bogie
	
Note: *Inside or outside main gear chocks are acceptable*	***Note:*** *Inside or outside main gear chocks are acceptable*

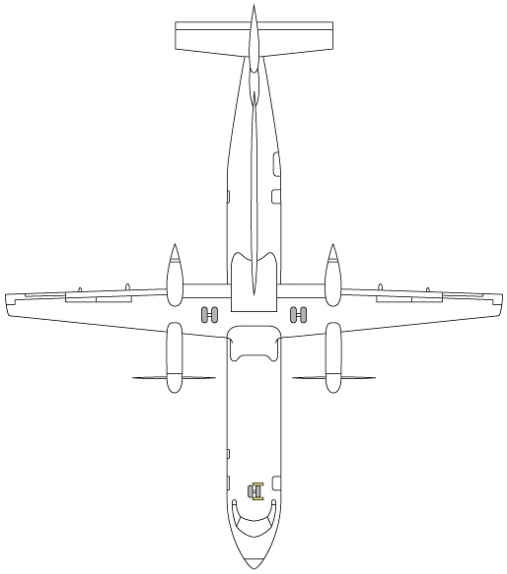
Note: Refer to the operating airline's GOM for any variations in high wind chocking conditions.

4.2.3. REGIONAL AIRCRAFT CHOCKING

Normal Turnaround

Regional Aircraft

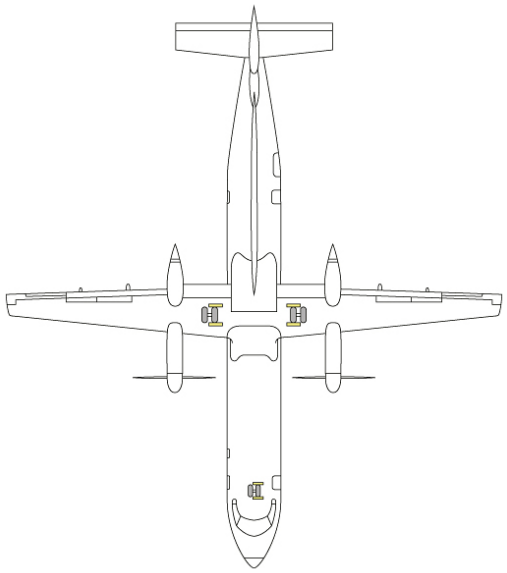
Place chocks forward and aft of nose gear, then secure propellers using appropriate tie-down straps.



Parking Aircraft Out of Service/Night Stop/High Winds

Regional Aircraft

Place chocks forward and aft of nose gear, then secure propellers using appropriate tie-down straps.
CRJ: only nose gear to be chocked (do not chock mains).



4.3. AIRCRAFT CONING

4.3.1. SAFETY CONE PLACEMENT AND REMOVAL

Safety cones are a caution sign for operators/drivers to maintain required safety clearances. Cones protect parts of the aircraft against collision by GSE.

a. Prior to arrival of the aircraft, make sure there are sufficient serviceable safety cones to protect the aircraft type to be handled.

b. Approach the aircraft to position cones only when all the following criteria are met:

1. Aircraft has come to a complete stop
2. Engines have been shut down and are spooling down (or propellers completely stopped)
3. Anti-collision lights are switched off
4. Aircraft has been chocked

Note: Spooling down of an engine can be identified as follows:

1. reduced engine noise
2. visible fan speed reduction
3. lack of exhaust heat or thrust plume

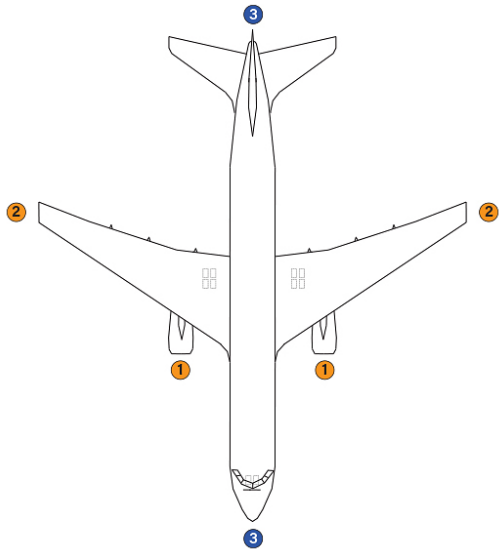
c. Place safety cones on the ground in accordance with the diagrams in GOM 4.3.2 within a maximum of 1 m (3 ft.) radius outward from the point where the aircraft is being protected. Cones shall not be placed in high-wind conditions.
d. Additional safety cones may be needed as per operational requirements or local regulations.
e. GSE shall not approach the aircraft until all safety cones have been placed (not applicable for the PBB or GPU, if required).
f. All required safety cones shall remain in place until GSE and vehicle activities around the aircraft have ceased prior to departure of the aircraft.

Note:

1. In some situations, it may be necessary to reposition cones to allow GSE to be positioned. In such cases, reposition the cones to their original position when the GSE is removed.
2. Cones shall not be placed under engines.

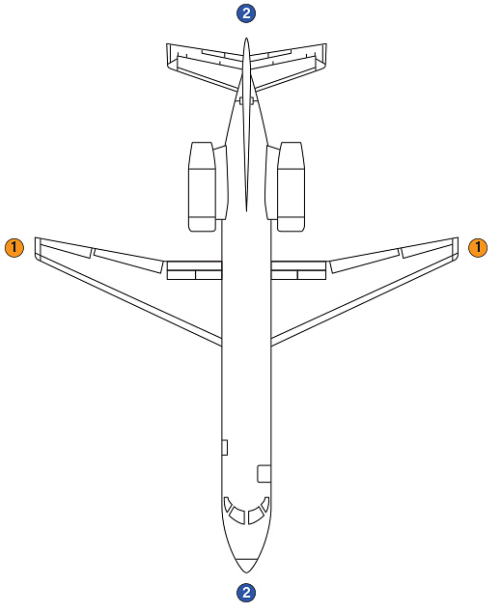
g. Ensure all vehicles have been removed from the ERA, except GSE required for the departure operation, e.g., ASU, GPU/FPU and pushback tractor, as applicable.
h. Remove the safety cones from around the aircraft.
i. When not in use, place the safety cones in the designated storage area.

4.3.2. CONE PLACEMENT FOR WING-MOUNTED TWIN ENGINE AIRCRAFT



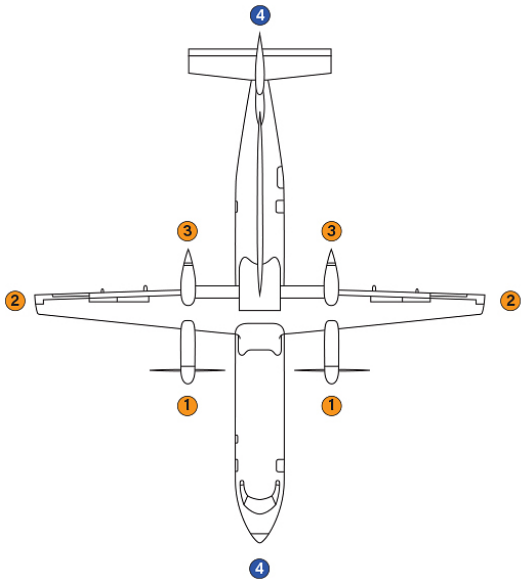
CONE NUMBER	DESCRIPTION
1	Cones placed max. 1 m (3 ft.) in front of engines
2	Cones placed max. 1 m (3 ft.) from wingtips
3	Additional cones to be placed at the applicable end(s) of the aircraft where immediately adjacent to a service road.

4.3.3. CONE PLACEMENT FOR FUSELAGE-MOUNTED TWIN ENGINE AIRCRAFT



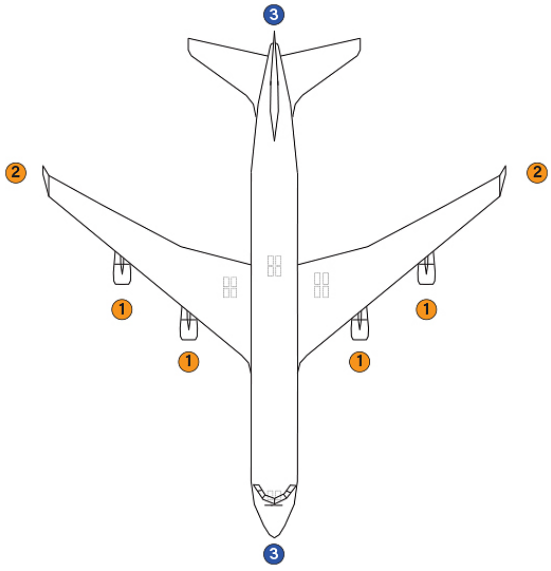
CONE NUMBER	DESCRIPTION
1	Cones placed max. 1 m (3 ft.) from wingtips
2	Additional cones to be placed at the applicable end(s) of the aircraft where immediately adjacent to a service road, and always for aircraft with low ground clearance (e.g., CRJ100/200/700/900/1000, ERJ-135/145).

4.3.4. CONE PLACEMENT FOR WING-MOUNTED TWIN PROPELLER AIRCRAFT



CONE NUMBER	DESCRIPTION
1	Cones placed max. 1 m (3 ft.) in front of engines
2	Cones placed max. 1 m (3 ft.) from wingtips
3	Cones placed max. 1 m (3 ft.) behind engines
4	Additional cones to be placed at the applicable end(s) of the aircraft where immediately adjacent to a service road, and always for aircraft with low ground clearance (e.g., ATR 42/72, DHC-8, Q300/400).

4.3.5. CONE PLACEMENT FOR WING-MOUNTED FOUR ENGINE JET AIRCRAFT



CONE NUMBER	DESCRIPTION
1	Cones placed max. 1 m (3 ft.) in front of engines
2	Cones placed max. 1 m (3 ft.) from wingtips
3	Additional cones to be placed at the applicable end(s) of the aircraft where immediately adjacent to a service road, and always for aircraft with low ground clearance (e.g., BAe-146, Avro RJ-85/100).

4.4. AIRCRAFT ACCESS DOORS

4.4.1. GENERAL SAFETY REQUIREMENTS

This section provides generic precautions and does not constitute training on opening/closing of aircraft access doors.

a. Ground personnel shall not operate any aircraft access doors unless they have been trained and authorized to do so as documented in AHM11.
b. Aircraft access door operation shall be performed in accordance with operating airline procedures for the applicable aircraft type and, where applicable, the markings labelled on the door.
c. Seek assistance from maintenance personnel if any difficulty is experienced during normal door operation.
d. If damage or irregularity is discovered, immediately report it to the supervisor, aircraft maintenance personnel and if available, flight crew.

Caution:

Do not operate or leave doors open in winds exceeding those indicated in the manufacturer's limitations.

Note: For door operations during severe weather, refer to GOM 3.3 Adverse Weather Conditions.

4.4.2. CABIN ACCESS DOORS

4.4.2.1. GENERAL

a. There may be differences between airlines regarding responsibility for operating cabin access doors. The operating airline determines whether ground personnel or cabin crew are authorized to operate cabin access doors. All ground personnel shall follow procedures as set by the operating airline's GOM
b. Cabin access doors shall only be operated or left in the open position if there is a GSE or a PBB with platform at its final height positioned at the door or if an appropriate fall prevention device is placed across the door.

Notes:

1. An appropriate fall prevention device consists of equipment or material, or a combination of both, that is designed to stop or prevent the fall of a person from an open door (e.g., an industrial safety net, catch platform or safety harness system). See Figure 4.4.2.1.
2. Refer to operating airline instructions for installation procedures.
3. The cabin access door strap installed in aircraft doors is not considered an appropriate fall prevention device.

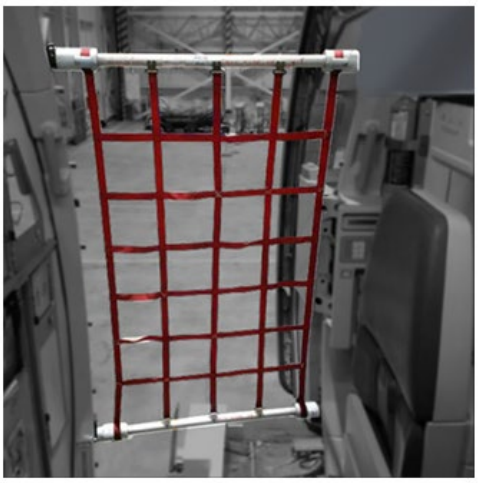


Figure 4.4.2.1—Fall Prevention Device

Danger:

There is a risk of falling while operating cabin access doors.

c. GSE or PBB shall be removed after the cabin access door is closed and acknowledged by cabin crew or by another authorized person.

Danger:

Slide deployments can be fatal. If an armed door begins to open, do not attempt to hold the door from outside, to prevent risk of serious injury or death.

d. If a cabin access door is found open without a GSE or PBB positioned at the door, personnel shall immediately notify a supervisor or the airline representative.
e. Before allowing passenger/crew embarkation or disembarkation via a cabin access door, ensure the boarding device is properly positioned at the door. If stairs or integral airstairs are to be used, ensure both guard rails are extended, if applicable.

Exception:

Cabin access doors shall only be open without GSE or PBB in position when the height of the door from the ground is such that GSE is not required to be positioned to perform servicing/loading operations.

Danger:

Personnel shall remain aware of increased risk of a fall from a height while retracting stair platform and safety rails.

4.4.2.2. OPENING CABIN ACCESS DOORS FROM INSIDE BY CREW

The responsible ground personnel shall:

a. Knock twice on the door, to indicate that a GSE or PBB is properly positioned, and the door swing area is free from obstruction. Provide a conventional "thumbs up" signal through the door window to the crew if required.
b. Stand clear or retreat to a safe position before the door is opened by the crew.
c. Assist cabin crew when required, with moving the door to the fully opened position and engaging the gust lock.

4.4.2.3. OPENING CABIN ACCESS DOORS FROM INSIDE BY AUTHORIZED AND TRAINED GROUND PERSONNEL

a. Check that the door is disarmed.
b. Check that all indicators show that it is safe to open the door.
c. Check that a GSE or PBB is positioned correctly at the door.
d. The door shall be fully opened, and the gust lock engaged.

4.4.2.4. OPENING CABIN ACCESS DOORS FROM OUTSIDE WITH CREW/GROUND PERSONNEL ON BOARD

Where there is a requirement for ground personnel to open door from outside with crew/ground personnel on board:

a. Visually inspect the cabin access door and the surrounding fuselage for signs of damage.
b. Check all indications as per aircraft type that the door is disarmed and safe to open, e.g., residual pressure warning lights or flags.
c. Knock twice on the door to indicate that the door is ready to be opened. Receive a "thumbs up" acknowledgement from the crew/ground personnel on board.
d. If there is no "thumbs up" or indication from the cabin that the door is disarmed, knock twice again.
e. If there is still no "thumbs up" or indication from the cabin crew/ground personnel onboard, contact the flight deck via an open cockpit window or the aircraft interphone system to seek confirmation that it is safe to open the cabin doors.

Caution:

If there is no confirmation that the door is disarmed or safe to open, do not open the door.

f. Once it is confirmed that the cabin access door is disarmed and safe to open, open the door in accordance with the instructions and markings labeled on the door, and the specific instructions for the aircraft type.
g. Move the cabin access door to the fully opened position and engage the gust lock.
h. If integral airstairs are to be used (other than those permanently affixed to a boarding door), fully extend the airstairs prior to opening the door.
i. If using integral airstairs permanently affixed to a boarding door, stand clear of the door and slowly open the door until the airstairs are fully extended.

4.4.2.5. OPENING CABIN ACCESS DOORS FROM OUTSIDE WITH NO CREW/GROUND PERSONNEL ON BOARD

a. Visually inspect the cabin access door and the surrounding fuselage for signs of damage.

b. Check all indications as per aircraft type that the door is disarmed and safe to be opened. e.g., residual pressure warning lights or flags.

Caution

If there is no indication that the door is disarmed or safe to open, do not open the door.

c. Once it is confirmed that the door is disarmed and safe to open, open the door in accordance with the instructions and markings labeled on the door, and the specific instructions for the aircraft type.
d. Move the door to the fully opened position and engage the gust lock.
e. If integral airstairs are to be used (other than those permanently affixed to a boarding door), fully extend the airstairs prior to opening the door.
f. If using integral airstairs permanently affixed to a boarding door, stand clear of the door and slowly open the door until the airstairs are fully extended.

4.4.2.6. CLOSING OF CABIN ACCESS DOORS FROM INSIDE BY CREW CREW/GROUND PERSONNEL ON BOARD

Prior to removing or repositioning GSE or PBB, the responsible ground personnel shall:

a. Notify crew that equipment needs to be removed or repositioned (as applicable) and that the cabin access door needs to be closed.
b. Receive confirmation from the crew that the cabin access door will be closed.
c. Visually inspect the exterior of cabin access door and surrounding areas for signs of damage, debris, or obstructions.
d. Retract equipment safety rails and canopy (where fitted) where necessary to close the door.
e. Assist cabin crew when required, with moving the door to the fully closed position.
f. Where using passenger stairs or PBB, remain on the platform until the door is fully closed.
g. Where using elevating equipment (e.g., catering truck or medical loader) retreat from the platform prior to the door being closed.
h. Check that the cabin access door is closed and that the door and handle are flush with the surrounding fuselage.
i. Descend passenger stairs before they are moved.

4.4.2.7. CLOSING OF CABIN ACCESS DOORS FROM INSIDE BY AUTHORIZED AND TRAINED GROUND PERSONNEL

a. Coordination between applicable ground personnel inside and outside the aircraft to confirm that the cabin access door will be closed shall take place prior to closing the door.
b. The trained ground personnel onboard shall:

1. Visually inspect the cabin access door and inside surrounding areas for signs of damage, debris or obstructions.
2. Move the door to the fully closed and locked position in accordance with the instructions and markings labeled on the door, and the specific instructions for the aircraft type.

c. The GSE/PBB operator shall follow the same steps as documented in GOM 4.4.2.6 b-i and additionally:

1. Where using elevating equipment (e.g., catering truck or medical loader) personnel shall retreat from the platform prior to the door being closed.
2. Retract equipment stabilizers after the door is closed and personnel are clear of the equipment.
3. Remove GSE or PBB from the door.

4.4.2.8. CLOSING OF CABIN ACCESS DOORS FROM OUTSIDE WITH CREW/GROUND PERSONNEL ON BOARD

a. Coordination between applicable ground personnel inside and outside the aircraft to confirm that the cabin access door will be closed, shall take place prior to closing the door.
b. Prior to closing the cabin access door from outside, the person responsible for closing the door shall:

1. Visually inspect the exterior of cabin access door and surrounding areas for signs of damage, debris or obstructions.
2. Retract equipment safety rails and canopy (where fitted) where necessary to close the door.
3. Release the gust lock and move the door to the fully closed and locked position in accordance with the instructions and markings labeled on the door, and the specific instructions for the aircraft type.
4. After the door is closed, check that the door and handle are flush with the surrounding fuselage.
5. When closing the door from passenger stairs, descend the stairs before they are moved.

c. The GSE/PBB operator shall:

1. Retract equipment stabilizers after the door is closed and personnel are clear of the equipment.
2. Remove GSE or PBB from the door.

d. If integral airstairs are used (other than those permanently affixed to a boarding door), fully retract and stow the airstairs.

4.4.2.9. CLOSING CABIN ACCESS DOORS FROM OUTSIDE WITH NO CREW/GROUND PERSONNEL ON BOARD

Prior to closing the cabin access door from outside, the person responsible for closing the door shall follow the same steps as documented in GOM 4.4.2.8(b-c) .

4.4.2.10. REOPENING CABIN ACCESS DOORS

In situations where a cabin access door needs to be reopened and reclosed after initial closing (e.g., not closed properly, additional delivery of catering and/or supplies, requirement to reconnect boarding device), the following shall apply:

a. Where flight crew or other qualified personnel are in the cockpit, but they did not initiate the request to reopen the cabin access door:

1. Seek authorization from the flight crew or other qualified personnel in the cockpit for the cabin access door to be reopened via an open cockpit window (if applicable) or use the flight interphone system.
2. Await clearance to re-open the cabin access door. If authorization to reopen the door is not granted, do not attempt to reopen the door.
3.
   b. Follow the applicable actions/steps in the in the Opening Cabin Access Doors sections (see GOM 4.4.2.1 to 4.4.2.5 , as applicable).

4.4.3. CARGO HOLD ACCESS DOORS

4.4.3.1. CARGO HOLD ACCESS DOORS - GENERAL

a. Manual operation of an electrically or hydraulically operated cargo hold access door may only be performed by trained personnel.
b. To access the cargo hold access door control panel where it is out of reach from the ground, use maintenance stairs in accordance with GOM 3.1.3.3 or a belt loader in accordance with GOM 3.1.3.7 . Note: Not applicable to main deck cargo hold access doors.
c. Allow adequate space for door clearance to avoid equipment obstructing the free passage of the door during opening/closing.
d. The cargo hold access door control panel, where applicable, shall be closed when not opening/closing the cargo hold access door.

4.4.3.2. OPENING CARGO HOLD ACCESS DOORS

a. Before positioning GSE and/or opening, perform a visual check for any signs of damage to the doors or surrounding areas.
b. Where applicable, check cargo hold access door control indicators, residual pressure warning lights or flags to ensure it is safe to operate the door or open the cargo access door vent flap.
c. Open the cargo hold access door in accordance with the specific instructions for the aircraft type.
d. For main deck cargo hold access door, See GOM 4.4.3.5 .

4.4.3.3. CLOSING CARGO HOLD ACCESS DOORS

a. Before closing the cargo hold access door, ensure:

1. The anti-roll-out system (doorsill guards/latches), if installed, is in the raised position.

Note: At each cargo compartment door sill, there are two types of latches.

1) The overridable lateral latch, which stops the accidental roll-out of a unit. This latch is overridden in the loading direction and is lowered for unloading.
2) The other type of latch is an upward latch and locks the unit at the doorsill.

2. Load restraint and door protection nets are properly fitted, if applicable.
3. Door area, including the door sill and frame, are free of debris and other obstructions.
4. Door and surrounding area show no visible signs of damage.

a. Close the cargo hold access door in accordance with the specific instructions for the aircraft type.
b. After closing the cargo hold access door, ensure:

1. The lock indicators are engaged/properly set, as applicable, and that the door is properly locked, handles are properly stowed, and panels are properly closed.
2. A visual check is performed for any signs of damage to the doors and surrounding areas.
3. The vent flaps are also closed, if required.

4.4.3.4. REOPENING OF CARGO HOLD ACCESS DOORS

a. If a cargo hold access door is not closed properly, it shall be reopened and reclosed.
b. Once the predeparture walkaround has taken place in accordance with GOM 4.6.3.1 , do not attempt to reopen any aircraft cargo hold access door without clearance from the flight crew or the trained ground personnel in the cockpit.
c. If a door needs to be reopened, the ground personnel responsible for the departure shall notify the flight crew via the use of the flight interphone system, or where practical, use the cockpit open window.

4.4.3.5. MAIN DECK CARGO HOLD ACCESS DOOR OPERATIONS

Observe the following additional requirements for opening and closing main deck cargo hold access doors:

a. The main deck ULD loader shall remain clear of the main deck cargo hold access door trajectory during opening and closing.
b. Where required to unlock/lock the main deck cargo hold access door from the outside, use main deck ULD loader in accordance with GOM 3.1.3.8.
c. Fall prevention devices shall always be installed whenever the main deck cargo hold access door is open, and the main deck loader is not in position. Remove the fall prevention device once the main deck loader is in position and reinstall the fall prevention device before removing the main deck loader.

Danger:

Risk of falling from height. Any personnel present in the main deck cargo compartment shall remain clear of the door opening area when it is open without a main deck ULD loader in position.

d. Where applicable, check main deck cargo access door control indicators, residual pressure warning lights and flags to ensure it is safe to operate the door.
e. Check to ensure there are no obstructions outside the main deck cargo access door before opening/closing. Note: For main deck specific loading operations, see GOM 4.5.3.3 .

4.5. AIRCRAFT LOADING AND UNLOADING

4.5.1. SUPERVISION OF AIRCRAFT LOADING AND UNLOADING

4.5.1.1. SUPERVISION RESPONSIBILITY

a. The person performing the aircraft loading and unloading supervision task is responsible for the safe and efficient handling of the aircraft as well as the protection of the loads carried.
b. The responsibility will ensure the aircraft is:

1. Unloaded in accordance with the load message (LDM)/container pallet message (CPM)/offloading instructions report (OIR) or any other incoming messages
2. Loaded in accordance with the corresponding loading instruction report (LIR) (see GOM 5.2.2).

Note: Any aircraft loading/unloading operation shall only start in the presence of the person responsible for the aircraft supervision task.

4.5.1.2. COMMUNICATION

When verbal communication is used, it is critical that combinations of letters and numbers are pronounced and understood by those who transmit and receive voice messages by radio or telephone, regardless of their native language. The ICAO phonetic alphabet and numbering system shall be used by all parties when involved in aircraft turnaround.

Refer to GOM Annex C .

To ensure all the load is accounted for accurately prior to departure, the parties responsible for loading and load planning shall clearly communicate and confirm:

a. Flight number
b. Aircraft registration
c. Flight leg (Destination), as applicable
d. LIR edition number
e. Load by position/compartment, including NIL-Position/Compartment(s)
f. Return load (standby load that is not loaded)
g. All commodities and sub-commodities
h. When communicating load figures using verbal communication between the person reporting the load and the person responsible for the load planning task, the person responsible for the load planning task shall always read back the information given according to the same guidelines above.

Notes:

The same principle will apply when the person responsible for the load planning task is verbally communicating information to the person responsible for the loading supervision task, and when loading information is verbally communicated between loading team members and loading team supervisor.

To further prevent miscommunication during the aircraft turnaround handling and close out reconciliation process, implementation of standard verbiage for load discrepancy communication (see Table 4.5.1.1) should be used between the person responsible for the loading supervision task and person responsible for the load planning task and between the person responsible for the loading supervisor task and loading team members.

Efficient communication devices (e.g., headsets, high-performance radio, phones) should be provided to relevant team members for verbal communication to avoid misunderstanding in a noisy environment.

Discrepancy	Description
Offload	Planned load removed from aircraft for any reason (e.g., missing passenger, damaged cargo)
Position Change	Change of position within the cargo compartment or change of cargo compartment
Missing	Load not received for any reason, but planned on LIR
Weight	Difference between deadload weight as shown on LIR and actual weight of load
Incorrect Load	Mismatch of received load for flight (e.g., incorrect ULD number, wrong flight number, incorrectly documented special load)
Restraints	Missing, damaged or malfunctioning floor locks, load restraints and/or nets
Technical	Compartment technical issues (e.g., faulty locks, unserviceable stanchions, broken/missing divider nets, other defects)
Not Planned	Any deadload not included in LIR

Table 4.5.1.1—Load discrepancy communication

4.5.1.3. ACTIONS PRIOR TO UNLOADING

Prior to unloading, the person responsible for the aircraft loading supervision task shall:

a. Brief the unloading team members on safety and unloading requirements in accordance with the CPM/LDM/OIR (as applicable) including any special requirements, e.g., unloading sequence, special load items, restraint requirements, aircraft defect. Check to ensure the briefing and unloading instructions are understood by the persons responsible for aircraft unloading.

Notes:

1. The OIR, which is a systematic plan for unloading, should be issued prior to aircraft arrival.
2. For transit flights, an OIR may be issued.

b. Verify the arriving aircraft registration with the registration on the CPM/LDM/OIR.
c. Ensure the necessary equipment for unloading is available at the aircraft parking stand (see GOM 4.1.1 (c)).

4.5.1.4. ACTIONS DURING UNLOADING

During unloading, the person responsible for the aircraft loading supervision task shall:

a. Cross-check the ULD/load against the CPM/LDM/OIR as the unloading progresses to ensure the correct sequence of unloading takes place in accordance with the specified timelines.
b. For ULD unloading:
1. Carry out visually detectable damage checks during unloading in accordance with GOM 4.5.9.3 .
2. Check ULD placards have been properly filled out with the correct information in accordance with GOM 4.5.9.2 .
3. Perform a cross-check against CPM/LDM/OIR to ensure the following details correspond with each other:

i. ULD number shown on the ULD identification tag
ii. ULD identification number printed or stamped on the ULD
iii. Confirm ULD unload information codes (e.g., X = empty ULD)

4. Ensure that there are no signs of leakage from ULDs.

c. For bulk unloading:

1. Perform a visual inspection of all items during unloading to ensure there is no damage/leakage.
2. Ensure the load distribution is in accordance with the LDM.

d. Ensure special equipment (e.g., tie-down straps, load spreaders, plastic sheeting for wet cargo) is unloaded, as required.
e. Log any irregularities in the unload sequence noted during unloading and report as per operating airline procedures (see GOM 4.5.1.5 (e)).
f. Ensure, where applicable, transit loads are not offloaded or over-stowed.
g. If required, Delivery at the Aircraft (DAA) bags/items shall be delivered as per operating airline requirement.
h. If possible, organize immediate transportation of arriving ULDs and/or carts containing baggage, cargo and/or mail (see GOM 4.5.6.2 and as per specified timelines).

4.5.1.5. ACTIONS AFTER UNLOADING

After unloading has been completed, the person responsible for the aircraft loading supervision task shall:

a. Carry out a hold inspection, in accordance with GOM 4.5.5.1 and action issues accordingly.
b. Ensure the nets and straps are properly stowed and cargo hold access door checks are performed in accordance with GOM 4.4.3 in case the cargo hold access doors need to be closed.
c. Sign the OIR if applicable, (See AHM 514 and AHM 515) and in doing so confirm that:

1. Aircraft has been unloaded in accordance with OIR
2. Load was unloaded in a manner that prevents damage or spillage

d. Close the cargo hold access doors if the aircraft is to be left unattended (see GOM 4.4.3.3).
e. If irregularities are reported during the unload sequence, report in accordance with operating airline procedures.

4.5.1.6. ACTIONS PRIOR TO LOADING

Prior to loading, the person responsible for the aircraft loading supervision task shall:

a. Brief the loading team members on safety and loading requirements in accordance with the LIR, including any special requirements, e.g., loading sequence, special load items, restraint requirements, aircraft defect. Note: Check to ensure the briefing and loading instructions are understood by the persons responsible for aircraft loading.
b. Verify the aircraft registration with the registration on the LIR.
c. Carry out a hold inspection prior to commencing loading, in accordance with the requirements detailed in GOM 4.5.5.1 , and action issues accordingly.
d. Assemble and check loads against the LIR to ensure compliance with:

1. Special handling codes and related information.
2. Destination airport (confirm destination of the loads).
3. Preliminary Notification to Captain (NOTOC) as per AHM 381, where applicable.
4. Special load requirements, e.g., live animals, perishables, valuables, DG, temperature sensitive products etc.

e. Ensure all loads are protected from adverse weather, and particular attention shall be given to special loads (e.g., live animals, perishables, time and temperature-sensitive cargo).
f. Allow no contamination (e.g., snow, ice, water, wood, plastic) on the ULD or bulk load/loose load pieces.
g. Ensure special equipment is available (e.g., tie-down straps, load spreaders, plastic sheeting for wet cargo), as required.
h. Where possible, organize and position the ULDs and/or carts containing baggage, cargo and/or mail in hold and load order.
i. For ULD loading:

1. Carry out a visually detectable damage check prior to loading in accordance with GOM 4.5.9.3 . Note: Ensure all loaded ULDs are serviceable. Do not load damaged ULDs.
2. Ensure ULD placards are properly filled out with the correct information as detailed in GOM 4.5.9.2 .
3. Perform a cross-check to ensure the following identification numbers correspond with each other:

i. ULD number shown on the LIR
ii. ULD number shown on the ULD identification tag
iii. ULD identification number printed or stamped on the ULD

4. Cross-check ULD gross weights.
5. Confirm ULD load information codes (e.g., X = empty ULD).
6. Ensure no signs of leakage from ULDs.

7. All ULDs are safe to move and will not shift, roll, or topple while maneuvering/loading onto the aircraft.

j. For bulk loading, confirm:

1. Cart identification labels are correctly filled in where applicable.
2. Loose pieces/weight information is correct, where applicable.
3. A visual inspection of all items of bulk load is performed prior to loading to ensure there are no signs of damage or leakage that may damage or contaminate the aircraft.

4.5.1.7. ACTIONS DURING LOADING

During loading, the person responsible for the aircraft loading supervision task shall:

a. Cross-check the ULD/bulk load against the LIR as the loading progresses to ensure the correct sequence of loading takes place in accordance with the specified timelines (e.g., where applicable, transit loads are not over-stowed for transit stations).
b. Regularly check whether loading personnel who are physically loading the aircraft encounter any loading issues and attend to any issues raised concerning loading.

Notes:

1. Stop/suspend loading operations where an irregularity is discovered e.g., aircraft/cargo hold/ULD damage, damage to or leakage from load items, cargo loading system malfunction
2. Log any irregularities in the load sequence noted during loading and report as per operating airline procedures (see GOM 4.5.1.8).

c. Liaise with the person responsible for the weight and balance calculation task and receive authorization for any deviations, including any last-minute changes to the LIR, as documented in GOM 5.3.2 . The person responsible for the weight and balance calculation task shall check the deviation and confirm whether possible or give an alternative solution. Note: Any load information change between the LIR and actual loading (e.g., changes in transfer bag figures, cargo figures) shall be communicated to the person responsible for the weight and balance calculation task as soon as known to avoid unnecessary reloads, weight and balance issues, and last-minute pressure.
d. If an authorized change of load order occurs, provide confirmation of change to the persons responsible for the aircraft loading task prior to recommencing loading in the hold.
e. Protect all loads from adverse weather and special attention shall be given to live animals and/or perishables.
f. Ensure special loads are handled and loaded as per instructions provided.
g. Where applicable remove any loose plastic or any other material used to protect the load from bad weather.
h. Visually inspect all loads requiring special handling to ensure they are secured against shifting. Ensure all necessary nets have been closed. See GOM 4.5.7
i. If required, Delivery At the Aircraft (DAA) bags/items shall be loaded as per operating airline and local authority requirements. See GOM 2.4.4
j. For tracking/reconciliation during loading see GOM 2.4.3

4.5.1.8. ACTIONS AFTER LOADING

After loading has been completed, the person responsible for the aircraft loading supervision task shall:

a. At the completion of loading, receive confirmation of the following from the persons performing the aircraft loading task:

1. Loading status of the aircraft is in compliance with the latest edition of the LIR.
2. Loads are secured and that all locks, stops, nets, net stanchions, fire blankets are raised, closed, locked or installed and that load securing is correctly applied (see GOM 4.5.7)

b. Where the operating airline requires additional signature fields to be completed on the LIR (e.g., by the person performing the loading of each hold), ensure the applicable person(s) have signed the required fields in accordance with operating airline requirements.

Note: The person responsible for the aircraft loading supervision task still maintains overall responsibility for the loading of the aircraft.

c. Sign the LIR, and in doing so confirm that:

1. Aircraft has been loaded in accordance with the final edition of the LIR including any authorized changes.
2. Load is secured (in a manner that prevents movement or spillage during flight) and locks, stops, nets, fire blankets are correctly installed, raised, locked.

d. If applicable, sign a NOTOC to confirm or otherwise state that:

1. There was no evidence of leakage from the package(s) or any leakage from the ULDs loaded on the aircraft.
2. The package or ULD is loaded in the designated position and secured.

Note: The LIR and the NOTOC shall be retained in accordance with applicable regulations.

e. If irregularities are reported during the load sequence report in accordance with operating airline procedures
f. Ensure cargo hold access door checks are performed in accordance with GOM 4.4.3.3

4.5.2. AIRCRAFT GROUND STABILITY

Airline ground stability requirements, where applicable, shall be adhered to.

Unloading or loading may cause the aircraft to become unstable or could cause tipping. For some aircraft types, a tail stand or nose tether is available.

The unloading sequence may be reported in the OIR/CPM/LDM and loading sequence in the LIR. When detailed information about the unloading and loading sequence is not available, as a general principle for cargo aircraft and passenger aircraft sensitive to tail tipping, ensure the sequence below is adhered to:

a. Unload the aft hold first.
b. Unload the main deck in sequence to always have more load in front of the wing box than aft of the wing box.
c. Unload the forward hold last.
d. Load the forward hold first.
e. Load the main deck in sequence to always have more load in front of the wing box than aft of the wing box.
f. Load the aft hold and bulk last. Note: If this sequence cannot be followed, check with the operator for instructions about the correct unloading/loading sequence.

4.5.3. SAFETY REQUIREMENTS SPECIFIC TO AIRCRAFT LOADING AND UNLOADING

4.5.3.1. SAFETY REQUIREMENTS SPECIFIC TO AIRCRAFT LOADING AND UNLOADING - GENERAL

a. Holds and compartments shall only be entered or exited by using the appropriate loading equipment, which shall be positioned and secured at the aircraft cargo hold access door.

   Exception:
   For smaller aircraft see GOM 4.5.3.4

b. Loading equipment shall remain in position while personnel are still in the cargo hold.
c. Equipment operators shall ensure other personnel are not entrapped by movement of loads, pallets and/or containers, either in the aircraft or on the loading equipment.
d. Carts shall not be used to gain access to cargo holds.
e. Personnel shall walk around chains of carts and dollies to access required areas. Do not walk or stand between carts and dollies even when they are stationary on the ramp.
f. Hinged side gates of loaded carts shall be lowered carefully in case loads fall out and cause injury.
g. Take care when pulling or pushing carts, especially when ramp conditions are slippery. When necessary, obtain assistance.
h. Use correct manual handling techniques and practices when handling heavy items. Obtain assistance when moving heavy articles.

4.5.3.2. UNIT LOAD DEVICE LOADING AND UNLOADING

a. For ULD loader operations, see GOM 3.1.3.8 .
b. Inspect all ULDs before loading/unloading to ensure no nets, straps or protective materials can drag or get jammed in rollers, ball mats or wheels of power drive units (PDUs).
c. Push (do not pull) ULD on/off dollies and loaders where possible.
d. ULDs on dollies or transporters shall be secured to prevent movement using locks, stops or rails, except when the load is being transferred to/from the equipment.

Caution:

Do not place ULDs directly on the ramp surface.

Danger:

During loading/unloading operations:

1. **To avoid personnel injuries (e.g., slips, trips and falls) when walking inside the cargo holds, do not step on cargo loading system components (e.g., restraints, PDUs, roller tray(s)) or sloped side walls except where dedicated step positions are provided.**
2. **Personnel shall remain clear of the ULD movement path at all times.**
3. **Moving ULDs may cause injuries to personnel.**
4. **Only raise locks once the ULD comes to a complete stop.**

For Cargo Loading Systems (CLS) equipped with PDUs:

1. **When ULDs become stuck, personnel may assist with the dislodging of the unit after coordinating with the CLS equipment operator. In such cases, all personnel shall be aware of sudden ULD movements.**
2. **The CLS equipment operator shall always be aware of where loading personnel are positioned.**

Note: Certain ULDs can tip during movement as the base is smaller than the top, causing a high center of gravity.

4.5.3.3. MAIN DECK LOADING OF FREIGHTER AIRCRAFT

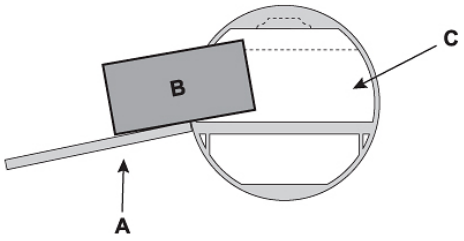
Observe the following additional requirements for unloading/loading of ULDs on the main deck of freighter aircraft:

a. Ensure the ULD loader is in position before removing the safety net. Install the safety net immediately after loading/unloading is finished.
b. Monitor the clearance between the aircraft and GSE while moving cargo into/out of the main deck. Keep in mind that the vertical movement of cargo aircraft during loading/unloading and fueling can be up to 70 cm (27.5 in.). Ensure the ULD loader is level with the height and angle of the cargo compartment floor. To avoid main deck cargo access door damage by strong winds, refer to the operator's GOM for high-wind condition limits.

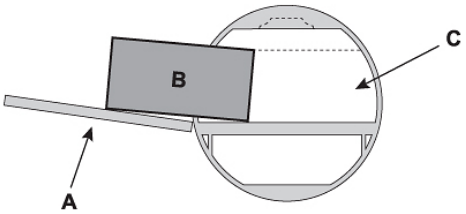
Caution:

Avoid bridging and cresting while loading/unloading heavy cargo, as this can cause damage to the aircraft and/or ULD.

Cresting



Bridging



Alpha-Numeric	DESCRIPTION
A	ULD Loader
B	Cargo
C	Main Deck

Danger:

To avoid serious injury during loading/unloading with a CLS and PDU in the aircraft, if applicable,

do not use the outside control panel when any personnel are present inside the cargo compartment. Use only the internal control panel to keep a view of personnel in the cargo compartment. ULD locks may only be latched or released when the select switch is in "local/inside" mode.

4.5.3.4. BULK LOADING AND UNLOADING

a. Where a belt loader is used, position items on/off the belt loader see GOM 3.1.3.7 .
b. Where possible avoid placing loads directly on the ramp, especially if the ramp is contaminated.
c. When loading/unloading aircraft directly from the ramp without the use of equipment:

1. Position carts/dollies to/from the aircraft in a parallel direction to the fuselage, maintaining a gap of at least 1m (3 ft.) from the fuselage.
2. Always turn tractors and carts/dollies away from the aircraft.

Note: For any load items that cannot be safely loaded directly from the ramp, appropriate loading equipment (e.g., belt loader) should be used to avoid injury or damage.

d. Ground personnel carrying out bulk loading task shall:

1. Use the right lifting techniques to reduce on the risk of injury
2. Be accounted for once inside the aircraft hold and after completion of loading for safety reasons

4.5.3.5. SHIPMENTS REQUIRING SPECIAL HANDLING

a. General
1. All shipments requiring special handling shall be identified on the LDM or CPM for arriving flights or under a NOTOC for departing flights.
2. Comply with any special handling requirements. Be alert for special load and/or dangerous goods shipments.

3. Always follow the orientation markings and/or special handling instructions, as applicable, while handling.
4. Make sure packages with directional handling labels are kept in the correct orientation (e.g., THIS WAY UP).
5. Always observe the specific instruction labels and markings (i.e., Cargo Aircraft Only (CAO), FRAGILE, TOP, THIS SIDE UP).
6. Ensure shipments labeled "Cargo Aircraft Only" are not loaded into a passenger aircraft.
7. Always handle fragile items with care.

b. Dangerous Goods

1. Transportation shall be in accordance with the IATA DGR. Refer to the corresponding sections of the operator's GOM for airline specifications or restrictions.
2. Ensure dangerous goods are handled and secured or stowed in a manner that:

i. Prevents damage to packages and containers during aircraft loading and unloading.
ii. Provides for separation and segregation of packages on the aircraft to prevent interaction in the event of leakage.
iii. Prevents movement that could change the orientation of packages on the aircraft.
iv. Is in accordance with the information provided on the NOTOC.

3. In case a dangerous goods package or shipment appears to be damaged or leaking, ensure:

i. Such package or shipment is prevented from being loaded into an aircraft.
ii. In the case of leakage, to conduct an evaluation to identify and prevent from transport any other cargo, baggage or transport devices that have become contaminated by the leakage of dangerous goods, and the removal of the hazardous contamination.
iii. If already loaded, the package or shipment is removed from the aircraft.
iv. Immediate notification to the customer airline and relevant authority.

c. Live Animals

1. Transportation shall be in accordance with the IATA Live Animals Regulations (LAR). Refer to the corresponding sections of the operator's GOM for airline-specifications or restrictions.
2. During handling of live animals, ensure that they are:

i. Loaded and secured into suitable aircraft compartments as directed by the LIR.
ii. Separated from foods, dangerous goods or other AVI that are natural enemies.
iii. Handled with care and in a manner which minimizes the waiting period and is in compliance with the shipper's specific handling instructions, if required.
iv. Not exposed to adverse weather or environmental conditions during transportation, loading and unloading.

Note: See AHM 332 on Handling and stowage of live Animals

d. Wet Cargo

The following types of cargo, if not subject to the IATA DGR, shall be considered as wet cargo:

1. Liquids in watertight containers
2. Wet materials not packed in watertight containers (e.g., fish packed in wet ice, fresh or frozen meat, casings (fresh animal guts), wet hides, skins)
3. Goods that by their nature may produce liquid (e.g., larger live animals (usually mammals) where the presence of feces and urine is likely)
4. Fruits/vegetables with high moisture (e.g., berries)

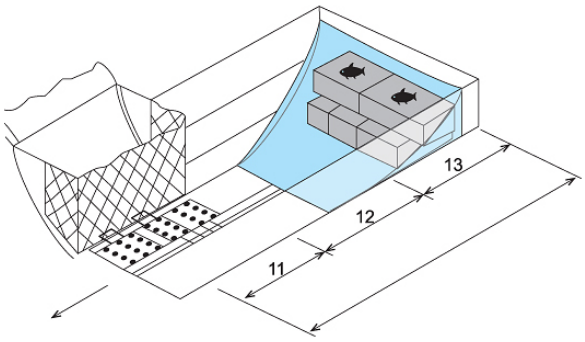
Note: Live animals such as birds, reptiles, insects and certain mollusks (terrestrial) in appropriate animal containers do not pose a higher risk for corrosion than normal baggage/cargo and are, therefore, exempted. Refer to IATA LAR.

Caution:

Spillage or leakage during carriage by air could lead to corrosion or other damage to the aircraft structure or its components, or damage to other loads. In case of spillage or leakage, inform responsible ground personnel, maintenance and fight crew if on board.

5. The person responsible for the aircraft loading supervision task shall ensure the wet cargo is properly packed and free of leakage. Do not load damaged or leaking packages.
6. Loading precautions:

i. Spread plastic sheets or tarpaulins to protect the aircraft floor and walls from catching any spillage or leakage. Use absorbent material as required by operating airline procedures.
ii. For wet cargo in containers that are not watertight, follow operating airline procedures.



Notes:

When wet or damp, the strength of some packaging can be considerably reduced. Special attention shall be given to avoid the crushing of packages when stacking to several levels.

For reference regarding packing of wet cargo and temperature sensitive packaging, refer to IATA Perishable Cargo Regulations (PCR) and IATA Temperature Control Regulations (TCR).

e. Perishable and temperature-sensitive healthcare products
During transportation, loading and unloading of perishable and temperature-sensitive healthcare products, ensure that they are:

1. Handled in a manner to minimize the waiting period.
2. Not exposed to adverse environmental conditions.

Notes:

1. Perishables must be moved into storage (e.g., cooler, freezer) appropriate for the type, in accordance with the Perishable Cargo Regulations (PCR).
2. Pharmaceuticals must be moved into storage (e.g., cooler, freezer) appropriate for the type, in accordance with the Temperature Control Regulations (TCR).

f. Dry Ice

Dry ice (solid carbon dioxide) is used as a refrigerant for temperature sensitive health care products e.g., vaccines and other life sciences products to ensure that they are maintained at the required temperature throughout the supply chain.

1. Where dry ice is present in the cargo being loaded or unloaded from the ramp, personnel must be aware of the precautions required to ensure that there is no risk of suffocation from elevated CO2 levels from sublimating dry ice.
2. Refer to airline GOM/relevant manual for requirements concerning loading and unloading of dry ice as dangerous goods and maximum permitted quantities per aircraft type.
3. Verify the documentation for the presence of dry ice as a refrigerant (code ICE) and instruct the personnel that the cargo compartment shall be allowed to vent after the cargo hold access door is opened and before entering the cargo compartment.
4. Open the cargo compartment access door and stand back. No person shall enter the hold. A cargo compartment where dry ice is present must be allowed to vent after the cargo compartment door is opened.
5. Cargo hold access doors shall remain open to clear dry ice vapors before entering the hold or compartment.

Danger:

There is a risk of suffocation when entering a compartment containing dry ice.

Anyone entering a cargo compartment before the dry ice vapor has dispersed may be overcome with dizziness and shortage of breath due to lack of oxygen. In such circumstances the person should be removed immediately to fresh air and, if his breathing is seriously affected, call a doctor.

4.5.4. UNLOADING

4.5.4.1. SCALING PROCESS

If the flight crew experiences a handling issue on takeoff, they may request the scaling of all loaded baggage and cargo at the arrival station.

The scaling process shall be coordinated with the airline representative. Further handling of baggage and cargo shall only proceed once the scaling is completed and the weights confirmed.

4.5.4.2. SAFETY PRECAUTIONS FOR UNLOADING

a. Before positioning GSE and/or opening cargo hold access doors, perform a visual check for any signs of damage to the doors or surrounding areas (see GOM 4.4.3).
b. Check to ensure the aircraft hold load has not shifted during the flight.

1. Verify the contour of the cargo loads passing through the doorway to ensure sufficient space between the doorway depressor seals and the cargo load.
2. Contact the person responsible for the aircraft loading supervision task if any load has shifted and will not safely exit the door.

c. Check for incorrectly loaded ULDs (i.e., locks not raised, locks or guides overridden).
d. Check loads/ULDs during unload for damage, leakage and load stability.
e. Check for damage to the aircraft hold as the unloading progresses and after completion of unloading (see GOM 4.4.3).

Note: Immediately report any irregularities (e.g., spills, unusual fumes or smells, unsecured loads/restraints, LDM/CPM discrepancies) prior to or during the unloading process to the person responsible for the aircraft loading supervision task or as required by the operator or authority.

4.5.5. CARGO HOLD INSPECTION

4.5.5.1. CARGO HOLD INSPECTION - GENERAL

a. A cargo hold inspection shall be performed:

1. After the aircraft unload is complete.
2. Prior to loading if this does not follow immediately after unloading is complete.
3. When the aircraft was unattended between unloading and loading.
4. When there was a change of persons responsible for the aircraft loading and/or supervision task.

b. The person undertaking the cargo hold inspection shall perform a visual check of all cargo holds to ensure:

1. No damage to compartment floors, walls, ceiling, door frames, panels, door.
2. No missing, damaged or malfunctioning floor locks, load restraints or nets.
3. No spills.
4. No loads other than transit loads have been left on board the aircraft.
5. Any other items that should not be present in the hold have been unloaded.

c. Prior to commencing the loading of the aircraft, the person responsible for undertaking the cargo hold inspection shall provide positive confirmation to the person responsible for the aircraft loading supervision task that the inspection has been carried out, if appropriate.
d. Any damage or discrepancies observed shall be reported to the person responsible for the aircraft loading supervision task or to the person responsible for the weight and balance calculation task (as a minimum). Note: A check shall be conducted of a hold even if on arrival the hold was reported as being empty.
e. Any items that should not be present in the hold shall be removed

4.5.5.2. CARGO HOLD DEMAGE

Any damage to compartment liners (i.e., holes, tears, detachment) may reduce their effectiveness, permitting air to enter the compartment and fire suppression agents to escape, thereby reducing the capability to handle a fire event that may lead to specific loading limitations; therefore:

a. Any technical malfunction, damage or irregularity discovered shall be immediately reported to the supervisor, aircraft maintenance personnel and if available, the pilot-in-command (PIC). See GOM 4.4.1 .
b. Adhere to any resulting load limitations according to operating airline procedures.
c. Inform the onward station(s) of the load limitations according to the instructions of the airline representative if the defect cannot be rectified before departure.

4.5.5.3. SPILLS IN CARGO HOLDS

a. Spills can occur in cargo holds during unloading and/or loading as well as in flight due to:

1. Improper packaging
2. Damage due to mishandling prior to loading
3. Improper loading in the compartment

b. Spills can be from liquids, gels or materials in powdered or granulated form.
c. Spills can be hazardous, corrosive, flammable, explosive, toxic, poisonous, etc. Even water can cause serious damage to electrical components and systems.
d. Spills can be corrosive to the aircraft structure. Mercury spills are particularly corrosive to the extent that the affected aircraft structure may have to be completely replaced if the spill is not cleaned up quickly.
e. It is essential that any spill is reported immediately so that corrective action can be taken.
f. Initiate the local spill response plan for spill events.
g. Request information from the respective cargo terminal operator about the nature of what has leaked as well as the safety data sheet, if applicable.

4.5.6. LOADING

4.5.6.1. LOAD HANDOVER

The handover process between cargo handling (cargo warehouse), baggage handling (baggage make-up area) and ground handling (ramp) departments shall be done systematically to ensure a safe departure.

Depending on the airport infrastructure and/or local agreements, the handover of cargo, mail and baggage to the ramp should be done at a dedicated handover point.

4.5.6.2. LOAD TRANSPORTATION

Prior to transporting cargo and/or mail to/from the cargo warehouse or baggage from the baggage make-up area or baggage claim area, the equipment operator shall ensure:

a. The GSE used for transportation is serviceable. For GSE operations see GOM 3.1.3 .
b. A visual inspection of all loads is carried out to ensure:

1. The cargo, mail and/or baggage for transport is the correct load for the departing/arriving flight(s).
2. No nets, ropes, straps or protective materials can drag on the ground or get jammed in rollers, ball-mats or wheels.
3. All built-up cargo/mail/baggage is safe to move and will not shift, roll or topple.
4. There is no damage to the load.

c. All loads are protected from adverse weather via use of tarpaulins or covered carts. Special attention shall be given to live animals and/or perishables. When using tarpaulins, all straps shall be securely fastened to the cart.

4.5.6.3. LOAD DELIVERY FOR DEPARTURE

Depending on the location of the handover point, the person responsible for the aircraft loading supervision task or the person responsible for receiving the load shall:

a. As required by the airline and if applicable, receive all documentation, pouches and special instructions for the specific flight.
b. Carry out an inspection of all of the load to ensure:

1. The load is correct for the departing flight(s).
2. No damage has occurred during the transport process.
3. There is no evidence of tampering with the load (e.g., cuts, tears to plastic foil).
4. No nets, ropes, straps, protective materials, etc. should drag on the ground or get jammed in rollers, ball-mats or wheels while maneuvering or while being loaded onto aircraft.
5. All dollies are serviceable, and all restraints are engaged to secure the ULD on the dollies prior to the ULD being loaded onto the aircraft.

c. Immediately report any damage to the load(s), whether it is discovered when the load arrives on stand or occurs during loading.

1. Report torn or missing baggage tags and cargo labels.
2. Do not load unless discrepancies are corrected.

4.5.6.4. LOADING PROCESS

a. Loading shall not commence if there is no LIR (electronic or hard copy), unless otherwise specified by operating airline procedures.
b. Report any loading issues, errors, changes or other loading matters to the person responsible for the aircraft loading supervision task immediately.
c. Any signs of hold damage must be reported immediately.
d. While loading ULDs into position in the compartment, the equipment operator shall ensure:

1. When ULDs are loaded, raise/lock the ULD restraints to secure the ULD in applicable position, in accordance with the LIR and as per the operator's GOM.
2. While loading ULDs:

i. The edges are either guided by the safety rails or fit under the stops/locks/guides.
ii. The height of the pallet allows for sufficient clearance in the door opening.
iii. Control the speed at which ULDs are moved within the aircraft, slowing the ULD prior to reaching its allocated position to prevent crashing.
iv. They have no protrusions or overhangs that will damage the aircraft cargo hold access door opening or the interior of the aircraft cargo hold.

Notes:

1. A tactile check shall be performed by checking the security of each lock to ensure serviceability. A systematic double-check of the restraint system and of special loads (e.g., heavy (HEA), AVIH, human remains (HUM), etc.) before departure is recommended.
2. All ULD restraints shall be raised, unless specified by the operating airline procedures.
3. ULD restraints do not have to be raised in cargo holds that are completely empty, unless otherwise specified by operating airline procedures.
4. If applicable, ensure fire barriers are installed as the hold is loaded.

e. While loading into bulk holds, the person carrying out the loading of baggage/cargo/mail shall:

1. Load in accordance with LIR requirements.
2. Cross-check cart labels to ensure the load is correct.
3. Check cargo, mail and baggage labels to ensure correct destination/flight number.
4. Ensure any leaking or damaged loads are not loaded and the supervisor is informed immediately. Any contaminated load is kept separately.
5. Ensure applicable special load items are tied down (see GOM 4.5.7) or otherwise secured in accordance with operating airline requirements.
6. Install/close/secure compartment/bay divider nets, barrier nets, fire curtains, door nets and stanchions, as applicable.
7. Ensure light packages are not loaded or wedged between heavier items.
8. Ensure the necessary clearance between the load and aircraft hold ceiling is achieved to avoid any obstruction or damage to aircraft smoke detector/fire suppression system. Specific requirements given by the operating airline shall be followed.
9. Loads shall be correctly stacked to achieve maximum volume.
10. Confirm the final loading status to the person responsible for the aircraft loading supervision task.

Notes:

1. Between unload and onload, compartment nets shall be secured inside aircraft compartments and not left hanging outside to avoid clips and attachment points striking the fuselage, especially during adverse weather.
2. Ensure the ramp area is clear of all wooden and/or plastic pallets and other load related material after completion of loading or unloading.

4.5.7. SECURING OF LOAD

4.5.7.1. SECURING OF LOAD – GENERAL RULES

When transporting a load in an aircraft, it shall be secured such that it shall not:

a. Move during the flight, which could dangerously affect the weight and balance of the aircraft.
b. Cause damage to the aircraft structure or other important parts of the aircraft.
c. Cause damage to another load or become damaged itself.
d. Cause injury to passengers and crew in case of an emergency landing.
e. Cause injury to ground handling personnel during loading and unloading.

4.5.7.2. BULK COMPARTEMENTS

a. The load in bulk compartments is generally secured by door nets and sector divider nets. Ensure the following items are always secured:

1. Barrels or drums filled with liquids
2. Cages or boxes with AVIH
3. HEA pieces weighing 150 kg (330 lb.) or more
4. Coffins with HUM

Caution:

Do not load baggage or other shipments on top of the coffin.

5. Dangerous goods (see GOM 4.5.7.7)
6. Powered mobility aids
7. Loads that need spreading
8. Fragile loads

b. The following loads shall not move vertically or horizontally during flight. If the available volume of the compartment or net section is not volumetrically filled (three quarters of the height) with load, additional securing is necessary for:

1. Loads that are sensitive against shocks or tilting
2. Wet cargo
3. High-density packages
4. Pipes, tubes, bars, beams, planks, poles or other objects of a penetrating nature

c. If long pieces do not fit into one net section and the divider net cannot be closed correctly, check with the operator's GOM for load restrictions. Refer to operating airline procedures for further requirements.
d. For battery-powered wheelchair and mobility devices ensure:

1. It is loaded/unloaded in such a manner that prevents unintentional activation during transport and the battery terminals shall be protected from short circuits (refer to IATA DGR).

2. The battery is either adequately protected against damage by the design of the mobility aid and securely attached to the wheelchair/device, isolating the electrical circuits according to the manufacturer's instructions, or
3. Removed from the mobility aid following the manufacturer's instructions.

Note: Battery-powered wheelchairs or mobility devices for use by passengers are classified in three main categories, based on the battery type that powers the device as defined in DGR Manual 2.3.2.2-2.3.2.4

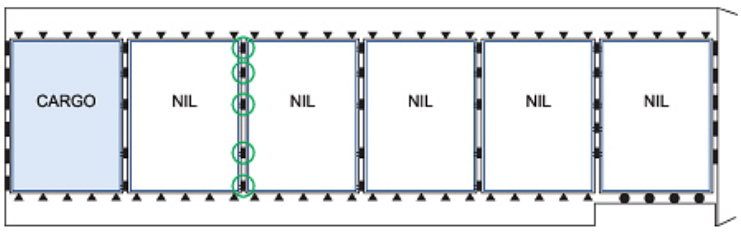
4. It does not roll when moving up the loading belt in an upright position. If tilting is necessary, ensure the passenger has consented and can only be tilted on the side without the device controls.
5. It shall be secured against movement in the cargo compartment, by use of straps, tie-downs or other restraint devices.
6. The mobility aid, including batteries, electrical cabling and controls shall be protected from damage, including damage caused by the movement of baggage, mail and cargo.
7. Any battery-powered mobility aid shall not be stowed together with loose loaded (bulk) items within a unit load device (ULD), or other loads loaded on top.

Notes:

1. When securing, use tie-down points, keep the mobility aid in an upright position where possible, secure the mobility aid using the base frame, avoid unnecessary tilting of the mobility aid, ensure adequate clearance when loading/unloading, avoid over-tightening tie-down straps or other securing devices, load last when possible.
2. The PIC shall be informed of the location of the mobility aid with installed batteries, removed batteries and spare batteries.

4.5.7.3. SECURING OF ULDS

a. ULDs should be secured by a ULD restraint system on the compartment floor. Refer to the operator's GOM for relevant information on applicable ULD configurations, loading and restraint systems for each aircraft type. Observe the handling instructions of the operator in the case of missing or unserviceable restraints.
b. If there are empty loading positions, as a minimum, the restraints of the empty position forward or aft of the ULD shall be raised. Refer to the operator's GOM for guidance on the specific aircraft type.



c. ULD restraints do not have to be raised in cargo holds that are completely empty unless operating airline procedures state otherwise.

d. In special cases, pallets can be tied down as a floating pallet with straps to tie-down points on the aircraft structure, as per operating airline procedures.

4.5.7.4. TIE-DOWN LOADS

Definition of forces

Properly tie down the loads on board the aircraft to withstand the following types of forces during takeoff, flight and landing.

Force	Definition
Forward	Horizontal forces effective during landing and steep angles of descent
Backward	Horizontal forces effective during takeoff and steep angles of climb
Sideward	Horizontal forces effective during rough landing, turbulence and close turns
Upward	Vertical forces effective during landing and heavy turbulence in flight

Depending on the flight situation, the forces described above can be stronger than normal gravity force of 1 g. Secure all loads against the different forces according to the gravity factor (g-factor).

In general, the pallet build-up is done with a net that restrains the load against all forces.

Tie-down of load with straps or ropes

If the primary restraint of the load is done by straps, tie-down must be carried out according to AHM 311 or ULDR (OS 6/07).

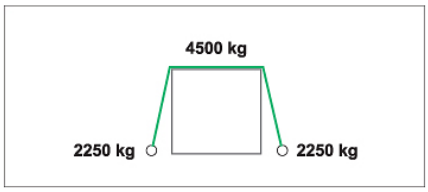
The usage of tie-down material with different capacities is not allowed.

There are two ways to secure a package with tie-down ropes or straps:

a. Lashing across or around a package (embraced lashing)

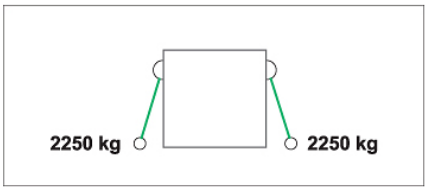
The embraced lashing method with tie-down straps or ropes fastens the strap or rope from one tie-down fitting across or around the load to a second tie-down fitting on the opposite side.

A strap attached to the fittings on opposite sides of the load is rated to hold twice its ultimate load capacity. For example, an ETSO/TSO-C172 strap with 2,250 kg (5,000 lb.) rated restraint capacity will provide up to a maximum 4,500 kg (10,000 lb.) ultimate load for standard lashing.



b. Lashing directly fastened to the package (direct lashing)

If a tie-down strap is directly fastened to the load with one tie-down fitting, the ultimate restraint capacity of the strap (e.g., an ETSO/TSO-C172 strap with 2,250 kg (5,000 lb.) ultimate load) will apply.



4.5.7.5. USE OF TIE-DOWN MATERIAL

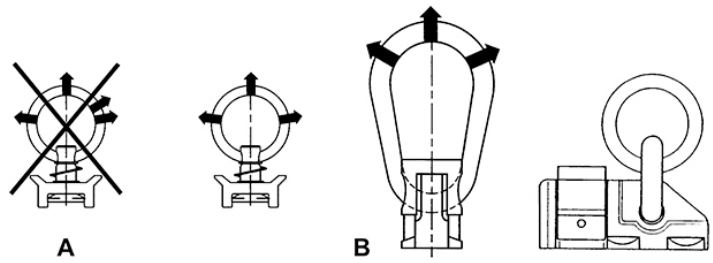
Make sure the tie-down material is in serviceable condition.

a. Tie- Down Ropes

1. Fix tie-down ropes to the aircraft floor tracks or tie-down fittings.
2. Make sure the overlapping ends of the tie-down ropes are long enough and will not loosen in the case of sudden stress.
3. Fix the tie-down ropes to the tie-down rings in a way that they may be easily loosened for unloading.
4. Do not fix tie-down ropes to other parts of the aircraft.
5. Do not use the same attachment points for lashing to secure the net sector divider nets.

b. Tie- Down Fittings

A single tie-down fitting may receive up to three straps/ropes in three different restraint directions (one up and two opposite horizontal directions). Forces generated by the load can never act in more than one direction at the same time; thus, the fitting will never be pulled by more than one strap/rope at the same time. Therefore, never attach more than three straps/ropes to the same fitting and never more than one strap/rope in the same direction.



Alpha-Numeric	DESCRIPTION
A	Forbidden
B	Allowed

Fix tie-down rings to the aircraft floor only at tie-down points or to tie-down tracks.

Distribute the attachment points of the tie-down rings evenly (nearly equal distances) over the length of the piece.

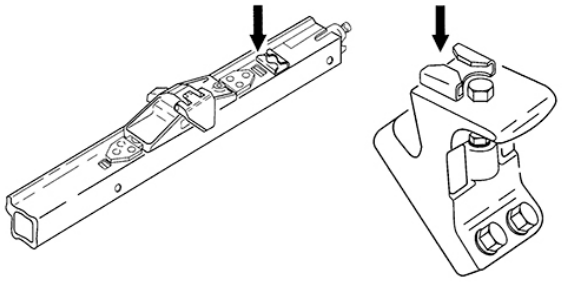


Figure 4.5.7.5a—Example of tie-down attachment points on outboard side lock and side guide

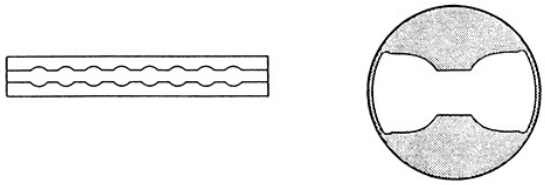


Figure 4.5.7.5b—Example of tie-down attachment points on track and anchor plate

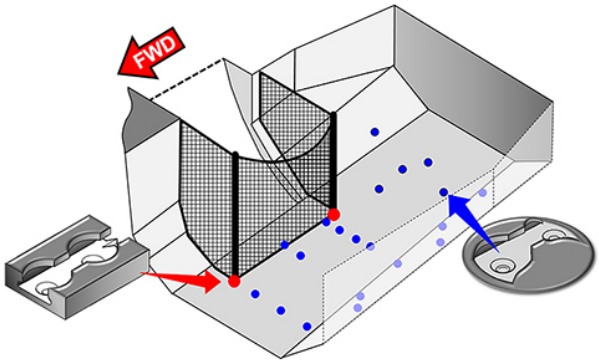


Figure 4.5.7.5c—Example of tie-down attachment points in the bulk compartment

Caution:

Tie-down is forbidden on any part of the aircraft structure, other than those described in Figure 4.5.7.5c, even if equipped with rings or tie-down points.

c. Tie-Down Straps

Use only certified ETSO/TSO C172 tie-down straps.

Fix tie-down straps to the aircraft with their fixed tie-down rings only at dedicated tie-down points or tie-down tracks.

Figure 4.5.7.5d—Example of tie-down straps

d. Tightening

1. Tighten the lashing strongly, but not so strongly that the load or tie-down material is damaged.
2. Make sure all tie-down ropes or straps used for lashing the same piece have the same tension.
3. To protect fragile or sensitive cargo or dangerous goods, use cloth, cardboard or similar material for edge protection.

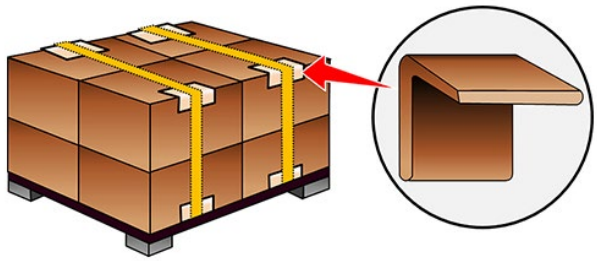


Figure 4.5.7.5e—Protect the edges of fragile or sensitive cargo

e. Sharp Edges

To avoid cutting or grinding tie-down ropes or straps, smoothen sharp edges with a piece of soft material (e.g., cloth, cardboard, plank or similar).

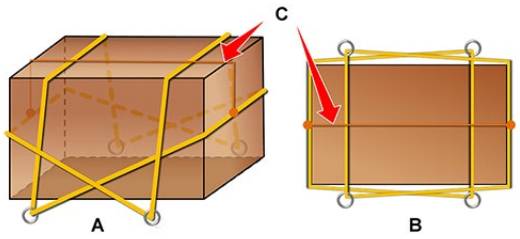
4.5.7.6. STANDARD LASHING

For standard lashing use:

a. Four tie-down rings
b. Four tie-down ropes/straps and one safety rope

1. Two against upward forces
2. One against forward forces
3. One against backward forces
4. One safety rope

The safety rope prevents the tie-down ropes/straps used against forward and backward forces from sliding down.



Alpha-Numeric	DESCRIPTION
A	Isometric View
B	Top View
C	Safety Rope

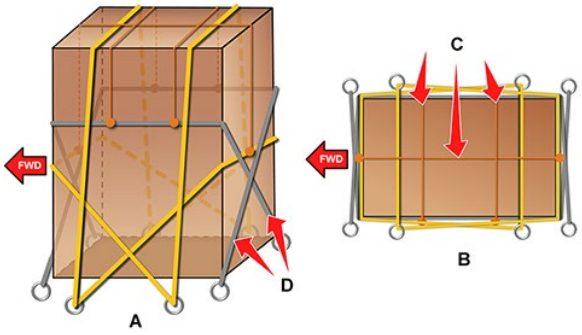
Sideward forces

Sideward forces are normally covered by the standard lashing for upward, forward and aft forces. The rope/straps shall be lashed close to the pieces.

Exception

If a piece is more than twice as high as it is wide:

1. Tie down against sideward forces additionally to the standard lashing
2. Place this additional lashing between half and two-thirds of the height
3. Secure this lashing with two safety ropes to prevent the additional lashing from sliding down



Alpha-Numeric	DESCRIPTION
A	Isometric View
B	Top View
C	Safety Rope
D	Additional Lashing

Barrels

Barrels are difficult to lash because of their round shape and mostly sharp rims.

Use supporting planks for a safe lashing.

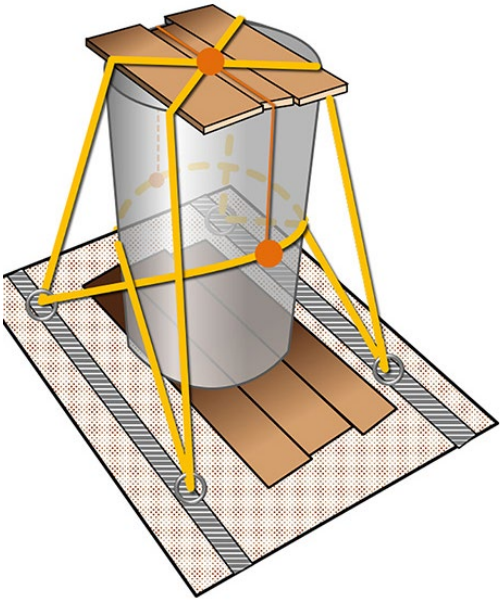


Figure 4.5.7.6—Lash barrels with protective planks

4.5.7.7. SECURING OF DANGEROUS GOODS

a. Handle dangerous goods with utmost care to prevent any damage to persons or goods.
b. Strictly observe all special handling instructions, labels or imprints (e.g., THIS WAY UP) or arrows showing the proper orientation of the package).
c. On a pallet, securing by tie-down is not necessary if all the load on the pallet, including the dangerous goods package, is secured by the pallet net.
d. In a bulk compartment or a container, securing by tie-down is not necessary if the package cannot move horizontally or vertically. The net section or container must be volumetrically full (three-quarters of the height), and the entire floor area must be covered.

Observe the securing requirements as shown in Figures 4.5.7.7:

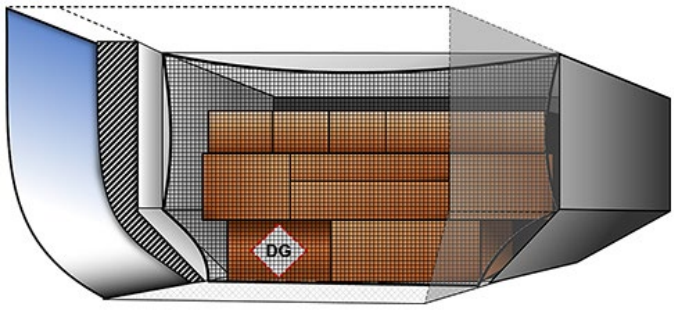


Figure 4.5.7.7a—Example 1

Note: When the net sector in the bulk compartment or a lower deck aircraft container is volumetrically full, including the entire floor area, securing by tie-down is not necessary.

If the entire floor area of a container or lower deck aircraft container is not filled completely with another load, tie down the dangerous goods package to prevent any movement.

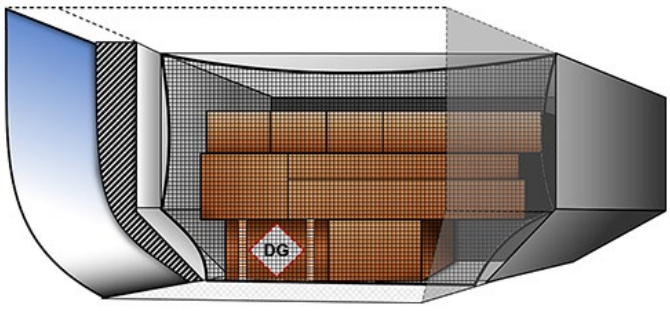


Figure 4.5.7.7b—Example 2

If the net sector in the bulk compartment or container is not volumetrically full, tie-down the dangerous goods package to prevent any movement.

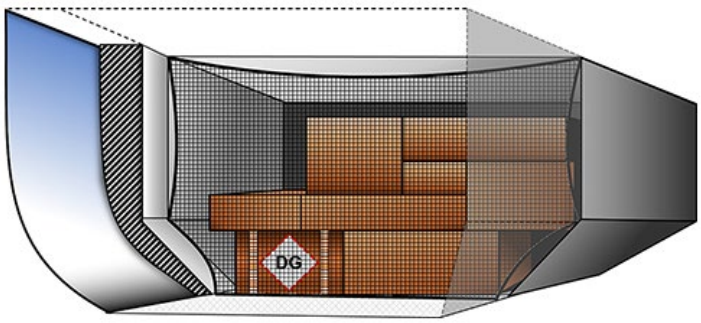


Figure 4.5.7.7c—Example 3

If securing by tie-down in a net sector or container is not possible because of the small size of the package:

Fill the net sector or container as shown in (Figure 4.5.7.7a–Example 1, or put planks on top of the package (see Figure 4.5.7.7d–Example 4) to make securing by tie-down possible.

If neither is possible, do not load the package.

If the net sector in the bulk compartment or container is not volumetrically filled, tie-down of all items is required.

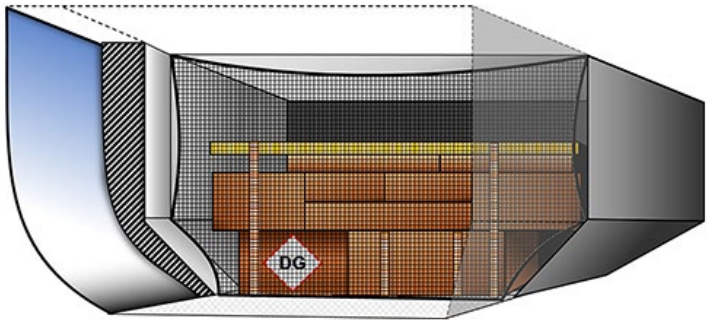


Figure 4.5.7.7d—Example 4

4.5.8. LOAD SPREADING

When the weight of item(s) to be loaded exceeds the maximum floor load per square meter or the maximum floor load per running meter of a compartment, the weight must be spread to prevent damage to the compartment floor. This applies to HEA loads but may also apply to smaller items weighing less than 150 kg (330 lb.). The item must be fully restrained (see figure 4.5.8) and can be spread by making use of wooden boards or beams.

Caution:

Overloading can cause damage to aircraft frames and ribs and consequently can have serious implications for the safety of the aircraft.

The weight should be spread by making use of wooden boards or beams, in which case:

a. The surface to support the weight will be enlarged, or
b. The length will be enlarged

The load spreading instructions shall be in accordance with operating airline requirements. The information will be included on the LIR.

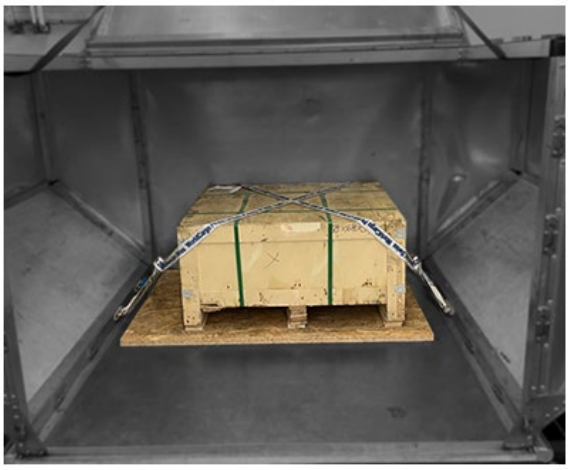


Figure: 4.5.8

4.5.9. AIRCRAFT UNIT LOAD DEVICES

4.5.9.1. GENERAL

ULDs can be divided into two groups:

a. Aircraft containers
b. Aircraft pallets and pallet-net combinations

ULDs can be directly restrained to the aircraft structure by the CLS. Each ULD shall meet minimum technical specifications to ensure safe restraint of the load. These specifications are published in the IATA Unit Load Device Regulations (ULDR).

4.5.9.2. IDENTIFICATION/LABELING OF UNIT LOAD DEVICES

Identification

ULDs shall be marked in accordance with the standard IATA ULD ID Code format (see ULDR SS 40/1), which consists of an ULD Type Code, ULD Serial Number and ULD Owner Code. The standard IATA ULD ID Code format is illustrated in Table 4.5.9.2.

ULD ID Code Composition	ULD Type Code			ULD Serial Number					ULD Owner Code	
ULD ID Code Positions	1	2	3	4	5	6	7	8	9	10
ULD ID Code Format	a	m	m	m	n	n	n	(n)	m	m

Symbol	Description
a	Represents a single alphabetic character (characters A through Z)
n	Represents a single numeric character (numerals 0 through 9)
m	Represents a single character of mixed alpha-numeric
()	Represents an optional character position

Table 4.5.9.2—IATA ULD Code format

All ULDs shall be identified with ULD tags (refer to AHM 420) when loaded.

The preprinted letters (in boxes) indicate the specific application of the ULD tag.

a. Each ULD tag shall be fully completed.
b. One ULD tag shall be placed in the tag holder of a container.
c. A cross-check shall be performed during the loading of the ULDs. The following identification numbers must always be checked to ensure they correspond with each other:

1. ULD ID Code shown on the LIR
2. ULD ID Code shown on the ULD identification tag
3. ULD ID Code marked on the ULD

4.5.9.3. CHECKING ULD CONDITIONS ON THE RAMP

a. Visually Detectable Damage Check

1. Visual checks for any detectable damage to ULD components should be performed during ramp operations to continuously monitor and verify the serviceability of ULDs to ensure only serviceable ULDs are loaded on board aircraft.

Note: Unserviceable ULDs may be loaded onto an aircraft only when expressly allowed by the person responsible for loading supervision. The ULD shall be empty, with limited load and/or other restrictions (e.g., additional tie-down) in accordance with the ULD manufacturer's documentation, such as the Component Maintenance Manual (CMM) and operating airline procedures.

2. Unserviceable ULDs shall be identified and removed from service immediately. Failure to identify and remove unserviceable ULDs from service could:

   i. Cause injury to personnel
   ii. Damage the aircraft structure
   iii. Impact on-time performance
   iv. Damage ULD contents (baggage, cargo or mail)
   v. Affect flight safety

3. If the visually detectable damage to a ULD component is identified during the visual check, refer to that ULD component's corresponding damage limit on the ULD Operational Damage Limits Notice (ODLN) and follow the instructions below:

   i. If damage to a ULD component is within the allowable damage limit, the ULD is still serviceable.
   ii. If damage to a ULD component exceeds the allowable damage limit, the ULD is deemed to be unserviceable.

4. The following list includes, but is not limited to, some typical stages during ramp operations when a visually detectable damage check on ULDs should be performed. An airline or a ground handling services provider (GHSP) may choose to add or reduce occasion(s) to perform ULD visual checks during ramp operations based on its own safety risk assessment and mitigation strategies:
   i. Prior to dispatch to an aircraft

ii. Prior to loading on board an aircraft
iii. When unloading from an aircraft
iv. Whenever a loaded ULD is interlined, interchanged, or otherwise transferred between parties prior to acceptance, including ULD handover between cargo warehouse personnel and ramp personnel

Caution:

Neither the ULD serviceability check nor the visually detectable damage check shall discharge the airline's responsibility for performing ULD airworthiness inspections and ensuring only airworthy ULDs are loaded on board an aircraft.

b. In addition to the visually detectable damage check, the following ULD conditions should also be checked during ramp operations:

1. Check if the container curtain door(s) and pallet nets are closed and latched properly.
2. Check for each of the following defects:

i. Accumulations of snow, water, ice
ii. Evidence of spills or leaks from load
iii. Evidence of damage to load
iv. Evidence of tampering (cuts, tears of plastic foil, etc.) with load

3. At the ULD loader and in the aircraft:

i. Identify the presence of any protective plastic sheet put over the top of a pallet net or container that is not approved by airline operating procedures.
ii. Check for any visible evidence that the load may have moved out of the build contour during transportation.

4. Check if nets and straps are properly tightened without any slack or excess.

c. Unserviceable ULDs:

1) An Unserviceable ULD tag (see AHM 420 Attachment E) must be completed and attached to the unserviceable ULD.
2) DO NOT load unserviceable ULDs on board any aircraft.
3) Inform the operator/owner and return the unserviceable ULD to the cargo warehouse.

d. For Other Defects:

1) Close and secure the container curtain door(s) and pallet net by appropriately trained and qualified personnel in ULD build-up.
2) Remove accumulations of snow, water, ice.
3) Defects such as spill/leak from load, damage to load, or tampering should only be fixed/resolved by appropriately trained and qualified personnel. In cases where the

defect cannot be fixed/resolved on the ramp, the person responsible at the cargo warehouse should be contacted.

Danger:

1. **Do not touch the spill/leak from dangerous goods and immediately inform the person responsible for safety before moving the cargo.**
2. **In cases where tampering evidence is identified, the person responsible for security should also be informed.**

1. Remove and dispose of any protective plastic sheet put over the top of a pallet net or container before loading the ULD into the aircraft.
2. Improper ULD contour or overhang/indent size should only be fixed/resolved by the appropriately trained and qualified personnel in the ULD build-up.
3. For net and strap tension concerns due to the existence of slack or excess, any appropriately trained and qualified personnel in the ULD build-up can make appropriate adjustments to nets and straps to secure the load at any point along the ULD operational procedures.
4. For all other defects identified, contact appropriately trained and qualified personnel to assist with proper resolution in accordance with operating airline procedures.

Note: Training requirements defined in AHM Chapter 1110.

4.5.10. TRANSPORT OF CARGO AND MAIL IN PASSENGER CABIN

Passenger aircraft are not certified to carry cargo on passenger seats or ULDs (pallets or containers) in the passenger cabin secured to the seat tracks.

Before starting such operations, a safety risk assessment shall be performed involving all relevant operational departments (i.e., ground, cargo, cabin, flight, engineering). If required, this type of operation shall be approved by the local authority.

For further guidance on the use of aircraft configured for the carriage of passengers to safely transport cargo in the passenger cabin, refer to IATA Guidance for the Transport of Cargo and Mail on Aircraft Configured for the Carriage of Passengers.

4.6. AIRCRAFT DEPARTURE

4.6.1. AIRCRAFT DEPARTURE - INTRODUCTION

A departure is normally conducted with a dialogue between flight crew and the ground 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 ground personnel in charge of the departure operation shall maintain continuous contact with the flight crew and are responsible for the ground maneuver.

The scope of the following departure procedures is limited to conventional towbar and towbarless (TWL) pushback operations.

Note: The term headset applies whether a wired or wireless interphone system is used.

Other personnel are also involved in the departure process. The number of other personnel and their functions/responsibilities can change depending on:

a. Operating airline procedures
b. Aircraft type
c. GSE used for the maneuver
d. Airport infrastructure
e. Stand configuration

GOM 4.6.2 describes the responsibilities of the main functions involved in the pushback maneuver.

4.6.2. GROUND STAFF MEMEBR RESPONSIBILITIES

4.6.2.1. GROUND STAFF MEMBER RESPONSIBLE FOR DEPARTURE

The responsible ground staff member is defined as the person performing the communications with the flight crew. A responsible ground staff member shall be in charge of every aircraft pushback. This function can be performed by different personnel in different roles and positions. Refer to the operating airline's GOM for the specific assignment of this duty.

The ground staff member responsible for the departure shall:

a. Be in charge of the entire pushback, once clearance to begin pushback has been given by the flight crew.
b. Ensure the pushback tractor and towbar/TWL tractor is suitable for the specific aircraft type.
c. Conduct briefings with all persons involved in the aircraft movement to review and confirm how the aircraft will be maneuvered.
d. Have ultimate responsibility to review pushback procedures based on conditions observed and advise flight crew of any anticipated changes to pushback procedures.

4.6.2.2. PUSHBACK TRACTOR DRIVER

The pushback tractor driver shall:

a. Ensure the pushback tractor and towbar/TWL tractor is suitable for the specific aircraft type.
b. Stand by for clearance-to-push communication from the flight crew or responsible ground staff member or brake operator in case of towing.

Note: When a single person pushback is conducted, the pushback tractor driver shall also carry out the function of the for departure as defined in GOM 4.6.2.1.

4.6.2.3. WING WALKER

The operating airline's GOM establishes requirements for wing walkers. The presence of such personnel may also be controlled or restricted by civil aviation authorities or local airport authorities.

Where applicable, the wing walker or other assist personnel shall:

a. Be under the direction of the responsible ground staff member at all times.
b. Use two marshalling wands, either day wands or illuminated wands for low-visibility operations.

c. Be positioned before and during movement of the aircraft as follows, where applicable and/or permitted:

1. Approximately 1 m (3 ft.) outboard of the wingtip and with a clear view of wingtip clearance and any potential hazards
2. In line with the rearmost main gear wheel
3. Able to maintain visual contact with the person responsible for pushback/towing
4. At a safe distance from the moving aircraft/pushback tractor during the entire pushback
5. Maintain situational awareness to avoid personal injury hazards e.g., moving equipment and vehicles, aircraft, slip, trip and fall hazards such as chocks, cones, GSE, uneven ground, spillages, etc.

Note: See Figure 4.6.2.3 for positioning of wing walkers during pushback.

d. Ensure the aircraft movement path is clear of any obstructions (i.e., other aircraft, vehicles).
e. Provide "Clear to Move Aircraft" clearance signals at all times to the person responsible for pushback by using a distinct pendulum arm motion.
f. Continue to monitor the aircraft path until the aircraft is stopped at the departure point.
g. If at any time during aircraft movement, the wing walkers are unsure or identify an imminent danger, signal the person responsible for pushback with the "STOP" signal.
h. When the aircraft is stopped at the departure point, position themselves either at the 11 o'clock or 1 o'clock position in clear visibility of the flight crew on the terminal side at a safe distance away from the aircraft.
i. Give the "Hold Movement of Aircraft" signal to the flight crew when the visual "Brakes Engaged" signal has been received from the person responsible for pushback.
j. Remain in position until the responsible ground staff member takes over the marshalling clearance of the aircraft.
k. Return to the terminal once marshalling duty has been transferred.

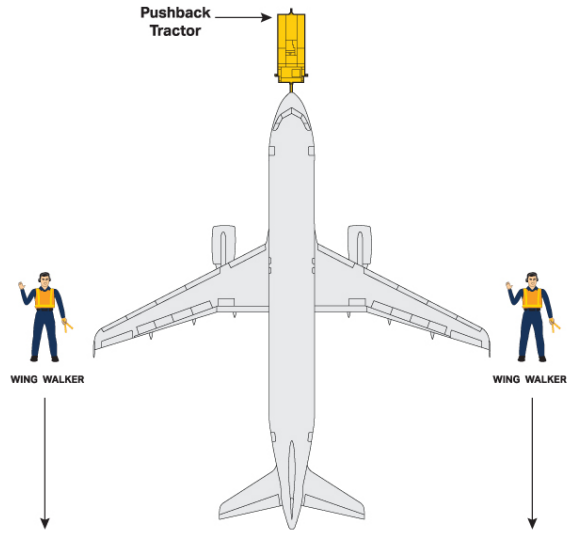


Figure 4.6.2.3—Wing Walker

4.6.3. PREDEPARTURE ACTIVITIES

4.6.3.1. PREDEPARTURE WALKAROUND CHECK

The walkaround should start as soon as possible after all ground servicing activities have been completed. Walk around the entire aircraft at a normal walking pace. The check shall start as close as possible to departure time. If any part of the aircraft still has GSE engaged at the time of the check, or if GSE reengages with the aircraft after the check, the applicable area(s) shall be reinspected.

The predeparture walkaround check shall include the following:

a. The apron is clear of all FOD that may cause aircraft damage or pose a risk.
b. All GSE, including passenger boarding devices, are detached.
c. The stand area is clear of obstructions.
d. GSE and vehicles are positioned clear of the aircraft path.
e. Adequate clearance exists between the aircraft and facilities or fixed obstacles along the aircraft movement path.
f. All aircraft servicing panels and/or hatches are closed and secured.

Exception: External power and headset panels.

g. Cabin and cargo hold access doors are closed and:

1. Handles are flush with the fuselage and, where applicable, all other visible indicators confirm that doors are correctly locked.
2. There is no visible damage on the aircraft, particularly around cabin and cargo hold access doors.

h. Any observed abnormalities on the aircraft (e.g., obvious damage, fluid leakage, unremoved pitot covers) are immediately brought to the attention of the flight crew, maintenance personnel and the person responsible for supervision.
i. Items such as propeller straps and tail stands are removed.
j. Landing gear safety pins are removed.
k. There are no obvious signs of unmarked dents or other skin panel damage.

Notes:

1. In the case of the aircraft returning to the stand, the predeparture walkaround check shall be repeated.
2. It is essential to have adequate lighting when doing the walkaround check. If the lighting is insufficient, use a flashlight.

Caution:

If any of the above conditions or actions are not met, inform the person responsible for supervision, the maintenance department and the flight crew, as this may affect the safety of the intended flight.

4.6.3.2. PREDEPARTURE TABLE

Prior to aircraft movement, the responsible ground staff member (headset operator) shall ascertain that the following requirements are met/carried out:

Legend

TWT–towbar tractor

TWL–towbarless tractor

ACTION	APPLICABLE TO				
	PUSHBACK		TOWING		TAXI OUT
	TWT	TWL	TWT	TWL	
The required pre-departure servicing checks are completed.	✓	✓	✓	✓	✓
Fire protection devices are available and correctly positioned (as per local rules).	✓	✓	✓	✓	✓
The tractor and towbar combination, if applicable, are suitable for the operation, considering the aircraft type and weight as well as weather and surface conditions.	✓	✓	✓	✓	
The nose gear steering bypass pin is installed correctly, or the nose gear steering torque links are disconnected, if applicable, or the nose gear steering mechanisms are set as required for pushback (as applicable to the aircraft type)	✓	✓	✓	✓	
Communication with flight crew/brake operator and responsible ground staff member is established via an interphone system.	✓	✓	✓	✓	✓
Aircraft main landing gear (MLG) chocks are installed, and nose gear chocks are removed, if applicable.	✓	✓	✓	✓	
Aircraft nose gear chocks are installed and MLG chocks removed, if applicable.					
Additional personnel, such as wing walkers, are present, if applicable/required.	✓	✓	✓	✓	
If an air start unit (ASU) is required, check the equipment is correctly positioned and suitable for the operation.	✓	✓			
If an ASU engine start is undertaken, communicate to confirm ASU positioning and engine start sequence with the flight crew.	✓	✓			
All persons not involved in the aircraft departure operation are clear of the departing aircraft, outside the ERA, and remain clear of the aircraft and pushback equipment throughout the pushback maneuver.	✓	✓	✓	✓	✓
The GSE is parked in designated locations outside the ERA, and the intended path of the aircraft remains clear of equipment and other obstacles throughout the pushback maneuver.	✓	✓	✓	✓	✓
The PBB is fully retracted and parked in its designated parking location, if applicable.	✓	✓	✓	✓	✓
The ERA and the path/area that the aircraft will move toward is clear of FOD, and remains so throughout the pushback maneuver, ensuring safe aircraft movement.	✓	✓	✓	✓	✓
The stand surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement.	✓	✓	✓	✓	✓
The ramp area is free of objects/obstacles that may be impacted by the aircraft or may endanger others due to jet blast effects.	✓	✓	✓	✓	✓

ACTION	APPLICABLE TO				
	PUSHBACK		TOWING		TAXI OUT
	TWT	TWL	TWT	TWL	
The air intake and blast areas of the aircraft engines are clear of persons and obstacles, such as GSE.	✓	✓			
All persons involved in the aircraft movement stay well clear of the danger areas around the tractor, landing gear and aircraft engines.	✓	✓	✓		
Flight crew/brake operator confirm that the aircraft parking brake is set.	✓	✓	✓		
Completion of the predeparture table is indicated to the flight crew.	✓	✓	✓		
A qualified brake operator is in the cockpit, where required by operating airline procedures.			✓	✓	
Cross-reference with GOM	4.6.4.2	4.6.4.3			

Note: Where a remote-controlled pushback tractor connected to the nose gear is used, TWL predeparture activities shall apply.

Danger:

It is critical that the responsible ground staff member (headset operator) establishes verbal communication with the flight crew via the aircraft interphone system, as departures using marshalling hand signals without headset communication shall only be conducted in exceptional cases.

4.6.3.3. PREDEPARTURE COMMUNICATION

An aircraft departure shall always be conducted using interphone communications. If the interphone becomes/is unserviceable, use standard hand signals (refer to GOM 3.4.8 for the departure).

a. Connect the Interphone and:

1. Verify the communication system is functional
2. Update flight crew on the progress of the ramp operation

b. Prior to departure, conduct a briefing with the flight crew and the ground staff member responsible for the departure, to:

1. Review departure specifics (e.g., direction of movement, ASU requirement, final positioning, taxi out direction).
2. Review standard hand signals to be used, including emergency signals.

Caution:

Repeat all given instructions or acknowledge them in a manner clearly indicating that they have been understood and will be complied with.

c. Request permission to disconnect ground power, if applicable.
d. Disconnect GPU/FPU after approval is received from flight crew.

Note: The ground personnel responsible for departure should be in continuous communication with the flight crew by interphone.

4.6.4. CONNECTING THE PUSHBACK VEHICLE

4.6.4.1. CONNECTING THE PUSHBACK VEHICLE – GENERAL

a. Prior to connecting the tractor to the aircraft, as per Table 4.6.3.2, the tractor may be parked in front of the aircraft or outside of the ERA, but never behind the wings.
b. Ensure the nose gear steering bypass pin is correctly installed prior to towbar/TWL connection to the aircraft and/or ensure the nose gear steering mechanisms are set as required for pushback (as applicable to the aircraft type).
The steering bypass pin shall be:

1. Labeled with the specific aircraft type(s) for which it can be used.
2. Identified with a "Remove Before Flight" streamer.
3. Checked regularly for proper technical condition, or as per manufacturer instructions.

Note: Each aircraft type has specific requirements for the bypass of the nose gear steering mechanism. Refer to the operating airline's GOM for nose gear steering bypass pin details.

c. Ensure the steering hydraulic system is depressurized or the nose gear steering torque links are disconnected, as applicable for aircraft not fitted with a nose gear steering by-pass system. Coordination with the flight deck would be required to ensure a safe depressurization and re-pressurization of the aircraft hydraulic system.
d. If using chocking option 1 (see GOM 4.2.2 Chock Placement Diagrams) and where required by the aircraft type, prior to connecting the towbar/TWL, confirm that the aircraft parking brake is set.
e. A guide person shall be used to assist in the final approach to the towbar/nose gear when a tractor and towbar is used for the pushback process. When a TWL tractor is used, a guide person shall be used when the vision of the tractor driver is/might be restricted.

4.6.4.2. CONNECTING PUSHBACK TRACTOR AND TOWBAR

a. Where required by aircraft type, remove the chocks from the nose gear and reposition at the main gear (in accordance with GOM 4.2.2 Chock Placement Diagrams option 2. Note: Nose gear wheel chocks may be removed without notification, provided the Main Landing Gear wheel chocks are still positioned.
b. Connect the towbar to the nose gear first.
c. Ensure the towbar connection is secured and a locking pin is in place.
d. Ensure the tractor and towbar are aligned with the centerline of the aircraft while connecting.
e. Raise the towbar so its head is at the same height as the tractor connection.
f. Approach the towbar slowly until the connection aligns with the pushback tractor.
g. Ensure the front wheels of the tractor remain straight and the tractor is in line with the centerline of the aircraft.

h. The pushback tractor shall only be connected to the aircraft once all GSE is detached from the aircraft. Note: With the exception of GPU and ASU which may be left connected.
i. Secure the towbar connection to the pushback tractor.
j. Raise the towbar wheels by releasing pressure on the hydraulic pump.
k. Select the Park or Neutral gear (if no selection for Park) and set the parking brake of the pushback tractor.
l. To minimize the possibility of injury, Ground handling personnel shall:

1. Face the tractor when connecting the towbar to the tractor.
2. Stand with both legs on the same side of the towbar during the connection/disconnection procedure (i.e., do not stand astride/over the towbar).

Note: If using chocking option 1 (see GOM 4.2.2 Chock Placement Diagrams), prior to connecting the towbar, confirm that the aircraft parking brake is set where required by the aircraft type.

4.6.4.3. CONNECTING PUSHBACK TOWBARLESS TRACTOR

a. Ensure the correct aircraft type is selected on the TWL control panel, where applicable and in accordance with TWL operating procedures.
b. On final approach to the aircraft, the tractor shall be properly aligned and correctly positioned.
c. Ensure the aircraft nose wheels are safely locked into the tractor cradle by the tractor locking mechanism.
d. Position the TWL tractor to standby for lifting.
e. Select the Park or Neutral gear (if no selection for park) and set the parking brake of the pushback tractor.
f. Ensure the aircraft is not lifted while any GSE or PBB are connected to the aircraft.

Note: If using chocking option 1 (see GOM 4.2.2 Chock Placement Diagrams), prior to final positioning of the TWL, confirm that the aircraft parking brake is set.

4.6.4.4. CONNECTING REMOTE-CONTROLLED TRACTOR TO NOSE GEAR

a. Ensure the remote control unit's battery is sufficiently charged.
b. Ensure the tractor is sufficiently charged for the task/pushback maneuver.
c. Switch on the remote control unit and ensure it connects to the tractor.

Note: See GOM 4.6.4.3 for other points related to connecting TWL

4.6.5. WHEEL CHOCK REMOVAL

Prior to removal of chocks the responsible ground staff member (headset operator) shall:

a. Via the interphone or hand signals, confirm the aircraft parking brake is set.
b. Check all GSE have been disconnected from the aircraft, except for the GPU and ASU when air start is required.
c. Check the passenger boarding devices have been retracted from the aircraft, if applicable.
d. Check that the pushback tractor and towbar are fully secured to the nose gear and the parking brake is set on the tractor.
e. For TWL tractor operation, check that equipment is fully secured to the NLG and the parking brake is set on the tractor.
f. Give clearance to ground staff members to remove chocks. After removal, chocks shall be placed in their designated location.

Notes:

1. If a chock is stuck and cannot be removed manually, the stuck chock can be removed by moving the aircraft after the aircraft brakes have been released, with precautions and in coordination with the responsible ground staff member for the departure.
2. Once high-wind or icy conditions have passed, any additional chocks that were added to the aircraft may be removed so that chock placement reverts to that for normal conditions.
3. If hand signals are used (i.e., the aircraft interphone system is inoperative), the responsible ground personnel shall seek confirmation that the aircraft parking brake is set prior to removal of the chocks.

4.6.6. DEPARTURE COMMUNICATIONS

4.6.6.1. DEPARTURE COMMUNICATIONS - GENERAL

Departure communications procedures outlined in this section are a basic standard for both pushback and open ramp (taxi out) departures. Certain operators may have specific requirements in their departure communications that vary. If available, refer to the operating airline's GOM; otherwise, this communication standard shall apply. The specific dialogue contained herein does not forbid the exchange of additional important information between flight crew and responsible ground staff member using non-standard phraseology (e.g., request for authorization to disconnect ground support units).

Notes:

1. If the pushback needs to be stopped, the following call shall be made: "Stop Pushback"
2. Where applicable, use "Pull Out" instead "Pushback"

4.6.6.2. DEPARTURE COMMUNICATIONS DIALOGUE

The following dialogue is a sample communication to be used for a departure.

Note: In the case of an aircraft taxi-out, Pushback and Pushback Completed phases are not applicable.

Dialogue between Responsible Ground Staff Member and Flight Crew		
Phase	Ground Staff	Flight Crew
Preperation	INFORM THE FLIGHT CREW ABOUT THE USE OF A TOWBAR OR TWL TRACTOR (if applicable) **Call:** CONFIRM PARKING BRAKE SET **Reply:** STEERING BYPASS PIN INSTALLED/NOSE WHEEL STEERING DEACTIVATED (if applicable)(1) **Reply:** CLEAR TO PRESSURIZE (if applicable)	**Reply:** PARKING BRAKE SET **Call:** CONFIRM STEERING BYPASS PIN INSERTED/NOSE WHEEL STEERING DEACTIVATED (if applicable)(1) **Call:** CONFIRM CLEAR TO PRESSURIZE? (if applicable)
After completion of the predeparture servicing checks Pushback	**Call:** PREDEPARTURE CHECKS COMPLETED **Call:** ELEVATING AIRCRAFT(2) **Call:** READY FOR PUSHBACK(1) **Call:** CONFIRM PARKING BRAKE RELEASED **Call:** COMMENCING PUSHBACK (MENTION AIRCRAFT NOSE DIRECTION, START-UP POINT, PULL FORWARD, ETC.)	**Reply:** STANDBY **Call:** PUSHBACK APPROVED (MENTION AIRCRAFT NOSE DIRECTION, START-UP POINT, PULL FORWARD, ETC.) **Reply:** PARKING BRAKE RELEASED
Engine start	**Call:** CLEAR TO START ENGINES	**Reply:** STARTING ENGINES (MENTION ENGINE START-UP SEQUENCE)

Phase	Ground Staff	Flight Crew
Pushback completed	**Call:** PUSHBACK COMPLETED, SET PARKING BRAKE	**Reply:** PARKING BRAKE SET
Disconnecting	**Reply:** DISCONNECTING, HOLD POSITION AND WAIT FOR HAND SIGNAL ON YOUR LEFT/FRONT/RIGHT (DISPLAY THE STEERING BYPASS PIN (IF APPLICABLE TO THE AIRCRAFT TYPE) TO THE FLIGHT CREW	**Call:** CLEAR TO DISCONNECT **Reply:** HOLDING POSITION AND STANDING BY FOR HAND SIGNAL ON THE LEFT/FRONT/RIGHT

1 Applicable to departures with towbar and TWL tractors

2 If required, applicable to TWL tractors

4.6.6.3. ITEMS TO BE COMMUNICATED BETWEEN GROUND STAFF MEMBER AND FLIGHT CREW

Phase	Task	Responsible Ground Staff Member Action
Departure preparation	**GPU removal**	When instructed by flight crew, remove GPU.
	Towbar/TWL tractor connection	a. Get confirmation that aircraft parking brake is set. b. Get confirmation that the nose wheel steering is depressurized or advise flight crew that the steering bypass pin is inserted, if applicable. c. Connect the towbar. d. Connect the TWL tractor.
	Chock removal	a. Get confirmation from flight crew that aircraft parking brake is set. b. Remove chocks.
	Predeparture check	Advise flight crew that the predeparture check has been completed or communicate any discrepancies.
Engine start	**Starting engines**	When requested by the flight crew, advise when the engines may be started and the start sequence.
	ASU	When requested by the flight crew, signal to the ASU operator to supply the required pressure.
Pushback and engine start	**Brakes**	Get confirmation that the aircraft parking brake has been released.
	Movement of the aircraft (pushback/pull out)	Get permission from flight crew to commence pushback.
	Direction of push/nose	If applicable, ask in which direction the aircraft must be pushed or in which direction the nose should point after pushback.
	Engine start	When requested by the flight crew, advise when the engines may be started.
Pushback completed and engine start completed	**Towbar/TWL tractor disconnect**	a. Get confirmation that the aircraft parking brake is set. b. Disconnect. c. Remove the steering bypass pin, if applicable.
	Headset removal	a. Get permission from the flight crew to disconnect the headset. b. Advise the flight crew to hold position and wait for visual signal at left/front/right of the aircraft.
Departure	**"All Clear" signal**	a. Verify steering bypass pin removal has been completed, if applicable. b. Give the "*All Clear*" signal when the path of the aircraft is clear of all obstacles. c. Get acknowledgement from the flight crew of the "*All Clear*" signal.

4.6.6.4. DEPARTURE COMMUNICATION WITHOUT INTERPHONE

An aircraft departure shall always be conducted using interphone communications. Only if the interphone becomes unserviceable or under extreme circumstances where the interphone is not available, shall the responsible ground staff member and flight crew use conventional hand signals.

Refer to GOM 3.4. for Hand Signals for Aircraft and Technical/Servicing Hand Signals-Ground Staff to Flight Crew and technical hand signals flight.

4.6.6.5. INTERPHONE COMMUNICATION FAILURE

Aircraft pushback requires a communication interphone. If the interphone becomes unserviceable or communication is lost, the following procedure shall be followed:

a. In the case of a single person operation and if no other means of communication are available, stop the movement and immediately request assistance to continue the movement (depending on local situations and regulations).
b. In the case of a multiple person operation, communication with the flight crew will be established using hand signals (See GOM 3.4.7 and 3.4.8). The tractor driver shall be able to receive the visual signals as relayed from the flight crew. Once hand signal communication has been established, the pushback can resume.
c. Notify air traffic control (ATC), via radio if available, and continue the movement in cooperation with ATC, depending on local regulations.

4.6.7. PUSHBACK MANEUVER

4.6.7.1. ANTI-COLLISION LIGHTS

During a standard departure, once all aircraft doors are closed, the flight crew requests pushback clearance from ATC. Once clearance is obtained, the flight crew will switch on the aircraft's anti-collision lights.

Caution:

Anti-collision lights that are switched on are a visual indication to ground staff of imminent engine start-up or aircraft movement. Vehicle traffic shall stop until the aircraft has departed from the area.

Caution:

If the anti-collision lights are switched on unexpectedly (other than in preparation for the departure or towing operation), ground staff shall move away and remain outside the ERA. The responsible ground staff member shall check with the flight crew before resuming ground handling activities.

Caution:

In case of the lower anti-collision light failure, the flight crew shall inform the personnel responsible for the departure operation to inform personnel involved in the operations about the imminent engine startup or aircraft movement.

4.6.7.2. PUSHBACK REQUIREMENTS

a. Prior to the aircraft movement, make sure the parking brake is released and the anti-collision lights are switched on, in accordance with local airport regulations.
b. Headset operator shall signal "Clear to Push" to the pushback tractor driver and wing walkers (if applicable) once the flight crew advises that the aircraft brakes have been released and approval for pushback is given by the flight crew. Note: In the case of single person pushback operation, the pushback operator performs headset functions.
c. Select the appropriate gear on the tractor and slowly begin movement. Start the pushback operation in a straight line.
d. Carry out the pushback maneuver at a pace no greater than 5 km/h or 3 mph (walking speed) and when required, apply the vehicle brakes gently.
e. During the maneuver, the pushback tractor driver shall ensure the taxiway (including other movement areas in the intended aircraft path) is free of other aircraft/equipment/obstacles. If an obstacle is identified, the pushback shall stop immediately until the obstacle is clear.
f. During pushback, ensure the steering turn limits are not exceeded and advise the flight crew if any are exceeded. Damage may occur to the nose gear. Refer to the operating airline's GOM for the specific limits and how they are marked on the aircraft.

Caution:

The flight crew shall be notified immediately in the event any connection between the tractor and the aircraft is lost during aircraft movement.

g. At the end of the maneuver, the aircraft/pushback tractor shall both be correctly aligned with the taxiway centerline.
h. When the pushback maneuver is complete, headset operator will receive the "Vehicle Brakes On/Stop" signal (see GOM 3.4.5.4) from the tractor driver to confirm that the tractor parking brake is set. Prior to the disconnection of the tow bar or towbarless tractor from the aircraft nose gear, headset operator:

1. Request flight crew to set the aircraft parking brake and hold the existing position until final clearance signal to taxi.
2. When confirmation that the aircraft brakes have been set is received from the flight crew:

i. Give the "Vehicle Brakes On/Stop" signal as per GOM 3.4.5.4 to the tractor driver and wing walkers, if applicable. Tractor driver releases the tractor parking brake and puts the gear in neutral to release any pressure on the towbar.
ii. Give authority to disconnect pushback equipment.

4.6.7.3. STAFF SAFETY DURING PUSHBACK MANEUVER

a. Tow Bar/TWL Tractor Operations
1. Throughout the pushback operation, all staff walking on the ramp (including the headset operator when the aircraft is moving) shall remain clear of:
   i. The area on the ground directly under any part of the aircraft (including, but not limited to, the fuselage, wings, stabilizer, engines, nose gear)
   ii. The aircraft's path
   iii. The tractor's path

iv. Engine danger areas

2. The headset operator shall:
   i. Be in visual contact with the tractor driver throughout the pushback
   ii. Avoid walking backwards and maintain situational awareness to reduce the possibility of tripping
   iii. Use a headset cable long enough to operate safely and be allowed freedom of movement while not posing a trip or tangle hazard (not applicable when a wireless headset is used)
   iv. Ensure the headset cable remains clear of aircraft/pushback wheels

3. If the responsible ground staff member is too close to the nose gear or pushback equipment, the tractor driver shall stop the pushback and review the required safety clearance conducted.

b. Remote-Controlled Pushback Operations

When pushback operations are undertaken using remote-controlled pushback equipment connected to the NLG, the responsible ground staff member shall:

1. Stand forward of the aircraft
2. Follow its movements and always be in sight of the flight crew
3. Stay outside the engine's intake/suction area and wheel path of the aircraft during the entire pushback maneuver
4. Maintain sufficient clearance between the equipment and themselves throughout the pushback maneuver, where the pushback equipment is connected to the NLG
5. Be in continuous communication with the flight crew via the interphone system

4.6.7.4. PUSHBACK AND PULL FORWARD

When a pull forward maneuver is performed after a pushback maneuver, particular attention must be paid to the end of the pushback maneuver and during the whole pull forward maneuver. To prevent the aircraft from overtaking/pushing the pushback vehicle during the pull forward phase, the following precautions shall be applied:

a. The aircraft engines shall be at idle thrust during all of the pushback/pull forward maneuver.

Note: If the requirement to pull forward is known in advance, consider not starting the engines until the pull forward maneuver is completed.

a. The pull forward maneuver shall be performed with the pushback vehicle in the lowest gear available.
b. Braking shall be performed smoothly and without jerks.
c. The flight crew shall be alerted immediately to stop the aircraft using gentle braking if aircraft control cannot be ensured/maintained from the pushback vehicle.

Notes: The following factors increase the risk that the aircraft will overtake/push the pushback vehicle and shall be, therefore, taken into account:

1. Aircraft type and number of engines started/running
2. Slope of the parking stand and taxiway
3. Use of a tractor and towbar to undertake the pushback/pull forward maneuver
4. Adverse weather conditions

Caution:

Care shall be taken to avoid a jackknife situation between the aircraft and the pushback vehicle due to asymmetric thrust from the aircraft (one engine running) during the transition from push to pull or vice versa. Do not exceed the manufacturer's maximum tow angles.

Danger:

If the aircraft overtakes/pushes the pushback vehicle, the responsible ground staff member shall ensure they stay well clear of the path of the pushback vehicle and the aircraft NLG wheels.

Caution:

Flight crew and aircraft maintenance personnel must be informed if the aircraft overtakes/pushes the pushback vehicle, as both the pushback vehicle and the aircraft NLG may be damaged by the incident.

To relieve torsional stresses applied to the landing gear components and tires, move the aircraft in a straight line for a few meters to ensure the nose wheels are in the straight-ahead position when completing the pushback maneuver.

Danger:

If the nose wheels are not in the centered position, they can turn quickly to their centered position when the steering bypass pin is removed. This can result in personnel injury and aircraft damage.

4.6.7.5. MANEUVERING DURING WINTERY OR SLIPPERY CONDITIONS

During adverse weather conditions (e.g., fog, rain, ice, snow), visibility and traction will be affected. The tractor driver shall reduce and adapt vehicle speed as required by the current conditions. When maneuvering the aircraft on slippery apron surfaces, extreme caution is required to avoid losing control of the tractor due to skidding, which may also lead to jackknifing (where the tractor is pushed around by the aircraft in an uncontrolled movement). Many elements can contribute to the hazards involved (i.e., strong winds, slippery road surfaces, pavement slopes). Therefore, the following minimum precautions must be observed:

a. Avoid sudden turns, deceleration or acceleration.
b. Except when using an ASU, do not start aircraft engines unless:

1. The condition of the pavement is such that reasonable traction is ensured
2. The aircraft parking brake is set
3. The aircraft is disconnected from the tow tractor/TWL tractor

4.6.7.6. MANEUVERING DURING LOW-VISIBILITY CONDITIONS

a. Airport operators are responsible for developing low-visibility procedures that are relevant for the airport.
b. Ground handling personnel shall be trained/authorized, as appropriate, prior to undertaking low-visibility aircraft ground movement operations.
c. Ground handling personnel shall observe the movement limitations and other regulations applicable to the airport's low-visibility procedures at all times.
d. Pushback tractors should be equipped with an airfield map, where this is available.
e. If there is any doubt as to the exact position of the pushback tractor/aircraft, the tractor driver shall stop the tractor/aircraft and inform the air traffic controller (ATC) immediately.

Caution:

The responsible for the departure (headset operator) should be positioned outside the tractor at safety distance (refer to GOM 4.6.7.3) during:

1. **Low-visibility conditions (heavy rain, fog, bad lighting)**
2. **Lack of sufficiently visible markings**
3. **Obstructions behind the pushback (e.g., GSE, light post)**

4.6.8. ENGINE START

4.6.8.1. COMMUNICATION DURING ENGINE START

Coordinate the engine starting sequence with the flight crew by conducting a predeparture briefing and refer to the operating airline's GOM for specific engine start procedures.

a. During the engine start, communicate with the flight crew only if the responsible ground staff member observes circumstances that require immediate notification and action by the flight crew.
b. When starting up with an ASU, supply the pressure at the request of the flight crew.
c. If ramp conditions are below standard for a normal pushback (e.g., hazards, obstacles, slippery, icy), the in charge of pushback will inform the flight crew that engine start clearances will not be given until either:

1. The aircraft is moving over an area of the ramp where the conditions are safe for an engine start, or
2. The pushback has been completed, the aircraft has come to a complete stop and the parking brake has been set.

Note: From the flight crew seat facing forward, the engine on the left is referenced as engine number one.

4.6.8.2. ENGINE START USING AN AIR START UNIT

a. Only personnel and equipment involved in engine starting or aircraft pushback are permitted within the ERA during engine start.
b. Personnel and equipment involved in the engine start shall remain clear of engine danger areas.
c. Establish communications with the flight crew and confirm the total number of engines to be started, the engine start sequence to be used, the number of ASUs being used and their positioning.
d. Advise the engine start sequence to the ASU operator(s) and any other ground staff.
e. Where possible, the ASU should be positioned on the opposite side of the aircraft to the engine being started.
f. The ASU shall be positioned in accordance with the following to prevent damage to the aircraft and personal injury.

1. It will not hamper other ramp operations, such as loading and fuelling.
2. It is parked outside the engine danger areas (if possible).
3. It is parked at least 2 metres from the aircraft.
4. The towbar is directed away from the aircraft and coupled to the tractor to simplify its removal after engine start-up (towed ASU).
5. It could be easily removed after engine start-up, avoiding the engine danger areas.
6. The exhaust pipe of the unit is directed away from the aircraft fuselage and wing.

g. When connecting the air supply hose to the aircraft, ensure that:

1. The air supply hose is laid in such a way as to avoid any twists that could affect the air flow.
2. The aircraft receptacle is free from FOD or any fluid.
3. Ensure that the air supply hose coupling is firmly attached to the aircraft connector and pressurize the ASU after consulting the flight crew.

Caution:

If the ASU is positioned within an engine danger area, ensure that this engine will only be started after disconnection/removal of the ASU.

h. If the aircraft is to be pushed back, connect the pushback tractor and set the tractor's parking brake, where this is possible without disconnecting ground electrical power.
i. If a pushback tractor is not connected, position a chock in front of the nose wheel.
j. Confirm with the flight crew that the aircraft parking brake is set, then remove main gear chocks.
k. The ASU operator shall ensure the unit is ready to supply air pressure.
l. The headset operator shall inform the flight crew that the ground crew are ready for engine start.
m. Prepare for engine(s) start (see GOM 4.6.6.2 Departure Communication Dialogue and Signals, for communication requirements).
n. When engine start is complete, the headset operator shall signal the ASU and ground power operator(s) to disconnect the ASU and remove ground power.
o. Disconnect the ASU hose(s).
p. Close and latch external air start and electrical panels.

Note: Some aircraft types may require other equipment such as GPU to start the engine in case of APU failure. Refer to operating airline procedures.

Danger:

When connecting and disconnecting ASU hose(s), walk directly underneath the fuselage, or close alongside it, keeping clear of engine danger areas.

4.6.8.3. ENGINE START USING CROSS-BLEED

Engine start using cross-bleed can only be performed once the pushback has been completed, the aircraft brakes have been engaged, and the area around the aircraft is clear.

Caution:

With engine(s) above idle thrust, blast and suction effects are greater.

4.6.8.4. COMMUNICATION DURING FIRE

a. Engine Fire
The flight crew normally detects an engine or APU fire and will take action using the engine/APU fire extinguishing system. However, the responsible ground staff member shall alert the flight crew immediately via the headset if flames are noticed from the engine or engine pylon. If a headset is not available, the appropriate "Fire" hand signal must be used (see GOM 3.4.7.10).

b. Engine Tailpipe/Exhaust Fire
If flames from the engine tailpipe are noticed during engine starting, the responsible ground staff member shall alert the flight crew immediately, as such a fire might not be detectable via temperature sensors and/or fire warning systems in the aircraft.

Caution:

Do not fight engine fires with fire extinguishers on the ground when the flight crew is in the flight deck. The flight crew will take all necessary action.

4.6.9. PUSHBACK DISCONNECTION

4.6.9.1. PUSHBACK TRACTOR AND TOW BAR DISCONNECTION

a. The responsible ground staff member shall remove the tow pin securing the towbar to the pushback tractor.
b. The Towbar shall be disconnected from the tractor before disconnecting from the aircraft (except where the towbar is specifically designed to be disconnected from the aircraft first).
c. The pushback tractor driver shall check that other personnel are clear of the intended travel path and slowly drive the pushback tractor to a position in the aircraft's path and visible to the flight crew, if possible, ready for the towbar to be reconnected.

d. The responsible ground staff member shall disconnect the towbar from the NLG and reconnect to the pushback tractor and move clear of the pushback tractor, in view of the driver.
e. The responsible ground staff member shall give an "OK" signal to the pushback driver to confirm that the towbar is reconnected, and it is clear to drive away.
f. The pushback driver shall check that other staff are clear of the intended travel path and slowly drive the pushback tractor to a position visible to the flight crew until the responsible ground staff member on the interphone has disconnected and is in view of the flight crew.

Note: Ensure the towbar is disconnected from the tractor before disconnecting from the aircraft (except where the towbar is specifically designed to be disconnected from the aircraft first).

4.6.9.2. TOW BARLESS TRACTOR/REMOTE_CONTROLLED TRACTOR DISCONNECTION

a. The pushback driver shall ensure the tractor wheels are centralized and lower the aircraft nosewheel and open the tractor cradle.
b. The pushback driver shall check that other personnel are clear of the intended travel path and slowly drive the pushback tractor to a position in the aircraft's path and visible to the flight crew, ensuring that the wheel cradle is completely clear of the aircraft NLG before commencing a turn.
c. The pushback driver shall rotate the driver's seat to the direction ready to drive away, if applicable.
d. The pushback driver shall remain in a position visible to the flight crew until the responsible ground staff member on the interphone has disconnected and is in view of the flight crew.

4.6.10. PUSHBACK COMPLETION

Pushback completion includes repositioning the pushback tractor, removing the nose gear steering bypass pin and displaying the steering bypass pin to flight crew, if equipped:

a. Remove the nose gear steering bypass pin and/or ensure the nose gear steering mechanisms are set to normal conditions for taxiing (as applicable to the aircraft type).
b. If previously disconnected, reconnect the torque link and inform flight crew.
c. Complete the headset communication and, after receiving flight crew approval, disconnect the headset and close the access panel (if applicable to the aircraft type).
d. Move clear of the aircraft to a safe position visible to the flight crew and away from its intended path.
e. Display the steering bypass pin to the flight crew (if applicable to aircraft type).
f. Give the "All Clear" signal (see GOM 3.4.9.6) once eye contact has been made with the flight crew and they are expecting the signal. In low-light conditions, the flight crew will turn on the interior lights of the flight deck.
g. Remain in position until an acknowledgement from the flight crew is received.
h. Drive the tractor back to the terminal, the appropriate holding position, or to the next task.

Danger:

If the nose wheels are not in the centered position, they can turn quickly to their centered position when the steering bypass pin is removed. Personnel injury and/or aircraft damage could result.

Do not disconnect the interphone communication cable until the towbar or TWL tractor has been disconnected from the nose gear.

Danger:

After disconnection of the headset, no attempt shall be made to approach the aircraft unless cleared by the flight crew to do so via hand signals.

4.6.11. INCIDENTS DURING PUSHBACK

4.6.11.1. INCIDENTS DURING PUSHBACK INVOLVING PUSHBACK TRACTOR/TOW BAR OR TOW BARLESS TRACTOR

The list of incidents below outlines the recommended actions to be undertaken immediately by flight crew and/or tractor drivers in the event of an incident during the pushback operation. The list of incidents is not exhaustive, and the recommended actions should only be applied if they are deemed the safest course of action given the exact circumstances of the incident. If airport and/or operating airline procedures differ from the recommended actions below, those shall be followed.

Flight Crew	Tractor Driver
Tractor Failure	
a. Inform ATC. b. Apply the aircraft parking brake. c. Listen to VHF and wait for assistance. d. Relay information from ATC to headset operator.	a. Stop aircraft/tractor set. b. Apply tractor parking brake. c. Inform the flight crew. d. Contact supervision and equipment maintenance to advise of the situation, as required. e. Follow instructions received from headset operator, as applicable. f. If the TWL/towbar connection with the tractor needs to be reset (i.e., removed and reconnected), the aircraft shall be chocked while the tractor is being replaced.
Tractor/Aircraft Separation	
a. Apply the aircraft brakes. b. As soon as the aircraft is at a standstill, apply the aircraft parking brake before releasing the pedal. c. Inform ATC. d. Relay information received from ATC to headset operator, if applicable.	a. Do not apply tractor brakes. b. Inform the flight crew of separation. c. Follow the aircraft path attentively and stop the tractor according to the aircraft position. d. Apply the tractor parking brake. e. Confirm the aircraft parking brake is set then chock the aircraft. f. Assess the reason for the separation. g. Contact supervision, equipment maintenance and aircraft maintenance to advise of the situation, as required. h. Follow instructions and/or complete pushback maneuver, as applicable.
Tow Bar/Shear Pin Failure (remains attached to the aircraft)	
a. Apply the aircraft parking brake. b. Inform ATC. c. Relay information received from ATC to headset operator, if applicable.	a. Stop aircraft/tractor set. b. Apply the tractor parking brake. c. Inform the flight crew of the towbar/shear pin failure. d. Contact supervision, equipment maintenance and aircraft maintenance to advise of the situation, as required. e. Chock the aircraft and replace the towbar. f. Complete the pushback maneuver.
Pushback Tractor Fire	
a. Inform ATC and headset operator. b. Apply the aircraft parking brake. c. Determine the need for aircraft emergency evacuation and confirm to ATC and headset operator.	a. Inform the flight crew. b. Stop aircraft/tractor set immediately. c. Conduct an assessment of the situation and consider tackling the fire with the onboard tractor firefighting equipment only if it is deemed safe to do so. d. Consider disconnecting and moving the tractor to a safe distance from the aircraft, if deemed safe and appropriate to do so. e. Contact supervision, equipment maintenance and emergency services to advise of the situation, as required. f. If flight crew confirm emergency evacuation, assist in the evacuation as far as is possible/practical by directing passengers/crew toward a safe location.

Aircraft Fire	
a. Inform ATC and headset operator. b. Apply the aircraft parking brake. c. Execute onboard emergency procedures.	a. Stop aircraft/tractor set immediately. b. Inform the flight crew. c. If safe to do so, disconnect and move the tractor to a safe distance from the aircraft, where possible. d. If safe to do so, headset operator should maintain communication with the flight crew and follow instructions. e. Contact supervision and emergency services to advise of the situation, as required. f. If flight crew confirm emergency evacuation, assist in the evacuation as far as is possible/practical by directing passengers/crew toward a safe location.
Accident with Other Aircraft or Vehicle	
a. Contact ATC stating position and nature of the accident. b. Listen to VHF and wait for assistance. c. Relay information received from ATC to headset operator, if applicable.	a. Stop aircraft/tractor set immediately. b. Apply tractor parking brake. c. Inform the flight crew. d. Contact supervision, aircraft maintenance, equipment maintenance and emergency services to advise of the situation, as required. e. Follow instructions received from the headset operator and/or wait for assistance. f. Do not disconnect the tractor unless specifically instructed to do so by the headset operator and/or ATC. g. If disconnecting the tractor, the aircraft must be chocked.

Interphone Communication Failure
If during the pushback operation the interphone fails, the aircraft must be immediately stopped, and an alternate means of communication established before continuing. If this is not possible, assistance must be requested.
Visual Contact with the Wing Walkers Is Lost (if used)
In the event that the tractor driver is unable to establish visual contact with one or both of the wing walkers, when used, the pushback shall be stopped and not recommence until visual contact is reestablished.

4.6.12. REESTABLISHING COMMUNICATION AFTER DEPARTURE

4.6.12.1. INTRODUCTION

The following procedure is to be used when the responsible ground staff member or flight crew need to reestablish interphone communication after it has been disconnected.

4.6.12.2. INITIATED FROM THE FLIGT DECK

The flight crew sets the parking brake and re-establishes communication with the responsible ground staff member via a company channel or ATC. If visual communication with the responsible ground staff member is still established, visual signals may be used.

4.6.12.3. INITIATED FROM THE GROUND

If the responsible ground staff member needs to reestablish communication with the aircraft after dispatch, do not approach the aircraft. If communication cannot be established using hand signals, make contact via a company channel or ATC.

When preparing to reestablish communication with the aircraft, the responsible ground staff member shall take the following precautions:

a. Make sure the responsible ground staff member has been seen by the flight crew and the intention to approach the aircraft to reestablish interphone communication is understood.
b. Approach the aircraft from the direction where visual contact with the flight crew is maintained for as long as possible.
c. Only the responsible ground staff member establishing the interphone communication shall approach the aircraft.
d. Stay outside the aircraft's engine danger areas when approaching the aircraft.
e. If possible, position the pushback tractor in front of the aircraft in clear view of the flight crew to act as a safety barrier and prevent premature movement of the aircraft.

Caution:

For safety reasons, the interphone communication system cannot be used when there is thunderstorm activity over the airport as there is a risk of electrical discharges between the aircraft and the interphone system. Under these conditions, communication headsets cannot be worn.

4.7. OPEN RAMP DEPARTURE

An open ramp is a taxi-in and taxi-out operation area. In some locations, the aircraft may be towed from an open ramp to a taxiway, prior to engine start.

a. Complete all predeparture checks.
b. Refer to Departure Communication in GOM 4.6.6.2 and follow the required phases of dialogue.
c. Ensure all personnel and equipment are clear of the aircraft and behind the ERA.
d. Position for marshalling in an area behind the ERA while being in clear view of the flight crew on either side of the aircraft, depending on facility.

4.8. AIRCRAFT POWERBACK OPERATIONS

Aircraft powerback is not common practice; therefore, it shall only be carried out within the limitations set out by, and with the approval of, the respective local authorities. It shall be conducted based on the risk assessment process and in accordance with specific operating airline procedures at all times, taking into consideration the following recommendations:

a. Ground staff members required for powerback (e.g., marshaller, wing walkers).
b. The air intake and blast areas of the aircraft engines are clear of personnel and obstacles, such as GSE.
c. Identifying the person in charge of the powerback process.
d. Wired headset shall not be used for powerback operations.
e. The ground staff members engaged in powerback operations shall wear, in addition to their normal PPE, protective goggles.
f. If an ASU is required, check that the equipment is correctly positioned and suitable for the operation.
g. If an engine start with ASU is undertaken, communicate to confirm ASU positioning and engine start sequence with the flight crew.
h. Powerback operations shall not be conducted if any one of the following conditions exist:

1. The airport does not authorize powerback operations.
2. The departure gate is not approved for powerback operations.
3. If any member of the ground staff is not properly protected.
4. The entire area of the operation is not adequately illuminated.
5. Visibility is restricted due to weather conditions.
6. An accumulation of ice, snow, slush or any other obstruction is on the apron.
7. Verbal agreement is not reached between the responsible ground staff member and the flight crew.

4.9. AIRCRAFT TOWING

4.9.1. AIRCRAFT TOWING - INTRODUCTION

Aircraft towing may be carried out for three reasons:

a. Maintenance Towing
   Towing an aircraft without passengers, without cargo and with minimum fuel on board.
b. Operational/Dispatch Towing
   Towing an aircraft loaded with passengers and/or fuel and/or cargo to/from the terminal gate or parking area to/from a remote location.

Note: Operational Towing is not allowed on certain aircraft types. Refer to airline's GOM.

c. Repositioning Towing
   Movement of an aircraft to/from a remote parking area with/without cargo or fuel.

4.9.2. GROUND STAFF MEMBER RESPONSIBILITIES

4.9.2.1. RESPONSIBLE GROUND STAFF MEMBER FOR TOWING

The responsible ground staff member is defined as the person who has overall responsibility for the towing maneuver and is normally the pushback tractor driver, although the function may be performed by different ground staff members in different roles. Refer to the operating airline's GOM for the specific assignment of this duty.

The responsible ground staff member in charge of each towing maneuver shall check to ensure all requirements for the towing operation are met prior to commencing towing operations.

Note:

See GOM 4.6.2.2 Pushback Tractor Driver for responsibilities.

See GOM 4.6.2.3 Wing Walker for responsibilities.

4.9.2.2. BRAKE OPERATOR

Where applicable, in accordance with local procedures, the brake operator shall:

a. Be responsible for communication with ATC.
b. Complete a flight deck checklist for towing (refer to the operating airline's GOM).
c. Ensure all aircraft doors are closed by authorized personnel.
d. During towing, the brake operator must be seated with the seat belt fastened.
e. Apply the "Brakes On" and "Brakes Off". procedures in coordination with the headset operator.
f. Switch on and switch off the external anti-collision lights of the aircraft.
g. Position the seat in such a way that the brakes can be easily applied when required.
h. Inform the headset operator immediately if potential contact with any object(s) is detected.

i. Only apply the brakes during the tow when instructed by the headset operator/tractor operator or when it is clear the aircraft has become separated from the tractor.

Notes:

1. For procedures related to incidents during towing (see GOM 4.9.5).
2. Presence on board of staff, other than the brake operator, is forbidden throughout the maintenance or repositioning towing operations, except for flight crew and maintenance staff. The brake operator must inform them that they must be seated with the seat belt fastened and must follow his safety orders if necessary.

4.9.2.3. HEADSET OPERATOR

The headset operator is responsible for communications with the brake operator and/or VHF operator.

4.9.2.4. VHF OPERATOR

The very high frequency (VHF) operator is responsible for communications with ATC and/or ground movement control (GMC).

Note: The VHF operator may be positioned in the pushback tractor or on the flight deck depending on the ground staff member functions carrying out the towing maneuver.

4.9.3. PRE-TOWING ACTIVITIES

4.9.3.1. PRE-TOWING ACTIVITIES - GENERAL

The following requirements shall be met to perform an aircraft tow:

a. Carry out a predeparture walkaround in accordance with GOM 4.6.3.1 .
b. Carry out the requirements, as identified in the predeparture table in GOM 4.6.3.2 , that are relevant to the towing maneuver.
c. Make sure the flight crew or a qualified brake operator (VHF operator where required) is on the flight deck, if applicable.
d. Communication shall be established between the headset operator and the flight crew, brake operator (VHF operator, where required), if applicable.
e. The responsible ground staff member shall conduct a briefing with all persons involved in the aircraft movement to review and confirm how the aircraft will be maneuvered.
f. Ensure the hydraulic system pressure for aircraft braking and/or brake accumulator is within the required pressure range. Refer to the operating airline's GOM for each aircraft type for details.
g. Ensure any electrical systems required for towing are energized.
h. Ensure all landing gear safety pins are installed. After the tow, ensure all pins are removed and stowed. Refer to the operating airline's GOM regarding landing gear safety pin responsibilities and requirements.
i. Connect the pushback tractor/equipment in accordance with the relevant instructions contained in GOM 4.6.4 .
j. Remove the wheel chocks once ready to do so in accordance with GOM 4.6.5 .

Caution:

Inform the brake/VHF operator, headset operator and/or maintenance department for technical inspection if anyone:

1. **Observes any type of excessive fluid leakage.**
2. **Notices any signs of unmarked aircraft damage.**
3. **Observes any fault, failure, malfunction or defect that may affect the safe operation of the aircraft for the intended flight.**

4.9.3.2. PRE-TOWING PREPERATION

The following checklist is to be used in preparation for an aircraft tow:

Action	Performed by	
	Brake Operator	Tractor Driver
Apply the flight deck checklist for towing. Refer to the operating airline's GOM for details.	✓	
Test the means of communication between the tractor driver and brake operator.	✓	✓
Insert the steering bypass pin or deactivate steering as applicable to the aircraft type.	✓	✓
Give permission to connect the towbar and tractor or TWL tractor after applying the aircraft parking brake.	✓	
Install the landing gear safety pins, if required by operating airline procedures.	✓	✓
Connect the towbar, first to the aircraft, then to the tractor and set the parking brake.		✓
Before connecting the TWL tractor, ensure the aircraft MLG are symmetrically chocked.		✓
Connect the TWL tractor and set the parking brake.		✓
Once all GSE has been cleared away from the aircraft, remove or check removal of aircraft chocks.		✓
Ensure the aircraft is clearly visible to other parties according to local regulations, especially after dark (e.g., switch on external anti-collision lights).	✓	
Contact the ATC for clearance to start moving the aircraft (depending on local regulations).	✓	✓
After receiving clearance, release the aircraft parking brake.	✓	
Give clearance and instruction to the tractor driver to start moving the aircraft.	✓	
Request confirmation from the brake operator that the aircraft parking brake has been released.		✓
Conduct tow.		✓

4.9.3.3. TOWING COMMUNICATIONS

An aircraft towing maneuver shall always be conducted using interphone communications or hand signals when the brake/VHF operator is present. Certain airlines may have specific requirements for their towing communications that may vary from those described below. If available, refer to the operating airline's GOM; otherwise, this communication standard shall apply. The specific dialogue contained herein does not forbid the exchange of additional important information between the brake/VHF operator and ground staff using non-standard phraseology (e.g., request for authorization to disconnect ground support units).

Additionally, two-way radio communication shall be maintained between aircraft/tractor set and ATC, except when under escort by an airport operations or emergency vehicle. Always follow local airport regulations for communication and aircraft movement operations.

Dialogue between Ground Staff and Brake/VHF Operator		
Phase	Ground Staff	Brake/VHF Operator
Predeparture check	Call: CONFIRM PARKING BRAKE SET	
		Reply: PARKING BRAKE SET
		Call: CONFIRM STEERING BYPASS PIN INSERTED/NOSE WHEEL STEERING DEACTIVATED/LANDING GEAR SAFETY PINS (if applicable)
	Reply: STEERING BYPASS PIN INSTALLED/NOSE WHEEL STEERING DEACTIVATED/LANDING GEAR SAFETY PINS (if applicable)	
		Call: CONFIRM CLEAR TO PRESSURIZE (if applicable)
	Reply: CLEAR TO PRESSURIZE (if required)	
	Call: Request permission to connect the towbar and tractor or TWL tractor	
		Call: CLEAR TO CONNECT (towbar and tractor or TWL tractor)
	Call: CONNECTING	
After completion of the predeparture check	Call: PREDEPARTURE CHECKS COMPLETED (1)	
		Reply: ROGER
	Call: ELEVATING AIRCRAFT (TWL tractor)	
	Call: READY FOR TOWING	
		Reply: STANDBY

Towing	REQUEST TOW (company name, aircraft type) FROM (location) TO (location) (2) Call: CONFIRM PARKING BRAKE RELEASED Call: COMMENCING TOWING (mention specific routing to be followed)	Call: TOW APPROVED VIA (mention specific routing to be followed). Reply: PARKING BRAKE RELEASED
Towing completed	Call: TOWING COMPLETED, SET PARKING BRAKE	Reply: PARKING BRAKE SET
Disconnecting	Call: AIRCRAFT CHOCKED Reply: DISCONNECTING Call: TOWBAR/TRACTOR DISCONNECTED	Call: CLEAR TO DISCONNECT

1 Carry out a check in accordance with specifications in the predeparture table in GOM 4.6.3.2 that are relevant to the towing maneuver.

2 Transmission from ground staff member depends on local regulations.

Caution:

All given instructions must be read back or acknowledged in a manner clearly indicating that they have been understood and will be complied with.

Caution:

When interphone communication is not possible, standard hand signals must be used for communication between the tractor driver and brake operator. Such communication may occur only when the aircraft has stopped.

4.9.4. TOWING MANEUVER

4.9.4.1. TOWING MANEUVER - GENERAL

See GOM 4.6.7 for pushback phase of the towing maneuver.

a. Use relevant apron lines as guidance during maneuvering to ensure safe obstacle clearances. Be aware of the size of the towed aircraft.
b. Keep a minimum safety distance between vehicles to allow sufficient space to stop. Where required, apply the pushback tug brakes gently.
c. Stop 50 m (55 yd.) before a taxiway intersection if a stop is required.

d. Relieve torsional stresses applied to the landing gear components and tires by moving the aircraft in a straight line for a few meters to ensure the nose wheels are in the straight-ahead position when arriving at the allocated/relevant parking position.

4.9.4.2. TOWING SPEEDS

Aircraft weight, tractor performance and airfield topography can affect towing speeds. Towing speeds shall be kept to a minimum and shall not exceed the towing speed limit as regulated by the towing equipment, aircraft and airport.

If requested by ATC/GMC to "Expedite" due to a live runway crossing, ATC must be informed if this is not possible. ATC/GMC shall also be informed if towing speeds are restricted when towing on live taxiways, as this can lead to congestion on the airfield.

4.9.4.3. TOWING LIMITS

Fuel and other loads can affect an aircraft's balance. To avoid tail tipping during towing, ensure the actual center of gravity of the aircraft is forward of the critical center of gravity. If unable to determine this, the responsible ground staff member must request assistance from qualified weight and balance personnel of the operating airline.

Notes: For information relating to requirements and precautions that shall be taken when aircraft towing maneuvering takes place during adverse conditions, refer to the following sections, as applicable:

1. Wintery or Slippery Conditions (see GOM 4.6.7.5)
2. Low-Visibility Conditions (see GOM 4.6.7.6)

4.9.4.4. TOWING ONTO PARKING STAND

Immediately prior to the aircraft being towed onto the stand or gate, the responsible ground staff member shall check and confirm that the area is ready (e.g., clear of obstacles, equipment, FOD, wing walkers, if required).

4.9.4.5. MOVEMENT INTO/OUT OF HANGARS

a. Only those ground staff members trained and qualified in the movement of aircraft into/out of hangars shall perform this operation and a person in charge of the operation must be designated.
b. Sufficient ground staff (wing/tail walkers) shall be assigned to the operation to ensure clearances between the aircraft and objects in the hangar are maintained.
c. The method of communication between the ground staff members involved in the aircraft movement into/out of the hangar shall be agreed upon before any movement is started by means of a briefing conducted by the responsible ground staff member in charge of the operation.
d. Floor markings and stop signs shall be in accordance with the aircraft type operating into/out of the hangar.

4.9.5. INCIDENTS DURING TOWING

Brake/VHF Operator	Tractor Driver
VHF Communication Failure	
a. Set the aircraft parking brake. b. Communicate the issue to ATC. c. Relay appropriate information received from ATC to the headset operator. d. Continue to monitor the ATC frequency and maintain communications with the headset operator/tractor driver. e. Release the parking brake prior to recommencement of the towing maneuver.	a. Stop aircraft/tractor set as soon as it is safe to do so. It is not safe to stop on an active runway. b. Apply tractor parking brake. c. Communicate the issue to the brake/VHF operator. d. Attempt to contact ATC via alternative frequency/means. e. Await assistance (e.g., from "Follow Me" vehicle) before completing the towing maneuver. f. After completion of the towing maneuver, report VHF failure to equipment maintenance and follow instructions accordingly.
Tractor Failure	
a. Inform ATC. b. Set the aircraft parking brake. c. Listen to VHF and wait for assistance. d. Relay information from ATC to headset operator/tractor driver.	a. Stop aircraft/tractor set. b. Apply tractor parking brake. c. Inform the brake/VHF operator. d. Inform ATC (TWL towing with one-person operation). e. Contact supervision and equipment maintenance to advise of the situation, as required. f. Follow instructions received from headset/brake operator, as applicable. g. Listen to VHF (TWL towing with one-person operation). h. If the TWL/towbar connection with the tractor needs to be reset (i.e., removed and reconnected), the aircraft shall be chocked while the tractor is being replaced.
Tractor/Aircraft Separation	
a. Apply the aircraft brakes. b. As soon as the aircraft is at a standstill, apply the aircraft parking brake before releasing the pedal. c. Inform ATC. d. Relay information received from ATC to the headset operator/tractor driver, if applicable.	a. Do not apply tractor brakes. b. Inform the brake/VHF operator of the separation. c. Follow the aircraft path attentively and stop the tractor according to the aircraft position. d. Apply the tractor parking brake. e. Confirm the aircraft parking brake is set, then chock the aircraft. f. Assess the reason for the disconnection. g. Contact supervision, equipment maintenance and aircraft maintenance to advise of the situation, as required. h. Follow instructions to complete the towing maneuver, as applicable.
Towbar/Shear Pin Failure (remains attached to the aircraft)	
a. Apply the aircraft parking brake. b. Inform ATC. c. Relay information received from ATC to the headset operator/tractor driver, if applicable.	a. Stop the aircraft/tractor set. b. Apply the tractor parking brake. c. Inform the brake/VHF operator of the towbar/shear pin failure. d. Contact supervision, equipment maintenance and aircraft maintenance to advise of the situation, as required. e. Chock the aircraft and replace the towbar. f. Follow instructions to complete the towing maneuver.
Pushback Tractor Fire	
a. Inform ATC and headset operator/tractor driver. b. Apply the aircraft parking brake. c. Determine the need for aircraft emergency evacuation and confirm to ATC/headset operator/tractor driver.	a. Inform the brake/VHF operator. b. Stop the aircraft/tractor set immediately. c. Conduct an assessment of the situation and consider tackling the fire with the onboard tractor firefighting equipment, only if it is deemed safe to do so. d. Consider disconnecting and moving the tractor a safe distance from the aircraft, if deemed safe and appropriate to do so. e. Contact supervision, equipment maintenance and emergency services to advise of the situation, as required. f. If the brake/VHF operator confirms emergency evacuation, assist in the evacuation as far as is possible/required.
Aircraft Fire	
a. Inform ATC and the headset operator/tractor driver. b. Apply the aircraft parking brake. c. Fight the fire with the onboard extinguisher, where possible. d. Evacuate the aircraft using onboard means, if required.	a. Stop the aircraft/tractor set immediately. b. Inform the brake/VHF operator. c. If safe to do so, disconnect and move the tractor to a safe distance from the aircraft, where possible. d. If deemed safe to do so, the headset operator/tractor driver should maintain communication with the brake/VHF operator and follow instructions. e. Contact supervision and emergency services to advise of the situation, as required. f. If brake/VHF operator confirms emergency evacuation, assist in the evacuation as far as is possible/required.
Accident with Other Aircraft or Vehicle	
a. Contact ATC stating position and nature of the accident. b. Listen to VHF and wait for assistance. c. Relay information received from ATC to headset operator/tractor driver, if applicable.	a. Stop the aircraft/tractor set immediately. b. Apply tractor parking brake. c. Inform the brake/VHF operator. d. Contact supervision, aircraft maintenance, equipment maintenance and emergency services to advise of the situation, as required. e. Follow instructions received from the headset/brake operator and/or wait for assistance. f. If disconnecting the tractor, the aircraft must be chocked.

Interphone Communication Failure
If during the towing operation the interphone fails, the aircraft must be immediately stopped, and an alternate means of communication established before continuing. If this is not possible, assistance must be requested.
Visual Contact with Wing Walkers and/or Marshaller Is Lost (if used)
In the event that the tractor driver is unable to establish visual contact with one or both of the wing walkers or the marshaller, when required, the towing maneuver shall be stopped and not recommenced until visual contact is reestablished.

Caution:

A standard communication procedure for abnormal pushback/towing situations (e.g., towbar shear pin failure) cannot consider every possibility that may arise. Therefore, the tractor driver and brake operator shall keep each other informed. Actions should be taken using common sense, taking into account the circumstances of a particular situation.

4.9.6. TOWING COMPLETION

The following checklist is to be used at the end of an aircraft tow.

Action	Performed by	
	Brake Operator	Tractor Driver
Set tractor parking brake.		✓
Request the brake operator to set the aircraft parking brake.		✓
Inform ATC that towing is completed, and the frequency will be left, depending on local regulations.	✓	✓
Set the aircraft parking brake and check the pressure. Inform the tractor driver: *"Parking Brake Set, Pressure Checked"*.	✓	
Chock the aircraft MLG.		✓
Switch off the external anti-collision lights of the aircraft.	✓	
Inform the brake operator: *"Aircraft chocked"*.		✓
Give permission to disconnect the towbar or TWL tractor.	✓	
Disconnect the tractor ground power, where applicable.		✓
Disconnect the towbar (disconnecting from the pushback tractor first, then the aircraft) or TWL tractor.		✓
Remove the steering bypass pin or activate steering as applicable to aircraft type	✓	✓
Place additional chocks, where applicable.		✓
Inform the brake operator: *"Towbar/Tractor Disconnected"*.		✓
Release the aircraft parking brake and inform the tractor operator: *"Parking Brake Off"* (where applicable).	✓	
Install and connect a GPU/FPU.		✓
If installed, remove and stow gear safety pins in the dedicated location.	✓	✓

4.10. LONG-TERM PARKING FOR AIRCRAFT

4.10.1. INTRODUCTION

Successful execution of the long-term parking operation, as well as the recovery and reintroduction of the aircraft back into service after long-term parking, requires close coordination and cooperation between all the relevant airside and aviation stakeholders, including (but not limited to) the aircraft operator, airport authority, GHSP and maintenance provider.

In anticipation of the possible long-term parking of multiple aircraft, ground service providers shall proactively engage with the relevant stakeholders to develop a long-term parking plan. This plan shall be regularly reviewed (minimum once per year) to ensure the plan is still valid. The plan will require ad hoc review in response to changes to the airside environment, such as changes to operators, aircraft types and numbers, airport layout, GHSPs, and

manufacturers' Aircraft Maintenance Manual (AMM). Depending on each airport's emergency plan, the airport may require the aircraft to proceed to a designated bay, possibly a remote bay, according to its plans and requirements.

The long-term parking plan shall ensure:

a. Spacing between adjacent aircraft.
b. When not parked at a bay (e.g., taxiway), aircraft are parked facing into the prevailing wind.
c. Anchor points are available for high-wind conditions.
d. Processes to monitor and adjust for severe weather conditions.

Caution:

In regions with hot climates, it is preferable to park aircraft on hard surfaces such as concrete or high module asphaltic material rather than on flexible surfaces such as bituminous asphalt. This will avoid indenting those areas during long parking periods.

4.10.2. AIRCRAFT MOVEMENT

Based on the airport parking plan, once resumption of operations begins, it is important to ensure there is a well-coordinated aircraft movement plan to ensure there is no damage to the aircraft.

Notes:

1. Ensure all procedures during aircraft ground movement are adhered to as documented in GOM 4.6 to 4.9 .
2. Ensure during any abnormal operations, a robust safety risk assessment is performed, and implementation of the mitigation plan is followed.
3. Ensure timely consultation with the airport operator regarding the aircraft movement.
4. If any surface damage is observed, liaise with the airport management team as per the airport's directives.

Caution:

After long-term parking, anticipate extra pull or push force required for aircraft wheels to exit any indentations in the pavement and/or to overcome the aircraft tires being out of round. This is to avoid shear pin breakage and/or sudden movement in the direction of travel. Refer to the pushback and pull forward procedure in GOM 4.6.7.4 .

Long-term parking of aircraft requires a variety of specific measures to be put in place to ensure the continued safety, security and general airworthiness of the aircraft. These measures are specific to both manufacturer and aircraft type and are detailed in the operator's GOM and manufacturer's AMM. These documents must be complied with.

5 LOAD CONTROL

5.1. LOAD CONTROL PRINCIPLES

The scope of this chapter is to establish standard procedures for the load control process that meet the minimum standards established in the IATA Airport Handling Manual (AHM)– Section 500 Load Control and operating airline procedures. Load control is a process that ensures the production of all applicable documentation complying with operator and regulatory authority requirements, for the safe and secure handling of an individual flight, so that the aircraft is within operational limits, considering both its weight and center of gravity parameters. This includes planning, supervising, reporting, recording of the loading of the aircraft, and weight and balance calculation.

The load control process comprises the following tasks:

a. Load planning

1. Checking, calculating and communicating of load planning information and data.
2. Ensuring information about dangerous goods and other special loads is taken into account.
3. Planning of the loading and producing a loading instruction report (LIR).

b. Supervision of aircraft loading and unloading

1. Verification and recording of aircraft loading.
2. Ensuring the aircraft is loaded in accordance with the loading instructions.
3. Load Control Information Exchange including reporting of final loading figures.

c. Weight and balance calculation

1. Ensuring aircraft weight and balance conditions are correct and within limits.
2. Production of the loadsheet in accordance with the confirmed aircraft loading.
3. The loadsheet reflects the actual loading of the aircraft, including last minute changes (LMCs).
4. Production of other loading documents, such as Notification to Captain (NOTOC), if applicable.

d. Post-departure messages

1. Producing and transmitting required messages.
2. Document retention, as applicable.

Documented communication is required to provide an audit trail and accurate weight and balance calculations for the pilot-in-command (PIC) prior to the aircraft's departure.

Load Control shall be performed by qualified personnel, using the operator’s aircraft data and in accordance with the operator’s and with local regulatory processes, procedures and forms, all of which shall be provided by the operator.

5.2. LOAD PLANNING

5.2.1. LOAD PLANNING - GENERAL

The person charged with the load planning task shall ensure loads are safely planned and distributed in the aircraft compartments and/or holds considering all aircraft limits.

The load planner shall:

a. Check aircraft basic weight/index (BW/BI).
b. Check all items to be included in the dry operating weight/index (DOW/DOI).
c. Check operational messages from the previous flight or leg, including any special loads, if applicable.
d. Check aircraft operational limitations or any other restrictions that may limit load planning.
e. Calculate expected traffic load.
f. Check any other dangerous goods and special loads (DGSL) that require special handling and segregation.
g. Plan unit load devices (ULDs), taking into consideration the expected loading figures, the aircraft configuration and operating airline's procedures.
h. Allocate loading positions for all traffic loads and special loads, if applicable, taking into consideration all flight legs.
i. Calculate the estimated zero fuel weight (EZFW) and transmit it to flight dispatch, as applicable, for flight planning purposes.
j. Communicate the EZFW every time there is a significant difference from the previous calculation, as per operating airline procedures.
k. Check fuel load and distribution.
l. Perform a pre-calculation of the aircraft weight and balance to ensure the aircraft operational limits are not exceeded.
m. Consider aircraft ground stability to avoid tail tipping, as per operating airline procedures and aircraft specifications. Particular attention must be paid to the distribution of the transit load on multi-sector flights. The distribution of the load remaining in the compartments at the next station should be planned, such that it meets the above condition. When this condition cannot be met, the offloading/loading sequence at the transit station shall be planned to ensure aircraft ground stability is maintained.
   Methods to ensure ground stability include use of tables or graphs to determine the weight required in forward compartments to counteract the weight to be loaded in aft compartments, or calculation of center of gravity for comparison against the applicable tipping and/or towing limit:
   Method 1–a scale or table determining the distribution of the loads weight-wise, showing the weight required in the forward compartments to secure ground stability, and the load to be placed in the aft compartments.
   Method 2–calculation of the dead load index/% mean aerodynamic cord (MAC), which shall be forward of the dead load index limit on the balance chart and transmitted on the load message (LDM).
   Method 3–dynamic calculation of aircraft ground stability using a software application that takes every movement of load into account.
n. Produce an LIR.

5.2.2. LOADING INSTRUCTION REPORT

a. An LIR shall be issued for each departing flight to ensure all safety parameters specific to each flight are adhered to.
b. Complete load distribution for the departing flight, using provisional data and adhering to the segregation policy, as per AHM 514 and AHM 515 and operating airline procedures.
c. Indicate all information that could affect loading in the Supplementary Information (SI) section.
d. Refer to AHM 514 for electronic data processing (EDP) and AHM 515 for manual LIR.
e. LIR revisions shall be immediately communicated via appropriate means to loading staff.

5.2.3. OFFLOADING INSTRUCTIONS

a. Offloading instructions may be issued prior to aircraft arrival.
b. For transit flights, produce offloading instructions as per AHM 514 and AHM 515, where transit load, offload and all positions are reported.
c. Consideration shall be given to ensure aircraft stability during the unloading and passenger disembarkation processes.

5.2.4. NOTIFICATION TO CAPTAIN

The NOTOC is used to inform the PIC of DGSL carried as cargo or mail.

The cargo department is responsible for providing DGSL information in legible written, printed or digital, form and transmitting it to the person in charge of the load planning task. The load planner shall produce the LIR, taking into consideration DGSL information, their compatibility and segregation criteria.

The information contained in the NOTOC shall be made available to the person charged with the aircraft loading and supervision task. The person shall:

a. Verify that DGSL are not damaged or leaking.
b. Ensure the correct positioning of DGSL as per the LIR and NOTOC.
c. Report actual loading position.
d. Sign the NOTOC.
e. Deliver the signed NOTOC to PIC for signature.

The NOTOC must be issued in an adequate number of copies to provide information to all concerned and for file retention.

DGSL information shall be made available to the next downline airport before the flight arrives.

For NOTOC, refer to the current IATA Dangerous Goods Regulations (DGR).

5.3. WEIGHT AND BALANCE CALCULATION

5.3.1. WEIGHT AND BALANCE CALCULATION - GENERAL

a. The objective of the weight and balance calculation task is to ensure that a final and accurate loadsheet is issued and has been cross-checked with:

1. Final LIR from the person in charge of the loading supervision task

2. Final passenger close-out data
3. Final fuel figures
4. All aircraft operational and structural limitations for the appropriate aircraft registration

Notes:

1. If a preliminary loadsheet is produced, one or more criteria may not have been finalized.
2. The person charged with the weight and balance calculation task shall ensure all data is finalized or confirmed for manual or electronic loadsheet production.

b. A loadsheet accuracy check is continuously performed prior to the production or transmission of the final loadsheet with:

1. Correct flight number and date (flight identifier)
2. Correct aircraft registration
3. Correct DOW/DOI used according to aircraft type, registration, version, number of crew and pantry
4. Underload (total traffic load not exceeding allowed traffic load)
5. Correct entry of final fuel figures
6. Correct entry of transit load data from incoming LDM/loadsheet
7. Correct passenger close-out data
8. ULD tare weight for containerized aircraft
9. Hold baggage weight and gate delivery items
10. Actual loading positions of DGSL indicated on the NOTOC, if applicable.
11. Balance calculation and conditions of loaded aircraft, including LMCs, are within prescribed limits.
12. Loadsheet shall be checked against the final LIR and other information related to the actual load
13. Any operator-specific requirements are adhered to, if applicable
14. All specified documents shall be signed by means of manual or electronical identifiers

c. Loadsheet format and contents shall meet the minimum criteria set in AHM 516, AHM 517, AHM 518.
d. The signed loadsheet shall then be delivered to the PIC, either as a manual or digital hard copy or in Aircraft Communication Addressing and Reporting System (ACARS) format.
e. Any changes occurring after the final loadsheet has been produced must be accounted for by either producing a new edition of the loadsheet or via the documented LMC process as per operating airline procedures.
f. Any discrepancy in weight and balance documentation shall be reported to the person responsible for the weight and balance calculations and to the customer operating airline using agreed reporting methods as required by operating airline procedures.
g. If a discrepancy is discovered after the final loadsheet has been issued, the PIC shall be informed via the available channels without delay and be provided with relevant and requested information to prevent unsafe takeoff and/or landing.

5.3.2. LAST MINUTE CHANGES

a. Standard procedure–the loadsheet presented to the PIC shall include all LMCs. These will be shown as entries in the LMC box and, if required, as corrections to gross weights, fuel figures and balance conditions.
b. Alternative procedure–operators may allow the loadsheet to be handed over to the PIC before any LMCs are made. Note: Where local regulations require LMCs to be included in the loadsheet, it may be possible for operators to seek the consent of their authorities for use of the alternative procedure.
c. If LMCs are conveyed to the PIC separately, this may be done by the responsible person, either verbally or in writing, in accordance with operating airline procedures. For each flight where no procedure has been determined, the method to be employed must be agreed upon beforehand with the PIC. Employing both methods for the same flight must be avoided as this can lead to confusion and time lost for clarification. In cases where changes do not have to be reported, the responsible person must confirm to the PIC that the data recorded on the loadsheet copy already handed over remains unchanged.
d. LMCs are to be communicated to the PIC only after the responsible person has entered all changes and corrections on the loadsheet copies retained on the ground, and after they have carried out the checks.
e. If the PIC is informed verbally of LMCs, either directly or by using the internal communication facilities of the aircraft (interphone, intercommunication system, ACARS), or by radio communication, the following details must be recorded in writing and kept in the flight file:

1. Name of responsible person
2. Time of transmission
3. Confirmation that the flight crew has acknowledged the changes

f. To inform the PIC about LMCs, either verbally or in writing, when the responsible person is not including the LMCs on the loadsheet, a special LMC slip should be used. The information to be recorded on this form may be limited to the following:

1. Total weight of all LMCs
2. Total number of LMC passengers
3. Corrected balance conditions, even if it is not allowed by the operator (e.g., "BAL not corrected")

This record shall be kept in the flight file.

5.3.3. INFORMATION EXCHANGE

5.3.3.1. INFORMATION EXCHANGE - GENERAL

All data pertaining to aircraft weight and balance calculations shall be communicated to the person charged with the load planning task. This information shall be documented and filed using one of the following methods:

a. Digitally
b. Written via documentation
c. Verbal communication; in this case, the person receiving the information must do one of the following:

1. Read back all information received by radio or telephone or other electronic means to guarantee accuracy of the data.
2. Record all verbal transmissions in written format (manually or digitally) to be able to clarify all discrepancies before the final loadsheet is transmitted.
3. Digitally record all verbal communications.

d. A written transmission is always the recommended method. If it is necessary to use verbal communication, ensure the following details are recorded:

1. Name of the responsible person
2. Time of transmission
3. Confirmation that the receiving party has acknowledged the changes

This record shall form part of the flight file for retention.

5.3.3.2. COMMUNICATION OF AIRCRAFT LOADING TO LOAD CONTROL

Where the communication of aircraft loading, including loading changes and discrepancies, is not carried out by the Loading Supervisor for the flight, but by a designated person, the following requirements apply:

a. Person responsible for communication of aircraft loading shall be trained in accordance with AHM 1110 RMP 18 Turnaround Coordination
b. Direct communication with the person charged with the supervision of aircraft loading and unloading task shall be established.
c. A direct communication means shall be established with the person charged with the load planning and weight and balance calculation task.
d. Communication protocol, as described in GOM 4.5.1.2 Communication, shall be used.
e. Written communication methods are recommended, as per GOM 5.3.3.1.
f. When verbal communication is used, a readback of all weight and balance load control information received shall be carried out. Note: For the task of supervision of aircraft loading and unloading, refer to GOM 4.5.1.

5.3.3.3. REMOTE LOAD CONTROL

Remote load control is the process of performing the load planning task and/or weight and balance calculation task for a departing flight in a location away from the departure station.

a. The key roles of remote load control are:

1. To perform the load planning task
2. To compute the weight and balance calculation task in liaison with the departure station

b. The key roles of the departure station are:

1. To supervise aircraft loading and unloading as defined in GOM 4.5.1
2. To communicate to the remote load control any discrepancies and/or deviations during the loading/unloading process
3. To report final loading of the aircraft to the remote load control

Information exchange is essential for a safe remote load control process. Data shall be transmitted between the remote load control, departure station and flight crew, either directly or indirectly, using predetermined means of communication as established by operating airline procedures.

5.4. POST-DEPARTURE MESSAGES

All post-departure messages and any other relevant messages pertaining to flight handling shall be sent to the defined stations as per operating airline procedures. Such messages may include, but are not limited to:

a. Load Departure Message (LDM)
b. Container Pallet Message (CPM)
c. ULD Control Message (UCM)
d. Statistical Load Summary (SLS)

Messages shall be produced and delivered in accordance with respective AHM chapters.

A flight file for each departing flight shall be maintained in a secure location, according to local regulations and/or operating airline procedures.

5.5. LOAD CONTROL TASK RESPONSIBILITY

The responsibilities of persons performing the load control task may vary depending on the organizational set up. It is recommended that:

a. The same person may perform the load planning task and weight and balance calculation task. The person performing these two tasks should not combine the responsibilities with those for the aircraft loading and unloading supervision task.
b. The aircraft supervision task, the weight and balance calculation task and the post-departure message task may all be performed by the same person. However, the person performing these three tasks should not include the responsibility for the load planning task as well.
c. At a station where ACARS is used, finalization of the weight and balance calculation task may differ.
d. When load control processes are centralized, the person performing the aircraft loading and supervision task is charged with transmitting all final data to the remote load control center.

5.6. QUALIFICATION REQUIREMENTS

Personnel performing load control tasks shall be duly qualified. Training shall be in accordance with AHM 1110.

Training for load control tasks shall be performed by a qualified instructor authorized by the operator. Load control licensing, training and documentation shall be in compliance with regulations and operating airline procedures.

5.7. DOCUMENTATION

The operator is responsible for providing all relevant documentation for load planning and weight and balance calculations. The operator shall define the data content and terminology for documents, reports and messages.

The person issuing the loadsheet shall accurately reflect all received data on documents, reports and messages produced for each flight, as per AHM 590.

Relevant documents shall be manually or electronically issued and signed as per regulatory requirements and operating airline procedures.

Specified documents shall be retained for a period in accordance with applicable local regulations and/or operating airline procedures, but not less than three months.

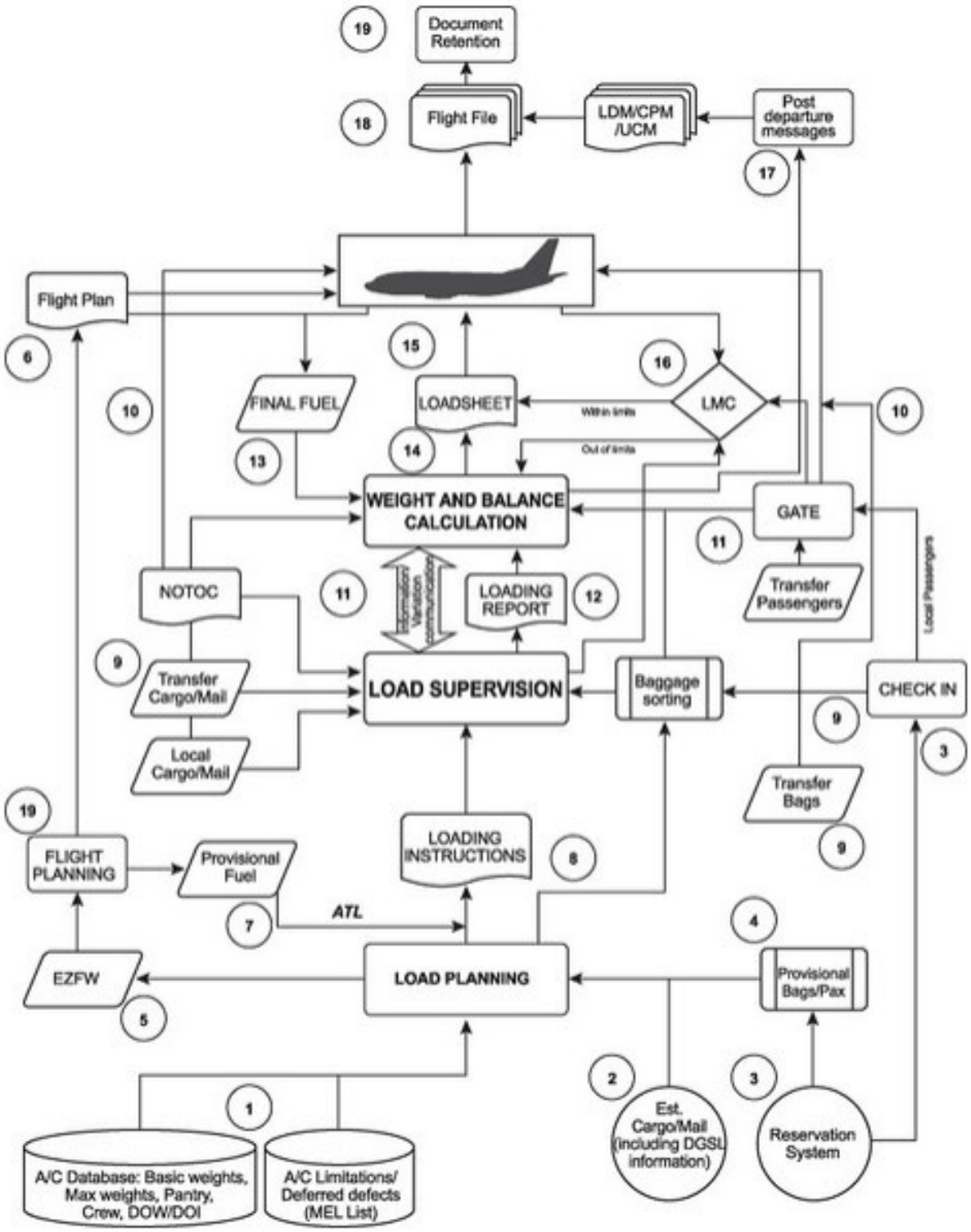
As a minimum, the documentation for each departing flight shall include:

a. Final LIR signed by the responsible person
b. NOTOC (when applicable)
c. Fuel figures confirmation (when applicable)
d. Final loadsheet and trim sheet, including LMC, signed by the PIC

Disposal of documents may also be subject to regulation.

5.8. LOAD CONTROL PROCESS FLOW

5.8.1. LOAD CONTROL PROCESS FLOW SCHEMA



5.8.2. LOAD CONTROL PROCESS FLOW LEGEND

Circle	Action
1	Aircraft designation: access to permanent and semi-permanent data as per AHM 565 and maintenance data related to limitations that could affect loading and weight and balance
2	Estimated/Provisional cargo and mail data, including DGSL information, to load planning
3	Data from reservation system to capacity calculation (passenger and baggage counts) and check-in special service requests (SSRs)
4	Provisional passengers sorted by class and provisional baggage according to operating airline procedures to load planning
5	Provide EZFW to flight planning system
6	Operational flight plan to PIC
7	Provisional fuel to calculate the allowed traffic load and verify that load planning is within limits
8	LIR to load supervision and loading team; segregation plan to sorting area
9	Actual data flowing from check-in (e.g., passenger number, baggage pieces and weight, special load information), cargo and mail warehouse (special load information) and transfer load
10	Load to aircraft
11	Load information and variation communication between load control and load supervision: discrepancies between planned and real load weight, nature and distribution
12	Final data confirmation from loading supervision and gate (gate-collected items)
13	Final fuel figures communication from the flight planning system or PIC
14	Loadsheet verification and release
15	Loadsheet to aircraft
16	Last minute changes
17	Post-departure load messages and DGSL information to station of arrival
18	Signed documents verification and collection
19	File archiving and retention

6 OPERATIONAL OVERSIGHT

6.1. INTRODUCTION

Oversight is applied at both a managerial level as well as at an operational level.

Managerial oversight ensures a company has in place a management system that sets up the polices, processes, performance indicators and other mechanisms, outlines accountabilities throughout the company as well as ensures there are necessary resources available to conduct operations.

It is important that management continuously reviews its operations to ensure the ongoing suitability, adequacy and effectiveness of the management and control of ground operations. A review shall include assessing opportunities for improvement and the need for changes to the system, including, but not limited to, the organizational structure, reporting lines, authorities, responsibilities, policies, processes, procedures and allocation of resources.

An effective operational oversight structure and process helps to ensure that day-to-day operations do not deviate from the agreed policies, procedures and company goals, while simultaneously acting as a mechanism to identify and investigate occasions when deviations occur.

A company is also subject to external oversight performed by a regulatory body (e.g., Civil Aviation Authority) and, in the case of ground handling service providers (GHSP), by the contracted airlines or via an industry body (e.g., IATA) on their behalf.

This chapter provides guidance on what needs to be in place for effective operational oversight and gives practical examples of how oversight may be conducted via supervisory functions.

6.2. OPERATIONAL OVERSIGHT PURPOSE

The purpose of operational oversight is to ensure:

Continuous conformance with all documented standards, procedures and working practices covering all aspects of ground operations including, but not limited to, occupational health and safety, operational safety, security and quality.

a. Compliance with regulatory requirements and applicable laws.
b. Measurement of performance against indicators and achievement of company goals.
c. Identification of opportunities to improve performance.
d. Occurrences, findings and opportunities are addressed.

To ensure compliance with all applicable laws and conformance to documented standards and procedures, all station activities, including, those outsourced to a third-party GHSP and/or its subcontractors, shall be conducted under the direct oversight of suitably trained and qualified operational personnel.

Operational oversight is a hierarchical process that ensures continuous compliance, conformance and improvement through a variety of monitoring processes. Examples of oversight mechanisms include:

a. Operational Management (ongoing/daily operation)

1. Direct Supervision–provides specific instructions and frequently reviews work for completeness and accuracy.

2. General Supervision–generally oversees what is to be done and sets limitations, deadlines, and priorities.

   b. Monitoring Program–Quality Management System (QMS), Safety Management System (SMS), Occupational Health and Safety (OHS) and Corporate Risk Management include specified quotas per month or number of turnarounds/operations as well as audit plans based on other risk factors such as quality or safety performance.

1. Quality Control–checks and inspections are often referred to as Safety Inspections, Frontline Inspections, Line Checks, Line Evaluations, etc.
2. Measuring–testing the output of a process to determine compliance with technical, performance and/or quality standards such as measuring KPIs as part of a Service Level Agreement (SLA).
3. Internal Audit–a structured, independent, and objective assessment conducted by an organization on its own functions or activities that determines the level of conformity with specific standards, regulations, or other requirements.
4. External Audits–Regulatory or accreditation audits conducted under a regulatory or accreditation program to ensure continuing conformity with industry standards.

Note 1: Refer to the DHS SQM, H&S and SMS manuals for further guidance.

Note 2: Quality Control Inspections are performed using Safety Culture Application.

6.3. SUPERVISION

6.3.1. FUNCTIONS

During any operation, different persons may perform supervisory functions to ensure tasks are completed safely, according to relevant procedures and as per contracted SLAs.

A Supervisor can commonly be described as a person who supervises activities and/or other persons performing tasks within a process as defined in GOM 6.3.2. It should be noted that, while some organizations have a dedicated Supervisor as part of an operations team, certain supervisory responsibilities may be delegated to any individual within a process regardless of their job title.

Notes:

1. Airline approaches to supervision may vary by airline and location.
2. Details of the contracted services will be specific to each contract and will be agreed between the two parties.
3. Airlines may contract a dedicated person from the contracted GHSP or
4. A third party to oversee/supervise and/or coordinate specific airline requirements as contracted to ensure they are met.
5. The person can be contracted to cover all turnaround activities, including administrative tasks, or the scope can be limited to a specific part of the airline's operations.

6.3.2. SCOPE AND RESPONSIBILITIES

Supervision scope of ground handling and related activities will include, but is not limited to, the following activities:

a. Passenger handling
b. Baggage handling
c. Ramp handling
d. Load control

Generally, the responsibilities of an individual with supervisory functions include:

a. Setting goals for operational performance and deadlines in ways that comply with the company's structure, plans and vision
b. Organizing workflows and ensuring employees understand their duties or delegated tasks
c. Monitoring employee activity, providing constructive feedback and coaching
d. Providing oversight and guidance to personnel conducting operational functions
e. Reporting any accidents, incidents and/or noncompliance as per the organization's procedures

Supervision personnel shall be trained and qualified to perform the assigned functions (see AHM Ch.1110).

6.3.3. TURNAROUND COORDINATION

The turnaround coordination is performed by a Turnaround Coordinator whose primary goal is to oversee and coordinate processes for both above and below the wing activities during a flight turnaround.

The Turnaround Coordinator may be described as a person who:

a. Provides a focal point of coordination for all ground activities and operational teams, including flight crew.
b. Ensures adherence to the station's Precision Time Schedule (PTS).
c. Ensures safe, secure and punctual performance.
d. Stops any turnaround activities that are not in compliance with safety, security and operational procedures and processes.

Note: This function may be performed remotely.

As the organizational structure may differ from company to company or due to local setup, it is important to make a distinction between a Supervisor and a Turnaround Coordinator. In some situations, the Turnaround Coordinator will also assume supervisory responsibilities, while in others the roles are split and assigned to specific individuals. A Turnaround Coordinator may be responsible for more than one aircraft turnaround/stand simultaneously.

6.4. OVERSIGHT CHECKLISTS

6.4.1. PASSENGER HANDLING CHECKLIST

No	Action	Reference	Check-in	Boarding	Transfers	Arrivals	Remarks
1	Preparation activities are completed (e.g., flight editing-i.e., review aircraft configuration, passenger name list/status, special service requests (SSRs), special passengers, inbound/outbound connections, passenger numbers and connection times, stand allocations)	DHS GOM 1.1.1 SOP_PAX00	✓	✓	✓	✓	
2	Assistance for persons with disabilities (PWD) is arranged for passengers requiring the service, as appropriate.	DHS GOM 1.1.1.2 SOP_PAX00	✓	✓	✓	✓	
3	Personnel are briefed before performing tasks.	DHS GOM 1.1.1.2 1.1.3.5	✓	✓	✓	✓	
4	Personnel are wearing the required personal protective equipment (PPE) and uniform in line with the company's standards.	DHS GOM 3.1.2.5	✓	✓	✓	✓	
5	Facilities, including counters, desks and self-serve kiosks, are set up, as per airline or local authority requirements, as applicable (e.g., queues, stanchions, carpets, baggage gauges, podiums).	DHS GOM 1.1.2 SOP_PAX01	✓	✓	✓	✓	
6	All relevant desks and airport information boards display the	DHS GOM 1.1.2	✓	✓	✓	✓	

	correct flight information.	SOP_PAX01					
7	Stock boarding pass/bag tag printers with boarding passes/bag tags while ensuring adequate stock of any other tags required by the airline for handling.	DHS GOM 1.1.2, 1.1.7.1 SOP_PAX01 SOP_PAX07	✓	✓	✓	✓	
8	Prominently display dangerous goods and any other notifications, either electronically or in print versions.	DHS GOM 1.1.2, 1.1.7.1 SOP_PAX01 SOP_PAX07	✓	✓	✓		
9	Weighing scales are functioning correctly.	DHS GOM 1.1.2	✓				
10	Passengers are welcomed, greeted, and assisted in a professional manner.	DHS GOM 1.1.4.1 SOP_PAX03	✓	✓	✓	✓	
11	Carry out verification and acceptance of passenger documents, as applicable.	DHS GOM 1.1.5.2 SOP_PAX02	✓	✓	✓		
12	Pay attention to any signs the passenger might not be allowed to travel (e.g., unruly, overall fitness to fly, including potentially communicable diseases, medical conditions, intoxication) and monitor the watchlist.	DHS GOM 1.1.4.1 SOP_PAX03	✓	✓	✓		
13	Check with the passenger whether they have any SSRs, prioritize these as required and provide assistance, if applicable.	DHS GOM 1.4 SOP_PAX10 SOP_PAX11	✓	✓	✓		

14	Seats are assigned and distributed in line with the operating carrier's procedures.	DHS GOM 1.1.4.2, 1.1.4.3	✓	✓	✓		
15	Cabin baggage is assessed to ensure it conforms to the carrier's allowable size and weight dimensions, where applicable.	DHS GOM 1.1.6.2 SOP_PAX04	✓	✓			
16	Verify with the passenger whether they are carrying items of dangerous goods or other prohibited articles that are not permitted either as personal belongings, cabin baggage or checked baggage as per DGR 2.3A	DHS GOM 1.1.6.2, 1.1.6.3, 1.1.6.4 SOP_PAX04	✓	✓			
17	Checked baggage is assessed, weighed and recorded in the departure control system (DCS) in line with the operating airline's procedures and excess baggage charges are applied, where necessary.	DHS GOM 1.1.6.3 SOP_PAX04	✓				
18	Ensure all bags, including special baggage (e.g., oversize baggage, sporting equipment, live animals (AVIH), firearms and weapons, delivery at aircraft (DAA)) are labeled, tagged and handled correctly.	DHS GOM 1.1.6 SOP_PAX04	✓	✓			
19	Hand boarding passes, baggage receipts, and other travel documents to the passenger and	DHS GOM 1.1.4 SOP_PAX03	✓	✓			

	direct or guide them on to the next steps.						
20	Communicate any relevant information, including disruptions and/or delays, to passengers immediately and at regular intervals.	DHS GOM 1.1.4.1, 1.5 SOP_PAX03	✓	✓	✓	✓	
21	Passengers are directed according to the flight gate and/or local immigration requirements, as applicable.	DHS GOM 1.1.4.1 SOP_PAX03	✓	✓	✓	✓	
22	Boarding/disembarkation routes to/from aircraft and/or passenger buses and/or passenger boarding bridges (PBB) are safe and clearly marked, where possible. **Note:** Passengers must be supervised on the ramp at all times.	DHS GOM 1.1.7.1, 1.3.1 SOP_PAX07 Airport Regulations Manual		✓		✓	
23	All gate areas and access doors are secured to prevent unauthorized access when not in use.	DHS GOM 1.2.4		✓		✓	
24	Preboarding and priority boarding apply in line with the operating airline's procedures.	DHS GOM 1.1.7.1 SOP_PAX07		✓			
25	Once clearance is received, board/disembark passengers as per the airline boarding sequence.	DHS GOM 1.1.7.2 SOP_PAX07		✓		✓	
26	During the boarding process, boarding passes and travel documents are checked as required and each passenger is	DHS GOM 1.1.7.2, 1.1.5 SOP_PAX02 SOP_PAX07		✓		✓	

	reconciled against the DCS.						
27	Accept all standby passengers (revenue, non-revenue) and standby bags as per the airline's priority listing.	DHS GOM 1.1.7.4 SOP_PAX07	✓	✓			
28	Register all last-minute changes in the DCS and inform load control about the final passenger and/or baggage information, as per operating airline procedures.	DHS GOM 1.1.7.3, 1.1.7.4 SOP_PAX07 SOP_PAX09	✓	✓			
29	Before gate closure, ensure all accepted passengers have boarded the aircraft. Secure the flight by matching the checked-in passengers to the boarded passengers. All discrepancies must be resolved prior to closing the aircraft access door.	DHS GOM 1.1.7.4 SOP_PAX07		✓			
30	Provide final passenger numbers and departure documents to cabin and/or flight crew, as required.	DHS GOM 1.1.7.3, 1.1.8 SOP_PAX07 SOP_PAX09		✓			
31	Cabin access doors are closed before removal of passenger boarding devices	DHS GOM 4.4.2		✓			
32	All relevant messages are dispatched to the appropriate addresses, as per operating airline procedures.	DHS GOM 1.1.9	✓	✓	✓	✓	
33	All stationary and passenger information	DHS GOM 1.2	✓	✓	✓	✓	

	are kept under surveillance and removed from counters to prevent unauthorized access and use, whenever possible.						
34	The DCS and other systems are locked when not in use to prevent unauthorized access.	DHS GOM 1.2	✓	✓	✓	✓	

6.4.2. BAGGAGE HANDLING CHECKLIST

No	Action	Reference	ARRIVAL– TERMINATING	ARRIVAL TRANSFER	DEPARTURE JOINING	DEPARTURE TRANSFER	Remarks
1	All staff correctly wearing appropriate PPE	DHS GOM 2.3, 3.1.2.5	✓	✓	✓	✓	
2	Staff briefing conducted and staff aware of any baggage requiring special handling (e.g., firearms, mobility aids, strollers, oversized items).	DHS GOM 2.4.1, 2.4.2	✓	✓	✓	✓	
3	Required documentation available (e.g., ULD cards, bingo cards) and marked up for correct flight.	DHS GOM 2.4.3		✓	✓	✓	
4	Working areas and equipment clear of obstacles and refuse that can cause foreign object damage (FOD), old baggage labels.	DHS GOM 3.1.2.3, 3.1.2.4	✓	✓	✓	✓	
5	Flight details visually checked on all baggage carts (flight	DHS GOM 2.4.3		✓	✓	✓	

	number, date, destination)						
6	Correct handling/loading of fragile, heavy, large and/or oversized items. Handling labels followed and items handled carefully to avoid damage to baggage and injury to personnel.	DHS GOM 2.3, 2.4.3	✓	✓	✓	✓	
7	Special baggage handled/transferred/delivered in accordance with local procedures and customer airline requirements (e.g., firearms, mobility aids, strollers, oversized items) and in a manner to prevent damage (e.g., no other items placed on top).	DHS GOM 2.4, 2.7	✓	✓	✓	✓	
8	Final checked-in bag figure reconciled against bags received.	DHS GOM 2.4.3			✓	✓	
9	Number of ULDs used reconciled against the baggage plan/flight summary before being released to the aircraft.	DHS GOM 2.10.2	✓		✓	✓	
10	Any damaged baggage segregated, and supervisory personnel notified.	DHS GOM 2.6.3.2	✓	✓	✓	✓	

6.4.3. RAMP HANDLING CHECKLIST

No	Action	Reference	ARRIVAL	DEPARTURE	Remarks
1	Preflight briefing conducted regarding flight requirement(s) and services, as needed.		✓		
2	Pre-arrival and pre-departure checks ensuring that the parking position and intended path of aircraft are free of FOD and/or obstacles.	DHS GOM 4.1.1, 4.6.3.1 SOP_OPS00	✓	✓	
3	Personnel are available and wearing PPE	DHS GOM 4.1.1, 3.1.2.5	✓	✓	
4	Position all ground support equipment (GSE) and personnel (undertaking the departure process) outside the equipment restraint area (ERA) prior to aircraft arrival and departure, unless specifically required by the arrival/departure procedure (e.g., pre-positioned ground power unit (GPU)).	DHS GOM 4.1.1, 4.1.4.1, 4.6.3.1 SOP_OPS00	✓	✓	
5	The aircraft guidance system is activated, if applicable	DHS GOM 4.1.1, 4.6.3.1 SOP_OPS00	✓	✓	
6	Personnel shall remain outside the ERA while the aircraft anti-collision lights are switched on unless specifically required by the arrival/departure procedure.	DHS GOM 4.1.1, 4.6.7.1 SOP_OPS00	✓	✓	
7	Aircraft chocked and coned as per requirements.	DHS GOM 4.1.2.2, 4.6.3.1 SOP_OPS00	✓	✓	
8	An external walkaround check prior to approach of any GSE is performed and as soon as possible after all GSE activities have been completed prior to aircraft departure.	DHS GOM 4.1.2.2, 4.6.3.1 SOP_OPS00	✓	✓	

9	All personnel follow ramp safety procedures (e.g., fuel safety zone, do not walk between ULD or connected equipment, correct manual handling techniques used).	DHS GOM 3.1, 3.2, 4.5 SOP_OPS00	✓	✓	
10	All cargo holds are inspected to check condition and security of loads prior to unloading/after loading (e.g., locks raised, nets secured, no leakage, no loads shifted). Note: All holds shall be opened and inspected even if empty.	DHS GOM 4.5.5	✓	✓	

No	Action	Reference	ARRIVAL	DEPARTURE	Remarks
11	Cargo holds are unloaded/loaded in the correct sequence in accordance with the loading instruction report (LIR) and commodities correctly handled as required (e.g., dangerous goods and special loads are correctly handled, segregated, secured and stowed).	DHS GOM 4.5.4, 4.5.6	✓	✓	
12	Passenger walkways are clear of obstacles and free of undesired contaminated substances.	DHS GOM 1.1.7.1 Airport Regulations Manual SOP_OPS00	✓	✓	
13	Passenger movement is supervised when passengers walk on the ramp (e.g., between aircraft and bus/terminal).	DHS GOM 1.1.7.1 SOP_OPS00 Airport Regulations Manual	✓	✓	
14	Fueling vehicle is correctly positioned and escape route is not obstructed when fuel tanker/bowser is used.	DHS GOM 3.2 SOP_OPS00		✓	

15	Fuel safety zone procedures/restrictions are followed.	DHS GOM 3.2.1 SOP_OPS00		✓	
16	Safety precautions for fueling with passengers on board or boarding are adhered to, as applicable.	DHS GOM 3.2.3 SOP_OPS00		✓	
17	The person responsible for the loading supervision task is in possession of the latest edition of the LIR prior to commencement of loading.	DHS GOM 4.5.6.4 SOP_OPS00 SOP_OPS01		✓	
18	Final load information is communicated/confirmed to load control with all deviations noted.	DHS GOM 4.5.6.4 SOP_OPS00		✓	
19	Final load information (e.g., Loadsheet/Notice to Captain–NOTOC) is provided to flight crew, as required.	DHS GOM 5.7 SOP_OPS00		✓	
20	Aircraft ground movement preparation activities correctly carried out (e.g., connection of pushback/towing equipment, communication with flight crew established).	DHS GOM 4.6 SOP_OPS00		✓	
21	Departure sequences conducted as required (e.g., GPU, air start unit (ASU), pushback, engine start, personnel/ equipment positioning).	DHS GOM 4.6.6.2 SOP_OPS00		✓	
22	Post-departure activities are conducted as required with appropriate document retention.			✓	

Notes:

1. The numbering of the process does not depict sequence of action.
2. The checklists are examples of elements that require supervision by individuals assigned to oversee ground handling operations. The primary task is to stop all unsafe acts.

6.5. INCIDENT NOTIFICATION AND IMMEDIATE ACTIONS

6.5.1. GENERAL

During ground operations, there is a risk of incident, accident or other emergency situations, such as, but not limited to:

a. Fuel and oil spills
b. Dangerous goods events
c. GSE collisions/accidents
d. Situation requiring an aircraft evacuation without passengers
e. Personnel injuries
f. Severe weather emergencies
g. Illicit acts (e.g., security breach)

Depending on the severity and magnitude of the event, the airline and/or airport emergency response procedures might be activated (see AHM 620 for Crisis and Emergency Response at the Airport).

Note: Some occurrences might be managed locally within the company's emergency response procedures.

Any person carrying out a supervisory function must be familiar with:

1. The emergency response procedures and/or reporting protocol of:

i. Their own company or operating airline
ii. The airport at which they are operating
iii. Regulatory authorities (e.g., dangerous goods)

2. Immediate actions per type of event, including aircraft evacuation (see GOM 6.5.2 and 6.5.3)

6.5.2. IMMEDIATE ACTIONS

In the event of an incident or accident, all frontline personnel shall understand and be familiar with the immediate response, which includes, but is not limited to the following actions:

a. Stop the activity/process, if applicable to the type of event (e.g., switch off engine/activate emergency stop button).
b. Ensure all passengers and personnel (unless involved in mitigating actions) are moved away from the incident.
c. Immediately notify the relevant parties and any personnel directly involved or impacted by the nature of the incident (e.g., flight crew).
d. Report the event to the supervisor/line manager and emergency services, if deemed necessary, who will then assume responsibility to initiate the local response plan:

1. Secure the event area.
2. Ensure compliance with all instructions from emergency services, if applicable.
3. Report to the airline representative and, as required, to local authorities and be in constant communication.
4. Complete incident/accident report(s) as required to collect all relevant information regarding the event.
5. Support any post-incident investigation, analysis and/or review.

The actions, as documented above, are not in chronological order, which will depend on the nature and severity of the event.

Note: Investigation shall be carried out in accordance with company procedures.

For further Guidance refer to H&S Manual Part 7 & Investigation Principles Guide.

6.5.3. AIRCRAFT EVACUATION

Aircraft evacuation without flight crew and passengers on board:

a. Roles and responsibilities for the evacuation.
b. Procedures and different methods of evacuation from the aircraft (e.g., mobile stairs, PBB). Escape slides are not intended as the primary means of exit.
c. Means of communicating the evacuation (e.g., radios, audible warnings).

Note: Personnel should be trained in the evacuation procedures, including periodic evacuation drills/practices.

6.5.4. DANGEROUS GOODS

Whenever a suspected damage or leakage involving dangerous goods occurs, the following actions shall be taken (refer to DGR for further guidance):

a. Identify the nature, source and associated hazard of the contamination.
b. Stop the handling activities or reduce them to a minimum in the vicinity of the hazard.
c. Prevent access by unauthorized personnel.
d. Do not walk through, touch, sniff or taste any substance or spilled material.
e. Notify the relevant parties, including crew and any personnel in the vicinity.
f. Restrict/block access to the damaged item using any suitable means.
g. Contact and report the event immediately to the supervisor/line manager and emergency services, if deemed necessary, who will then assume responsibility to initiate the local response plan.
h. Coordinate the response in conjunction with Dangerous Goods Regulations (DGR) experts or emergency services, for example:

1. Use the NOTOC (review emergency code as provided) or Load Messages–LDM (e.g., Offloading Instruction, container pallet message (CPM), LIR or similar) to identify the substance.
2. Follow emergency response procedures as per the DGR category in Section 9.
3. Verify the ground connection of electrical equipment (e.g., GPU) and remove all possible sources of ignition, if deemed necessary.
4. Isolate all personnel suspected of being contaminated and refer them for treatment.
5. Seek confirmation from emergency services that the area is safe to re-enter.

i. Identify and prevent from transport any other cargo, baggage or transport devices that have become contaminated by the leakage of dangerous goods.

6.6. ADVERSE WEATHER OVERSIGHT PROCEDURES

Oversight of an aircraft arrival/departure during adverse weather includes, but is not limited to, the activities listed below. Some examples of adverse weather include snowstorms, thunderstorms/lightning, sandstorms, high winds, hurricanes/typhoons, tornadoes and intense heat (see GOM 3.3).

ACTION	✓	REMARKS
Received notification of adverse weather a. Thunderstorm, lightning b. Low visibility c. Snow/ice conditions d. High/strong winds, gusts e. Heavy rains, flooding f. Sandstorms g. Extreme temperature (hot/cold) h. Other		
Acknowledge notification of adverse weather		
Identify the threat and actions for the following: a. Personnel and passengers, including PWD/PRM b. Arriving aircraft c. Parked aircraft, vehicles and GSE d. Baggage handling e. Cabin equipment f. Catering and ramp handling g. Departure h. Exterior cleaning i. Interior cleaning j. Load control and flight operations k. Marshaling l. Moving of aircraft m. Passenger services n. Ramp fueling/defueling operations o. Ramp services p. Ramp to flight deck communications q. Toilet services r. Towing cargo and baggage s. ULDs and bulk loading/unloading of baggage and cargo		
Activate the Severe Weather Plan a. Communicate to all affected parties b. Meet with ground handling personnel, GSE and maintenance personnel c. Outline forecast, actions and review resources d. Notify dispatch, passenger services and planning groups that operations might be interrupted e. Continue to monitor and communicate the weather situation		
Take actions according to established procedures		
Check personnel conduct, behavior and operational practices (e.g., PPE)		
Ensure compliance with local regulations		

Table 6.6—Adverse weather actions

7 ANNEX A: GLOSSARY

To ensure consistency of the AHM and IGOM, the Definitions sections of both have been combined as of the 2024 editions of both manuals. Please note however, that not all the definitions are applicable to both manuals.

A

ACARS

Aircraft Communications Addressing and Reporting System–a digital datalink system for transmission of short, relatively simple messages between aircraft and ground stations.

ACCIDENT (Aircraft)

An occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which a person is fatally or seriously injured, the aircraft sustains substantial damage, or the aircraft is missing or is completely inaccessible (ICAO Annex 13). Equivalent terms: Aircraft Accident, Hull Loss

ACCOUNTABILITY

The obligation or willingness to accept responsibility for the execution or performance of an assigned function, duty, task or action; implies being answerable (i.e., accountable) to a higher authority for ensuring such responsibility is executed or performed.

ACT OF UNLAWFUL INTERFERENCE

Any act or attempted act that may jeopardize the security of civil aviation, including but not limited to:

a. Unlawful seizure of aircraft
b. Destruction of aircraft in service
c. Hostage-taking on board an aircraft or at an airport
d. Forcible intrusion on board an aircraft, at an airport or on the premises of a related civil aviation facility
e. Introduction on board an aircraft or at an airport of a weapon, a hazardous device or material intended for criminal purposes
f. Use of an aircraft in service for the purposes of causing death, serious bodily injury, or serious damage to property or the environment
g. Communication of false information that jeopardizes the safety of an aircraft in flight or on the ground, or the safety of passengers, crew, ground personnel or the public, at an airport or on the premises of a related civil aviation facility

ACTIVE REROUTING

The autonomous GSE can find an alternative route to reach its destination without needing external instructions.

ADULTS

Persons over the age of 12 years and may be classified as male or female.

AFFILIATE

[This definition is used in AHM 850 SICA] means any corporation, limited liability company, partnership, firm or their entity that is under the control either directly or indirectly with another party.

AGENT—HANDLING

[This definition is used in AHM 810 SGHA]. See "Company–Handling, Ground Handling Service Provider and Aircraft Handling".

AGENT—RAMP

A person who supervises and co-ordinates on the ramp the tasks of ground handling for an aircraft departure or arrival.

AIRCRAFT—CONFIGURATION

Planned utilization layout of aircraft interior space.

AIRCRAFT ENGINE

The basic aircraft engine assembly plus its essential accessories as supplied by the engine manufacturer.

AIRCRAFT—CONTAINERISED

An aircraft of which the cargo compartments are equipped with an aircraft unit load device conveyance and restraint system, in order to accommodate aircraft containers or pallets. This may be either a wide-body or a narrow-body aircraft.

AIRCRAFT GROUND DAMAGE

Any occurrence or event associated with ground operations, which results in aircraft damage or any near miss that could have resulted in aircraft damage.

AIRCRAFT GROUND MOVEMENT

Operations associated with the moving of an aircraft on the ground, including aircraft taxi-in, aircraft pushback, aircraft taxi-out, aircraft powerback, and aircraft towing. See Aircraft Pushback, Aircraft Powerback, Aircraft Taxi-in, Aircraft Taxi-out, Aircraft Towing.

AIRCRAFT HANDLING

Activities necessary for the arrival and departure of an aircraft at an airport other than air traffic services; It's associated with the servicing of an aircraft on the ground, including aircraft access, equipment attachment and removal, and operation of vehicles and equipment in the immediate vicinity of the aircraft. Synonym: Ground Handling, Aircraft Servicing.

AIRCRAFT MAINTENANCE MANUAL (AMM)

A manual produced and continuously updated by the aircraft manufacturer that contains procedures relating to the maintenance of aircraft, engines and components.

AIRCRAFT MARSHALLING

The detailed direction of an aircraft ground movement from outside by a marshaller who is in a position to see the aircraft exterior as well as areas on and adjacent to the path over which the aircraft is moving.

AIRCRAFT OPERATIONS

All activities associated with the operation of an aircraft on the ground and in the air.

AIRCRAFT POWERBACK

Rearward moving of an aircraft from a parking position to a taxi position by use of the aircraft engines.

AIRCRAFT PUSHBACK

Rearward moving of an aircraft from a parking position to a taxi position by use of specialized ground support equipment.

a. NOSE GEAR-CONTROLLED PUSHBACK includes either the towbar method, where the rearward movement and steering of the aircraft is controlled by a tractor and towbar attached to the nose gear, or the towbarless method, where a tractor is attached directly to the nose gear.
b. MAIN GEAR-CONTROLLED PUSHBACK utilizes a tractor that grasps the aircraft main gear tires to provide rearward movement, and directional control is provided from the flight deck through use of the nose wheel steering system.

Equivalent Term: Pushback

AIRCRAFT REGISTRATION

unique alpha/numeric designation for an aircraft.

AIRCRAFT STAND

A designated area on an apron intended for parking an aircraft. Equivalent terms: Stand, Parking Stand

AIRCRAFT TAXI IN

Forward moving of an aircraft into a parking position by use of the aircraft engines.

AIRCRAFT TAXI OUT

Forward moving of an aircraft from a parking position by use of the aircraft engines.

AIRCRAFT TOWING

a. MAINTENANCE TOWING Towing an aircraft without passengers, without cargo, with minimum fuel on board

b. OPERATIONAL/DISPATCH TOWING Towing an aircraft, loaded with passengers and/or fuel, and/or cargo, to/from the terminal gate or parking area, to/from a remote location
c. REPOSITIONING TOWING The movement of an aircraft to/from remote parking purposes. An aircraft can be loaded with cargo or fuel

AIRCRAFT TYPE

All aircraft of the same basic design, including all modifications except those modifications that result in a change of handling, flight characteristics or flight crew complement.

AIRLINE

means any Aircraft Operator that operates or otherwise utilizes an aircraft.

a. CUSTOMER AIRLINE An air operator that has entered into a contractual agreement with an external services provider for the conduct of specified operational functions for the airline.

Equivalent term: Client Airline.

AIRPORT

a. ALTERNATE AIRPORT Planned alternative en route and destination airport(s) for a flight.
b. DEPARTURE AIRPORT The Airport from which the aircraft last departed, using the same Flight Number.
c. DESTINATION AIRPORT Ultimate intended terminating airport of a flight.
d. ORIGIN AIRPORT The place from where the flight commences.

AIRPORT MOVEMENT

See "Airport–Origin/Departure/Destination".

AIRPORT—ORIGIN

The place from where the flight commences.

AIRPORT SUPPLIES

All items intended to be sold, used or made available for any purpose or activity in a security-restricted area of an airport, other than items carried by persons other than passengers.

AIRPORT TERMINAL

[This definition is used in AHM 810 SGHA and in AHM 820 GHSA]. All buildings used for arrival and departure handling of aircraft.

AIRSIDE

The movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

AIRSIDE SAFETY

To ensure an acceptable level of safety of personnel in the performance of their duties in the airside areas of an airport.

AIRWORTHINESS

The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

AIRSIDE INCIDENT

Any event not classified as either aircraft ground damage or serious personal injury occurring during ground operations and includes any dangerous or hazardous occurrence.

AIR WAYBILL

The document entitled "Air Waybill/Air Consignment Note" made out by or on behalf of the shipper which evidences the contract between the shipper and carrier(s) for carriage of goods over routes of the carrier(s).

ALLOWED TRAFFIC LOAD

is a load that can be carried on the aircraft on a sector and is the difference between the allowed weight for takeoff and the operating weight.

ANTI—ICING

Procedure by which fluid is applied to provide protection against the formation of frost or ice or the accumulation of snow or slush on treated surfaces of an aircraft for a limited period of time [ref. AS6285].

APPLICABLE LAW

[This definition is used in AHM 850 SICA]. means applicable international, federal, state, local and foreign laws and ordinances and all lawful orders, directives, rules and regulations at the relevant Location there under, including without limitation all local rules and regulations promulgated by any lawful and relevant authority (airport or governmental).

APRON

A defined area on an airport intended to accommodate aircraft for loading or unloading of passengers or cargo, or for fueling, parking or maintenance. Equivalent term: Ramp.

AREA LOAD LIMITATION

maximum load acceptable on any m2 (ft2) of an aircraft floor.

ARRANGE FOR

(or MAKE ARRANGEMENTS FOR) [This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. implies that the Handling Company will request an outside agency to perform the service required. The charge of the outside agency shall be paid by the Carrier. The Handling Company assumes no liability toward the Carrier for such arrangements.

ARRIVAL HALL

The area of the airport where passengers collect their baggage on arrival. Exiting this area may involve passing through customs for international journeys.

ASSESSMENT

The process of determining and measuring whether an employee/product/service fulfills required standards and outcomes.

Note: The process may include a demonstration of knowledge, proficiency and/or competence as required and appropriate. The assessment can be conducted using a range of methods (e.g., written, digital and/or practical); however, it shall be conducted against a defined set of criteria. All assessments shall be documented accordingly.

ASSESSOR

means a competent person who can formally assess a trainee's achievement of theoretical knowledge and practical competences to the expected standard and is an objective measure.

ASYMMETRICAL LOAD LIMITATION

Maximum load acceptable on each side of the compartment floor in relation with each other (also unsymmetrical load limitation).

ATTENDANT—CARGO

Person travelling for the specific purpose of supervising cargo needing special attention.

AUDIT

The structured, independent, and objective process for obtaining and evaluating evidence to determine the level of conformity with specific standards, rules, regulations, or other applicable requirements.

AUDIT TEAM

A group of auditors coordinating and working together to conduct an Audit or Assessment.

AUDITOR INDEPENDENCE

An auditor is independent of the functional area or the manager under audit. Auditor impartiality or functional independence would be considered compromised when the auditor is subjected to any performance appraisal activity (attached or not attached to remuneration) by the manager in a functional area under audit.

AUTHORITY

The delegated power or right to:

- Command or direct
- Make specific decisions
- Grant permission and/or provide approval
- Control or modify a process

a. REGULATORY AUTHORITY A government agency or other administrative body that exercises regulatory or oversight control over operations or activities within a defined jurisdiction.
b. NATIONAL AVIATION AUTHORITY (NAA) The regulatory authority that governs civil aviation within a state. See Regulatory Authority. Equivalent term: Civil Aviation Authority (CAA). Examples: CAA, FAA, DGAC, CASA.

Note: In GOM, use of the term Authority has the same meaning as the NAA of the state of the operator.

AUTHORISED REPRESENTATIVE

[This definition is used in AHM 850 SICA]. shall have the meaning set out in Article 6.

AUTOMATED LOAD PLANNING

Load planning performed using an electronic data processing (EDP).

AUTONOMOUS GSE PROVIDER

A company responsible for developing the technology used to automate GSE. Includes both GSE manufacturers that also develop GSE automation technology and technology companies that develop GSE automation technology but are not necessarily GSE OEMs.

B

BACKGROUND CHECK

A check of a person's identity and previous experience, including where legally permissible, any criminal history, as part of the assessment of an individual's suitability to implement a security control and/or for unescorted access to a security restricted area.

BAGGAGE

The personal property or other articles of a passenger or crew member that is transported on an aircraft. Equivalent Term: Luggage.

a. **CABIN BAGGAGE** Any baggage that is or is intended to be brought onto an aircraft in the custody of a passenger or crew member for stowage in the cabin. Operators set their own standards for size, weight and number of pieces permitted as cabin baggage. Equivalent Terms: Hand Baggage, Unchecked Baggage, Carry-on Baggage.
b. **CHECKED BAGGAGE** Passenger baggage that has been taken into custody by the 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 loaded into the hold (e.g., due to physical size/weight restrictions, lack of cabin stowage space). Equivalent Terms: Hold Baggage, Registered Baggage, Registered Luggage.
c. **CONNECTION BAGGAGE** Any baggage that is transferring between flights during the baggage journey. Equivalent terms: Transfer Baggage, Transit Baggage.
d. **CREW BAGGAGE** Any baggage which is the property of operating crew or supernumerary, and which is separately identified.
e. **FRAGILE BAGGAGE** Any baggage that is declared as fragile by the passenger and must be labeled to notify handlers.
f. **HEAVY BAGGAGE** Any baggage that exceeds 23 kg (50 lb.) in weight and must be labeled to notify handlers.
g. **HOLD BAGGAGE** Any baggage that is carried in the hold of passenger aircraft. This definition is also used in AHM 810 SGHA and in AHM 820 SGHSA] See Baggage-Checked.
h. **MISHANDLED BAGGAGE** Any checked baggage that has been involuntarily or inadvertently separated from passengers or crew members.
i. **LATE BAGGAGE** Any baggage that has arrived late for a flight or late at the reclaim carousel.
j. **PRIORITY BAGGAGE** A baggage belonging to commercially important passengers.
k. **RUSH BAGGAGE** Any baggage that has missed the flight for which it was intended and will now travel without the passenger for the remainder of the journey.
l. **STANDBY BAGGAGE** Any baggage that is carried by passengers travelling on a standby or space available basis.

m. **TRANSFER BAGGAGE** Any baggage that has been transported on a flight to a certain location, and then is offloaded and transferred to another flight within a defined time period for transportation to another location.
n. **UNACCOMPANIED BAGGAGE** Any checked baggage that has been loaded into an aircraft that does not have the owner/passenger also on board.
o. **UNCLAIMED BAGGAGE** Any baggage that arrives at an airport on a flight and is not picked up or claimed by a passenger or crew member.
p. **UNIDENTIFIED BAGGAGE** Any baggage at an airport, with or without a baggage tag, that has not been picked up by or identified with a passenger or crew member.

BAGGAGE BUILD

The allocated output for baggage from the Baggage Handling System (BHS). Baggage will be loaded into ULDs at this point and, generally, baggage will be reconciled here.

BAGGAGE RECONCILIATION

A security process that matches passengers with their checked baggage and ensures the passenger and baggage travel together on the same aircraft.

BALANCE CONDITION

Numeric expression of the position of the center of gravity.

BALANCE LIMITS

End points forward and aft of the range within which the center of gravity must lie for safe flight.

BALLAST

Deadload weight carried to achieve a balanced condition.

BARRIER NET

Restraining divider between compartments.

BARRIER NET LOAD LIMITATION

Maximum weight that a barrier net can withstand under emergency forward load factors.

BASIC INDEX (BI)

Numerical expression of the center of gravity of the aircraft at its basic weight.

BASIC WEIGHT (BW)

Basic Empty Weight or Fleet Empty Weight–includes all fixed equipment, system fluids, unusable fuel and configuration equipment (including galley structure).

BAY

Subdivision of a containerized/palletized compartment, i.e. unit load device position.

BEHAVIOR

The way a person responds, either overtly or covertly, to a specific set of conditions, which is capable of being measured.

BEST PRACTICE

A strategy, process, approach, method, tool or technique that is generally recognized as being effective in helping an operator achieve operational objectives.

BOARDING

Equivalent to term "Embarkation", means passengers entering an aircraft.

BONDED STORE ITEMS

[This definition is used in AHM 850 SICA]. Means all commissary items boarded as part of inflight catering and requiring separate storage and inventory control due to their duty-free status, including without limitation wines, spirits, duty free goods, etc.

BREAKING STRENGTH

The breaking strength quoted for a lashing or tie-down fitting represents the maximum load which an item of equipment (lashing or lashing point) can sustain without:

a. loss in strength due to deformation under repeated application of load during normal flight conditions
b. risk of breakage at 1G.

BULK

Loading piece by piece.

BULKHEAD

Rigid partition.

BULKHEAD—STRESSED

Bulkhead which in combination with the aircraft structure has been designated to restrain load.

C

CABIN

Area where passenger seats are installed.

CABIN ACCESS DOOR

A door in the aircraft fuselage utilized for gaining entry and exiting the passenger cabin. Equivalent term: Cabin Entry Door. See "Aircraft Access Doors"

CALIBRATION

The application of specifically known and accurately measured input to ensure an item will produce a specifically known output that is accurately measured or indicated. Calibration includes adjustment or recording of corrections, as appropriate.

CAPTAIN

A person qualified to be the pilot-in-command of an aircraft. See Pilot-in-Command. Equivalent term: Commander, Pilot-in-Command.

CARGO

Any property carried or to be carried in an aircraft, other than mail or other property carried under the terms of an international postal convention, baggage or property of the carrier; provided that baggage moving under an air waybill or a shipment record is cargo. (Equivalent term: goods) Freight. See COMAT (Company Material).

a. REVENUE CARGO is transported on an aircraft for commercial purposes; generates revenue for the operator.
b. NON-REVENUE CARGO is transported on an aircraft for non-commercial purposes; does not generate revenue for the operator.
c. TRANSFER CARGO AND MAIL Cargo and mail shipments departing on an aircraft other than that on which it arrived.
d. VALUABLE CARGO A cargo shipment that contains one or more valuable articles (as specified in the IATA Cargo Services Conference Resolutions Manual, Resolution 012).

Notes:

1. COMAT (Company Material) is non-revenue cargo.

2. In GOM, non-revenue cargo and revenue cargo are identically addressed for the purposes of handling, loading, securing and transporting.
3. In GOM, mail is considered to be an item of cargo; therefore, any reference to cargo also includes mail.

CARGO

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means any property transported under an Air Waybill or a shipment record.

CARGO COMPARTMENT

The area of an aircraft that may be utilized for the transport of cargo and/or baggage. There are different classifications of cargo compartments and, depending on the aircraft type and/or configuration, some cargo compartments are accessible by the crew in flight, while others are not. Equivalent terms: Cargo Hold, Cargo Area, Baggage Hold, Baggage Compartment

CARGO COMPARTMENT FIRE SUPPRESSION SYSTEM

A portable or built-in method for fire suppression that does not cause dangerous contamination of the air within the aircraft, and provides a means to contain, or to detect and extinguish, fires that might occur in such a way that no additional danger to the aircraft is caused. Such systems cannot affect the ability of the flight crew to maintain controlled flight and may also take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device or dangerous goods. In aircraft with cargo compartments accessible to the flight crew or from the passenger compartment (combi aircraft), a crew member with access to a fire extinguisher, approved or accepted for the purpose by the state of the operator, can satisfy the means for fire suppression. Such crew member action, when used in combination with fixed fire detection systems and fire resistance materials in the applicable areas, as approved or accepted by the state, meets the definition of a fire suppression system.

CARGO LOADING SYSTEM (CLS)

A conveyor system installed on the floor of an aircraft that allows loading and unloading of ULDs into the aircraft; incorporates a suitable restraint system to secure ULDs in the parked position. See Unit Load Device (ULD). Equivalent term: In-plane Loading System.

CARGO RESTRAINT SYSTEM

A system in the aircraft designed to keep cargo from moving within the aircraft as a result of loads exerted during normal and emergency aircraft ground and flight maneuvers; includes nets, seat tracks, pallet locks, side restraints and roller trays; may also include a 9G cargo net or 9G rigid barrier/bulkhead (i.e., a net or barrier that is stress-tested for a load of nine times the force of gravity) when cargo is carried on the same deck as the flight crew and/or passengers or supernumeraries). Equivalent term: 9G system. See: Aircraft Pallet Net

CARRIER'S AIRCRAFT

[This definition is used in AHM 810 SGHA, AHM 820 SGHSA and AHM 850 SICA]. Means any aircraft owned, leased, chartered, hired or operated or otherwise utilized by or on behalf of the Carrier and in respect of which the Carrier has either expressly or implicitly contracted, instructed or otherwise requested the Handling Company to perform or carry out any ground handling service(s).

CARRIER INSTRUCTIONS

[This definition is used in AHM 850 SICA]. Means any items or services purchased by the Caterer from a third party designated by the Carrier and contracted by the Caterer following written request from the Carrier for the supply of these items, or delivery of these services, solely for the purpose of the provision of the Services, to the Carrier only.

CARRIER NOMINATED PRODUCTS

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means the individual or organization authorized by the Carrier to act on the Carrier's behalf in matters concerning Article 4.

CARRIER'S REPRESENTATIVE

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means the individual or organization authorized by the Carrier to act on the Carrier's behalf in matters concerning Article 4.

CARRIER SPECIFICATIONS

[This definition is used in AHM 850 SICA]. Means written procedures, instructions, directions and/or regulations pertaining to the Scheduled Services provided by the Carrier to the Caterer from time to time during the Term. These shall include, but not limited to, menu details, menu specifications, meal loading charts, tray setting instructions and galley loading diagrams. These may also include relevant technical instructions on how to operate aircraft doors, if applicable.

CARRIER SUPPLIED ITEMS

[This definition is used in AHM 850 SICA]. Means

a. all items supplied by the Carrier to the Caterer and
b. all items purchased by Caterer under the terms of a contract between Carrier and third-party supplier required for the provision of the Services, and may include without limitation branded napkins, plastic cups, wines, spirits, snacks, frozen casseroles, and Carrier branded items etc.

CARRIER

[This definition is used in AHM 810 SGHA]. The air carrier issuing the ticket (or air waybill) and all air carriers that carry or undertake to carry the passenger and/or his baggage (or the cargo) thereunder or to perform any other services related to such air carriage.

CENTER OF GRAVITY (C of G).

Point at which an aircraft would balance if it were possible to suspend it at that point.

CERTIFICATION

A formal evaluation and confirmation by or on behalf of the appropriate authority for aviation security that a person possesses the necessary competencies to perform assigned functions to an acceptable level as defined by the appropriate authority.

CHILDREN

Persons between the ages of 2 and 12 years.

CHORD

Width of the wing on an airplane.

CLASS

Segregation of passengers according to the facilities and services offered.

COCKPIT

That part of an aircraft from which the flight deck crew control the aircraft.

COMAT (Company Material)

Any non-revenue cargo that is owned by or is for use by the operator and is transported on the operator's aircraft. See Cargo. Equivalent term: Company Supplies

COMBINED LOAD LIMITATION

Maximum combined load acceptable on all decks (lower, main and upper decks, as applicable) in the section between a given forward and aft location (station/balance arms).

COMPANY—HANDLING

[This definition is used in AHM 810 SGHA]. A company/organization appointed by an airline to perform ground handling functions.

COMPARTMENT LOAD LIMITATION

Maximum load acceptable in a compartment.

COMPETENCE

means a combination of skills, knowledge and attitudes required to perform a task to the defined standard.

COMPLIANCE

The state of being in accordance with rules or requirements specified in standards or regulations.

COMPRESSIBLE LOAD

Compressible (or crushable cargo) load that can be used to prevent damage to, or penetration of, the barrier net or aircraft structure, in the event of rapid deceleration.

CONDITIONAL

Format element marked "C" becomes mandatory under certain circumstances which have to be specified in the table of format. The element may be omitted if these circumstances do not prevail.

CONDITIONAL ACCESS ZONE

One or more demarcated areas of the airside where vehicle access is prohibited or restricted to certain vehicles according to criteria set by the responsible authority. The designation as a conditional access zone can be permanent or temporary, depending on traffic, time of day, season, etc.

CONFIGURATION

Planned utilization layout of aircraft interior space.

CONFORMITY

Fulfilment of specifications contained in standards or recommended practices; under IOSA/ISAGO, conformity means specifications are documented and/or implemented by the Operator/Provider.

CONSIGNMENT

Which is equivalent to the term "Shipment". One or more pieces of goods accepted by the carrier from one shipper at one time and at one address, receipted for in one lot and moving on one air waybill to one consignee at one destination address.

CONSIGNMENT NOTE

See "Air Waybill".

CONTACT LOAD LIMITATION

Maximum load acceptable in direct contact with the aircraft floor per m2 (ft2).

CONTAINER

See "Aircraft Unit Load Device".

CONTRIBUTING FACTORS

Anything that affects how a person does his/her job can be a contributing factor for an accident or incident. Examples of contributing factors include: work area/environment, equipment/tools, communication, ergonomics, procedures/task/training, individual factors, leadership/supervision, and organizational. A contributing factor can increase the likelihood or severity of an accident/incident.

CONVENTION

[This definition is used in AHM 850 SICA]. Means international conventions applicable to this Agreement from time to time, including but not limited to the Warsaw Convention and the Montreal Convention.

COORDINATION

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA] means to collect and communicate operational information to the respective parties at the direction of the Carrier, as required to perform the services provided to the Carrier by third party at the location(s). Coordination does not include the Handling Company's self-management of its own activities including those subcontracted.

CORRECTIVE ACTION

Action to eliminate the cause(s) and prevent the recurrence of an existing (detected) non-conformance/non-compliance, or an existing (detected) undesirable condition or situation.

CORRECTIVE ACTION PLAN (CAP)

The plan of an operator or provider to close a Finding or Observation through implementing comprehensive and permanent corrective action.

CORRECTIVE ACTION REPORT (CAR)

A document that describes each Finding and Observation that results from an Audit and provides a history of a Finding or Observation and the associated steps taken toward closing them.

CREW—CABIN

Crew members, other than flight deck crew.

CREW—FLIGHT OR COCKPIT

Crew members whose duties require them to be on the flight deck.

CREW MEMBER

A member of either the flight crew or cabin crew, when used in the plural (i.e., crew members), refers to flight and cabin crew members collectively. Equivalent terms: Flight Crew Member, Cabin Crew Member.

CRISIS

is a major aircraft incident or other type of adverse event (including non-aircraft events) that results in fatalities, serious injuries, considerable damage and/or significant disruption to aircraft operations.

CUMULATIVE LOAD LIMITATION

Maximum load acceptable forward or aft of a given location (station/balance arm or section). Can also be referred to as "Fuselage shear load" or "Integrated load".

CURTAIN VERSION

Cabin configuration.

D

DAMAGE—JET BLAST (jet blast damage)

Any damage to an aircraft on the apron caused by jet blast interference from another aircraft.

DAMAGE RATE

Frequency of damage to aircraft on the apron expressed in terms of number of occurrences per 1,000 departures.

DAMAGE—UNREPORTED

Any damage found on the aircraft that was not previously reported at the time of occurrence.

DANGEROUS GOODS

Articles or substances that are capable of posing a risk to health, safety, property or the environment, and that are shown in the list of dangerous goods in the ICAO Technical Instructions or IATA Dangerous Goods Regulations (DGR), or are classified according to those Instructions or Regulations.

Equivalent term: Hazardous Materials (HAZMAT).

DATABASE

Any structured collection of information, records or data that is specifically organized in a system for rapid search and retrieval.

a. ELECTRONIC DATABASE A database whereby information is accessed and managed electronically through use of a computer.

b. DATA EXCHANGE MESSAGE (DEM)—SEMI—PERMANENT (semi-permanent data exchange message)
c. DEM is a standard message for short notice alteration of existing semi-permanent data.

DEADLOAD

Baggage, cargo, mail, ballast and equipment in compartments not included in the dry operating weight of the aircraft.

DEADLOAD INDEX (DLI)

Index effect of the deadload. See index unit.

DECK

Structural floor level. For aircraft having one structural level only, this floor level shall be referred to as the main deck. For aircraft having more than one structural floor level, the different floor levels shall be referred to as "lower deck", "main deck" and "upper deck", starting from bottom to top.

DEFECT

Any confirmed abnormal condition associated with an aircraft, engine or component.

- MAJOR DEFECT A defect that could affect the safety of the aircraft or cause the aircraft to become a danger to people or property.

DE-ICING

Procedure by which frost, snow, slush, or ice are removed from an aircraft in order to provide clean surfaces and components. [ref. AS6285].

DE-ICING/ANTI-ICING

Combination of or referring to both of the procedures for "de-icing" and "anti-icing." It may be performed in one or two steps. [ref. AS6285].

DENSITY

The relationship of weight to volume, i.e., kg per m3, kg/m3 or kg/l (lb. per ft.3 or lb./ft.3).

DEPARTURE

A departure is counted every time an aircraft takes off.

DEPARTURE CONTROL SYSTEM (DCS)

[This definition is also used in AHM 810 SGHA]. An automated method of performing check-in, capacity control, load control and dispatch of flights.

DEPORTEE

A person who had legally been admitted to a state by its authorities or who had entered a state illegally, who later is formally ordered by the competent authorities to leave that state.

DESTINATION

See "Airport—Destination".

DIRECT LOSS

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. A loss arising naturally or directly from an occurrence and which excludes remote, indirect, consequential, or special losses or damages, such as loss of revenue or loss of profit.

DISASTER VICTIM REGISTRATION

The registration and accounting of victims and contact information for next of kin on forms/questionnaires.

DRY STORE ITEMS

[This definition is used in AHM 850 SICA]. Means all non duty-free commissary items boarded as part of inflight catering including without limitation snacks, canned soft drinks, napkins, and passenger amenities.

E

ELECTRONIC DATA INTERCHANGE (EDI).

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means the Computer-to-computer (application-to-application program processing) transmission of business data in a standard format.

ELECTRONIC DATA PROCESSING SYSTEM (EDP)

Electronic data processing system, i.e., electronic computer system. Equivalent term: Computer.

EMBARKATION

See "Boarding".

EMERGENCY

Situation requiring immediate attention and remedial action. May Involves injury, loss of life, damage to the property, or catastrophic interference with the normal activities. A sudden, unexpected or impending situation. (The Law Dictionary).

EMERGENCY EXIT

A door, window exit or any other type of exit (e.g., hatch, tail cone exit) used as an egress portal to allow maximum opportunity for cabin evacuation within an appropriate time period.

EMERGENCY KITS

Preprepared kits required to perform tasks at various locations by internal and external resources from different organizations, including

a. Computers/tablets/mobile phones with recharging devices
b. Manuals/checklists
c. Writing pads and pens
d. Phone directories
e. Forms to be used in various reception centers (may have been provided by the airport operator or airline)
f. Identification vests (e.g., for local incident coordination center (LICC) members to ensure immediate recognition by passengers/families)

ENGINE (AIRCRAFT)

The basic aircraft engine assembly plus its essential accessories as supplied by the engine manufacturer.

EN ROUTE

Equivalent to "Through". Movement or point between point of departure and point of destination.

EQUIPMENT IN COMPARTMENT (EIC).

Equipment which is carried on the aircraft but which is not manifested and which is not elsewhere included in the weight composition, such as additional flight kit.

a. FKT—flight kit; Note: When a flight kit is included in the DOW/DOI it shall be identified with a flight kit tag or sticker (see example) and no mention of the flight kit shall be made as EIC.
b. CSU—catering equipment and food supply hold loaded not used on flight
c. BAL—ballast hold loaded (see AHM 537, 3.2)
d. BED—stretcher installed in cabin
e. BEH—stretcher equipment hold loaded
f. COM—company mail
g. EIC—types of equipment in compartments not covered by the above specified categories, e.g., loading accessories not in use
h. ELD—extra load devices

EQUIPMENT RESTRAINT AREA (ERA)

The area of the apron bordered by a red line known as the Equipment Restraint Line, or otherwise indicated, in which an aircraft is parked during ground operations. Equivalent Term: Equipment Safety Area

ERP POST-HOLDER

(ERP manager)-A designated manager with appropriate qualifications and authority to manage and be responsible for the development, implementation and maintenance of the corporate ERP. The exact title of the manager designated as responsible for the corporate ERP may vary depending on the organization.

ERROR

An error is a human action (behavior) that unintentionally departs from the expected action (behavior). People do not intend to make errors (mistakes, slips, lapses).

- Mistake: Action or decision taken that a person thinks is correct but is not.
- Slip: Attention failure or action taken that was not planned.
- Lapse: Memory failure (e.g., forgot a requirement or procedure).

ERROR—LOAD (LOAD ERROR)

Discrepancy between stated load provided during data exchange to handlers and flightcrew (via UWS/LIR/Load-sheet/ACARS) vs. actual load.–may be unit number, position, weight.

EVALUATION

means a process used to review the overall effectiveness of a training program which may consider efficiency, pass rates, feedback from participants and other stakeholders.

EVALUATOR/ON—THE—JOB TRAINER

A person, who teaches practical skills through the demonstration on-the-job and assesses, examines or judges the on-job performance of the student. This role is usually performed by operational employees.

F

FACILITATION (FAL).

A general term reflecting the action being taken within the airline industry with governments and other bodies to reduce costs, simplify procedures and improve formalities.

FAMILY MEMBER

A parent, sibling, child, spouse, grandparent, or grandchild.

FATIGUE

A physiological state of reduced mental and/or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.

FLIGHT

The operation of an aircraft between two or more points.

FLIGHT NUMBER

The alpha-numerical designator of a flight, prefixed by a two-character or three-character designator.

FLOATING PALLET

An Aircraft Unit Load Device (ULD), including its load, which is positioned outside any predefined pallet position, and is not secured by the pallet locking devices of the ULD restraint system, but is restrained to the aircraft structure by means of tie-down fittings and lashings.

FOREIGN OBJECT DEBRIS—FOD

An inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations.

FREE MOVEMENT AREAS

One or more areas of the airside that do not contain specific road markings to indicate where and in which direction vehicles may travel but which are nevertheless regularly used by vehicles.

FUEL

a. TAXI FUEL is the fuel required from engine start to the start of the take-off roll.
b. TRIP FUEL is the amount of fuel planned to be consumed from take-off to the station of first intended landing. Note: Trip fuel includes alternate fuel, holding fuel, contingency fuel, reserve fuel, additional fuel and/or tanker fuel.
c. TAKE-OFF FUEL is the amount of fuel on board less the fuel consumed before the take-off run.
d. TAKE-OFF ALTERNATIVE FUEL is the amount of fuel on board, less the fuel consumed before the take-off run.

FUELING SAFETY ZONE

An area with associated restrictions that is established on the ramp around the aircraft fueling receptacles, tank vents and around the fueling equipment during aircraft fueling operations. Equivalent term: Refueling Safety Zone

FUELING

and defueling, aircraft fuel tank calibration, aircraft fuel flow tests and the draining of aircraft tanks.

G

GO TEAM

Members are individuals or trained airline personnel with very good knowledge or expertise in their respective fields (e.g., humanitarian response assistance, crisis communications, logistics, insurance, legal, investigation, maintenance), dispatched within hours to or near an

accident or incident site to organize, coordinate, support and execute tasks in coordination with the affected or nearest station.

G FORCES

Increase/decrease of gravity forces exerted upon load during flight. Acceleration or deceleration can cause the weight of a load to increase or decrease and the change is expressed in "G". Thus, 2G would indicate that an item is, or must be, capable of withstanding, double the weight.

GALLEY

An integral part of the aircraft where pantry/catering material is stored.

GATE DELIVERY ITEMS

Items that are carried by the passenger to the gate and then placed in the hold for the flight.

GENERAL DECLARATION

A standard document giving certain details about a flight required for aircraft clearance by government authorities in certain countries.

GROUND HANDLING INCIDENT

An occurrence (i.e., aircraft damage, injury, equipment damage, loading event/irregularities, aircraft servicing issues) other than an accident.

GROUND HANDLING SERVICES PROVIDER (GHSP)

A provider acting as the handling agent for one or more customer airlines, providing one or more of the ground services as defined in SGHA. Equivalent Terms "Handling Company" and "Provider". See Agent–Handling.

a. HANDLING COMPANY [This definition is used in AHM 810 SGHA]. A company/organization appointed by an airline to perform ground handling functions.
b. PROVIDER An organization that delivers services (e.g., maintenance, ground handling, training) to an air operator on a contractual basis. See Ground Handling Services Provider (GHSP).

Equivalent terms: Service Provider, Service Vendor.

GROUND OPERATIONS

The conduct of operational activities associated with the ground services that comprise ground handling. See Ground Handling.

GROUND SUPPORT EQUIPMENT (GSE)

Any piece of mobile equipment, whether or not powered or self-propelled, purpose designed, built and used for ground handling, servicing or field maintenance of aircraft on the ramp area of an airport.

H

HARD COPY

A printed copy of an electronically transmitted text.

HAZARD

A condition or an object with the potential to cause harm. In aviation, this refers to those conditions or objects that can potentially cause death, injury to personnel, damage to equipment or structure, loss of material, or the reduction of the ability to perform a prescribed function.

HIGH RISK CARGO OR MAIL

Cargo or mail shall be considered high risk if:

- specific intelligence indicates that the cargo or mail poses a threat to civil aviation; or
- the cargo or mail shows anomalies or signs of tampering which give rise to suspicion.

HOLD

A space confined by ceiling, floor, walls, and bulkhead, used for carrying load.

HUMAN FACTORS

Principles applied to aeronautical design, certification, training, operations and maintenance to ensure equipment, systems, processes and procedures take into account human capabilities and limitations, as well as the safe interface between the human and system components, for the purpose of optimizing human performance and reducing human error.

I

IATA

International Air Transport Association. [This definition is also used in AHM 810 SGHA and in AHM 820 SGHSA].

IATA MANUALS

a. AIRPORT HANDLING MANUAL (AHM) A manual published by IATA that defines industry standards in the following areas relevant to airline ground operations: passenger handling; baggage handling; cargo and mail handling; load control; aircraft handling and loading; aircraft movement control; airside management and safety; airport handling specifications for GSE; environmental specifications for ground handling operations; ground handling agreements.
b. IATA CARGO HANDLING MANUAL (ICHM) An IATA manual that contains the latest procedures and recommended practices for the safe and efficient handling of cargo.
c. IATA GROUND OPERATIONS MANUAL (IGOM) An IATA manual that is the source for the latest industry-approved standards harmonizing ground handling processes and procedures for frontline personnel (see Airport Handling Manual (AHM)).
d. IGOM [This definition is used in AHM 850 SICA] means IATA Ground Operations Manual.
e. DANGEROUS GOODS REGULATIONS (DGR) A document (manual) published by IATA to provide procedures for the shipper, operator and GHSP, by which articles and substances classified as dangerous goods can be safely transported by air on commercial flights. Information in the DGR is derived from the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions).
f. LIVE ANIMALS' REGULATIONS (LAR) A document (manual) published by IATA to provide procedures for shippers, freight forwarders, operators and animal care professionals for the transport of animals by air in a safe, humane and cost-effective manner, and in compliance with airline regulations and animal welfare standards.
g. ULD REGULATIONS (ULDR) A document (manual) published by IATA to provide technical and operational standard specifications, regulatory requirements and airline requirements applicable to overall ULD operations. See Unit Load Device (ULD).

ICAO

International Civil Aviation Organization. [This definition is also used in AHM 810 SGHA and in AHM 820 SGHSA].

ICAO Annexes

Additional sections to the ICAO Convention, which are guidelines provided for the various national aviation authorities for use in developing the civil aviation rules and regulations that govern flight operations in their respective states. Equivalent term: Annexes

IGLOO—NON-STRUCTURAL

A bottomless rigid shell made of fiberglass, metal or other suitable material. Its shape conforms to the contours of cargo aircraft envelopes. It covers the maximum usable area of

an aircraft pallet to which it is secured during flight. This shell used in combination with an aircraft pallet and net assembly is known as a non-structural igloo.

ILL HEALTH

Work-related ill health is any health condition caused, or aggravated, by the job or the job environment such as asthma, stress, slipped disc.

IMPLEMENTED (IN OPERATIONS)

The state of an operational specification as being established, activated, integrated, incorporated, deployed, installed, maintained and/or made available as part of the operational system, and monitored and evaluated as necessary for continued effectiveness.

IMPROPERLY DOCUMENTED PERSON

A person who travels, or attempts to travel:

with an expired travel document or an invalid visa

with a counterfeit, forged or altered travel document or visa

with someone else's travel document or visa

without a travel document

without a visa, if required

INADMISSIBLE PASSENGER (Person)

A person who is or who will be refused admission to a State by its authorities. As per IATA RESO 701 A passenger who is refused admission to a country by authorities of such country, or who is refused onward carriage by a Member or government authority at a point of transfer, e.g., due to lack of a visa, expired passport, etc.

INCIDENT

a. AIRCRAFT INCIDENT An occurrence other than an aircraft accident, associated with the operation of an aircraft, which affects or could affect the safety of operations. An incident is considered 'serious' when it involves circumstances indicating that there was a high probability of an accident associated with the operation of an aircraft (ICAO Annex 13).
b. GROUND HANDLING INCIDENT An occurrence (i.e., aircraft damage, injury, equipment damage, loading event/irregularities, aircraft servicing issues) other than an accident

INCOMPATIBLE (DANGEROUS GOODS)

Description of dangerous goods which, if mixed, would be liable to cause a dangerous evolution of heat or gas, or produce a corrosive substance.

INDEX UNIT

is a unit used to simplify the calculation of the influence of weight on balance.

INFANT

A child that, for the purpose of identification as a passenger, is typically defined as being less than two years of age.

INFLIGHT CATERING EQUIPMENT

[This definition is used in AHM 850 SICA]. Means any rotable and galley equipment or any other equipment provided by the Carrier and used by the Caterer for the provision of the Services.

INFLIGHT SUPPLIES

[This definition is used in AHM 850 SICA]. All items intended to be sold, used or made available for any purpose or activity on board during flight, other than items carried by persons other than passengers.

INJECTION WATER

Fluid carried on an aircraft to improve the performance of the aircraft during take-off under certain ambient conditions.

INJURY

Work related injury includes any deterioration of the health conditions of worker generated by an event occurring on the job as a direct result of the tasks allotted to the specific job.

IN POSITION

Equipment is stationary in the correct position, hoses, cables, and ducts connected, auto sensors, stabilizers deployed and safety switches engaged. Equipment is ready to perform its intended function.

INSPECTION

An independent documented process to evaluate conformity by observation and judgment, accompanied as appropriate by measurement, testing, or gauging, to verify compliance with applicable requirements.

INTEGRAL AIRSTAIRS

Stairway contained within or built into the aircraft fuselage, which may be deployed on the ground to provide a means for persons to enter or exit the aircraft. Equivalent term: Integral Stairway.

INTELLECTUAL PROPERTY

[This definition is used in AHM 850 SICA] Equipment is ready to perform its intended function.

a. CARRIER INTELLECTUAL PROPERTY shall have the meaning set out in Sub-Article 8.15.
b. CATERER INTELLECTUAL PROPERTY shall have the meaning set out in Sub-Article 8.16.
c. JOINTLY DEVELOPED INTELLECTUAL PROPERTY shall have the meaning set out in Sub-Article 8.17.

INTERCHANGE

Transfer between different types of aircraft, or usable on different types of aircraft, whether owned by the same carrier or by different carriers.

INTERFACE

A translation function between a user and a system or between a user and a number of systems or between two or more systems.

INTERLINE

Transfer from one carrier to another.

IOSA

The abbreviation and acronym for the IATA Operational Safety Audit.

ISAGO

The abbreviation and acronym for the IATA Safety Audit for Ground Operations.

[This definition is used in AHM 850 SICA] Standards means IATA Safety Audit for Ground Operations. Standards as published in the ISAGO Standard Manual. For the purposes of this contract, following ISAGO standards does not mandate ISAGO certification.

ISSA

The abbreviation and acronym for the IATA Standard Safety Assessment.

ITEMS WITH A LIMITED RELEASE TAG

Items that are carried by the airline without accepting liability for damage or loss due to a preexisting condition (i.e., baggage noticed as being damaged upon acceptance, baggage arriving to check-in late).

J

JOB CARD

See Task Card. Equivalent term: Work Card.

JOINING

Boarding or loading at a transit station.

JUMP SEAT

A seat located at the rear of the flight deck and/or in the cabin or cargo compartment for use by crew members, supernumeraries, cargo attendants, observers or other approved persons.

JUST CULTURE

A culture in which front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but where gross negligence, willful violations and destructive acts are not tolerated. (EC No. 691/2010).

K

KNOWN CONSIGNOR

(sometimes referred to as Known Shipper) An originator of shipments for transportation by air who has established business with a regulated agent or an Operator on the basis of having demonstrated satisfaction of specific requirements for safe transportation of cargo.

L

LANDING—WEIGHT

See "WEIGHT—LANDING".

LANDING GEAR SAFETY PIN

Prevents gear retraction. Equivalent term: Downlock Equipment–NLG and MLG.

LASHING

Secures a load, with maximum restrained capacity, in the aircraft to prevent it from moving and reduce risk of aircraft damage and/or personnel/passenger injury:

a. EMBRACED LASHING fastens the rope/strap from one tie-down fitting, across/over/around the load, fastening to another tie-down fitting.
b. DIRECT LASHING fastens the rope/strap from tie-down fittings to the load.

See "Tie-Down".

LAUNDRY ITEMS

[This definition is used in AHM 850 SICA] Means all Carrier linen boarded by the Caterer as part of inflight catering.

LAVATORY

A compartment or closet installed on an aircraft, with a toilet and typically washing facilities inside, which has structural walls and a door that, when closed, creates a fully enclosed and isolated interior space not visible from outside the compartment. Equivalent term: Toilet

LEFT

To be understood as left-hand side in the direction of flight.

LIAISE

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Communicate and maintain contact.

LIVE ANIMAL IN HOLD (AVIH)

Live animals that are carried in the pressured and heated aircraft hold. Must be reserved in advance. Equivalent terms: Animals Vivant in Hold, Live Animals.

LOAD

Means all items or persons carried in an aircraft other than fuel, that is carried in an aircraft and is not included in the basic operating weight of the aircraft.

LOAD

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means baggage, cargo, mail and any aircraft supplies including ballast.

LOAD CATEGORY

The nature of the load.

LOAD CONTROL

Process that ensures that an aircraft is safely and economically loaded for flight.

LOAD PLANNING

The part of the load control process that ensures a load is planned for safe transportation onboard the aircraft.

LOAD SECURING EQUIPMENT

See "Tie-Down—Equipment".

LOADED INDEX

An expression of the C of G of an aircraft after it has been fueled and/or loaded.

LOADING

Stowing load or ULDs on board the aircraft in accordance with loading instructions.

LOADING ACCESSORIES

Includes tie-down equipment, seat containers (for the carriage of load on passenger seats in the cabin of an aircraft), containers for carriage of load which have been installed after removal of seats, stretchers, any containers used for isolation or protection of goods, e.g., plastic bowls or plastic bags, garment racks, supporting planks and platforms, equipment for valuable cargo (pouches), collecting nets and bags, kennels for live animals and covers of any kind.

Note: Aircraft Unit Load Devices are not loading accessories.

LOADING INSTRUCTION

Instructions for loading of the aircraft produced by Load Control for the person responsible for aircraft loading.

LOADING INSTRUCTION REPORT (LIR)

Instructions for loading of the aircraft produced by Load Control for the use of the person responsible for aircraft loading. The LIR is signed by the person responsible for aircraft loading. It reflects the actual aircraft loading and includes any deviations that may have occurred during loading and requiring action by Load Control.

LOADING REPORT

Signed LIR, with any deviations recorded for action as required.

LOADSHEET

A legal document which states the weight data and the balance condition of the loaded aircraft for each individual flight. The term loadsheet includes provisional loadsheet, final loadsheet, ACARS loadsheet or any other approved form of transmission. The loadsheet includes the weight of the aircraft, crew, pantry, fuel, passengers, baggage, cargo and mail, as well as the details of the distribution of the load in the aircraft.

LOCAL INCIDENT COORDINATION CENTER (LICC)

A facility through which all local actions performed by station organizations of affected airlines and/or GHSPs will be coordinated and conducted. In aircraft-related emergencies, it could include both the departure and arrival airports.

LOCATION(S)

[This definition is used in AHM 850 SICA]. Means airport(s) at which the Caterer will provide the Services as set out in Annex(es) B.

M

MAIL—DIPLOMATIC

Governments' property carried under special agreements.

MAIL

Dispatches of correspondence and other items tendered by and intended for delivery to postal services in accordance with the rules of the Universal Postal Union (UPU).

MAIL—SERVICE

Correspondence inter- or intra-airline which is carried on an aircraft under special permission from postal authorities.

MAINTENANCE OF CONTINUOUS COMPETENCE (QUALIFICATION)

means that all operational employees shall have their knowledge and operational performance assessed periodically against specified criteria and required standards.

MANDATORY

A format element marked "M" contains information which forms a fundamental part of the procedure and must always be included.

MANEUVERING

Slow speed movement of GSE, typically involving tight turning radii (often turning from full lock to full lock) and stopping and changing direction for very short distances. This does not include docking or undocking.

MANIFEST—CARGO

A traffic document listing the details of the cargo to be carried on a flight.

MANIFEST—PASSENGER

A traffic document listing the names of passengers to be carried on a flight.

MAY

(Equivalent terms: need not/not required) Indicates that conformance is optional.

MEAL ORDER

[This definition is used in AHM 850 SICA]. Means the communication by the Carrier to the Caterer of the total number of passengers expected on a given flight by class of service, including crew members, and specifying the type of special meal requested by each passenger having ordered a special meal.

MEAN AERODYNAMIC CHORD (MAC)

The average length of the chord (width) of the aircraft wing.

MESSAGE

Where quoted it is assumed that the fastest possible means of sending a message will be used. This refers to SITA, telex or data link.

MOBILITY AIDS

Aids used by passengers to assist in their journey.

MONITORING

The process of observing, checking, measuring and/or assessing the performance of operations or operational functions for the purpose of determining if, or verifying that, operational requirements are being fulfilled. See Operational Function (Aircraft Operations).

MOTOR VEHICLE

An unmodified "over-the-road" vehicle used to carry passengers, personnel or goods on the apron.

MOVEMENT AREA

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

N

NEAR MISS

An unplanned occurrence that did not result in injury, illness or damage, but had the potential to do so.

NET WEIGHT

The difference between total weight and the tare weight.

NOSE GEAR STEERING BYPASS PIN

Deactivates the steering function. Equivalent term: Nose Wheel Steering Deactivation Pin, Lock Pin-Nose Gear Towing Lever, Steering Bypass Pin.

NOTE

Indicates an important point about which the manual user needs to be made aware.

NOTOC (NOTIFICATION TO CAPTAIN)

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 on board the aircraft. Equivalent terms: NOTAC (Notification to Aircraft Commander), NOPIC (Notification to Pilot-in-Command).

O

OBSTACLE(s)

A person or object that unexpectedly is in, or moves into, the normal path of a vehicle preventing it from continuing to follow its intended path. e.g., a person stepping into a roadway or a piece of baggage that has fallen in the roadway are obstacles, a paper cup in a roadway is not.

ON—LINE

Within one airline or one system or connected to a computer system.

OPERATIONS

The recurring activities of a company directed toward delivering a product or service.

Note: The term operations, as used in ISAGO, refers to activities carried out under Load Control, Passenger and Baggage Handling, Aircraft Handling and Loading, Aircraft Ground Movement, Cargo and Mail, and GSE management.

OPERATOR

An organization that holds an Air Operator Certificate (AOC) and engages in commercial passenger and/or cargo air transport operations. Equivalent terms: Air Operator, Airline, Carrier.

OPERATIONAL DESIGN DOMAIN (ODD)

Description of the specific operating domain(s) in which an automated function or system is designed to properly operate, including but not limited to roadway types, speed range, environmental conditions (weather, daytime/night-time, etc.), and other domain constraints. [Ref. As per US Department of Transportation (page 27 F.1)]

OPTIONAL

A format element marked "O" may be omitted if not required by the carrier's or by governmental regulations. Omission of this element is independent of all other elements and does not have any effect on other elements.

OUTSOURCING

The business practice whereby one party (e.g., an operator or GHSP) voluntarily transfers, usually under the terms of a contract or binding agreement, the conduct of an operational function to a second party. Under outsourcing, the first party retains responsibility for the output or results of the operational function even though it is conducted by the second party. Equivalent Term: Sub-contracting

OVERTAKING

Involves a moving vehicle and an obstacle or another vehicle, which is either stationary or moving, at a slower speed, in the same direction. The action of overtaking applies to the movement of the first vehicle as it goes around the other vehicle or obstacle either by entering the lane of opposing traffic or by moving outside the edges that define the width of the roadway.

P

PALLET—AIRCRAFT

A flat platform with flat undersurface of standard dimensions, on which cargo, baggage or mail is grouped and restrained by a compatible aircraft pallet net before being loaded as one unit onto the aircraft, and which is designed to be directly restrained by the aircraft Cargo Loading System (CLS). See also "Aircraft Unit Load Device".

PALLET NET—AIRCRAFT

Webbing or rope net used for restraining load onto an aircraft pallet. See "Unit Load Device" and "Cargo Restraint System".

PALLET EXTENSION WINGS

A part of equipment which can be installed on the short sides of a pallet in order to increase the loading capacity of such pallet up to the standard LD3, LD5, LD6, etc. contours.

PANTRY

Removable catering equipment.

PARKING

Parking means equipment is switched off and left unattended and not expected to be used in the immediate future. Parking considers when the vehicle is stationary before and after performing a service. Being stationary while performing a service is not included.

PARKING ZONE

Parking zone is considered as a designated area where equipment can be parked. It can be anywhere within the apron area including areas adjacent to ERA.

PASSENGER

A person that is transported on board an aircraft by an operator, mostly for commercial purposes. A passenger is not an operating crew member or a supernumerary.

Note: Non-operating crew members, company employees and employee dependents occupying passenger seats on passenger flights are considered passengers.

a. **DISRUPTIVE PASSENGER** A passenger who fails to respect the rules of conduct at an airport or on board an aircraft or to follow the instructions of the airport staff or

aircraft crew members, thereby disturbing the good order and discipline at an airport or on board an aircraft. Equivalent term: Unruly passenger.

b. **PASSENGER WITH DISABILITIES** (PWD) includes passengers with reduced mobility and passengers with non-visible disabilities which can be temporary or permanent conditions. Reduced Mobility is due to physical disability (locomotor or sensory), intellectual impairment, age, illness or any other cause of disability and who need some degree of special accommodation or assistance over and above that provided to other passengers.
c. **REDUCED MOBILITY PASSENGER (PRM)** A passenger with reduced mobility is understood to be any person whose mobility is reduced due to physical disability (locomotory or sensory), intellectual impairment, age, illness, or any other cause of disability and who needs some degree of special accommodation or assistance over and above that provided to other passengers. Note: Passenger with Reduced Mobility (PRM) will be in the AHM Ed. 43 aligned with the UN Convention on the Rights of Persons with Disabilities (CRPD) and International Civil Aviation Organization (ICAO) Manual on Access to Air Transport by Persons with Disabilities, using term Person/Passenger with disabilities (PWD) as official terminology.
d. **TRANSFER PASSENGERS** - Means passengers departing on an aircraft or flight other than that on which they arrived.
e. **SPECIAL CATEGORY PASSENGERS** Passengers that require special attention, specific guidelines to be followed and/or appropriate security procedures.
f. **UNSCREENED PASSENGER** A non-exempt passenger who has not been screened in accordance with the requirements of the appropriate national authority. This may include an originating passenger who has not been screened as well as a passenger who may have been screened at the point of origin or the previous transfer airport, but not in accordance with the regulations applicable in or recognized by the national appropriate authority.

PASSENGER(S)

[This definition is used in AHM 810 SGHA, in AHM 820 SGHSA and in AHM 850 SICA]. Means any person, both revenue and non-revenue, except members of the crew, carried or to be carried in an aircraft with the consent of the Carrier.

PASSENGER BOARDING BRIDGE (PBB)

A telescoping corridor that extends from an airport terminal to an aircraft for the boarding and disembarkation of passengers. Equivalent terms: Jetway, Air Bridge, Boarding Bridge, Loading Bridge, Loading Gate, Boarding Gate.

PASSENGER CLOSE OUT TIME

The time after which further passengers will not be accepted for carriage on that flight.

PASSENGER FLIGHT

A flight that carries passengers. See Passenger.

PASSENGER MANIFEST VERIFICATION

A procedure to ensure the accuracy of a passenger manifest to the greatest extent achievable.

PASSING

Involves a moving vehicle and an obstacle or another vehicle, which is either stationary or moving at a slower speed in the same direction. The action of passing applies to the movement of the first vehicle as it goes around the other vehicle or obstacle within the limits of the lane of travel.

PAYLOAD

The weight of passengers, baggage, cargo and mail and includes both revenue and non-revenue items.

PORTABLE ELECTRONIC DEVICE (PED)

Any electronic device that can be moved and contains its own power source. PEDs include laptops computers and mobile phones, handheld Global Positioning System (GPS) devices and navigation devices that can be detached from an aircraft.

PERSONAL INJURY

Any event at work resulting in first aid treatment beyond first aid, hospitalization or fatality.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Equipment or clothing worn by personnel to protect against operational injury and health hazards.

PILOT-IN-COMMAND (PIC)

The pilot designated by an operator as being in command of the aircraft and charged with responsibility for the operational control and safe conduct of a flight. Equivalent terms: Aircraft Commander, Captain, Commander.

PLAN

The formulation of action or series of actions designed to achieve a defined end result.

POLICY

The stated intentions and direction of an organization.

POLICY AND PROCEDURE MANUAL (PPM)

A generic name; other acceptable names include Ground Operations Manual, Ramp Handling Manual, Passenger Handling Manual.

POSITIONING

Equipment movement at slow speed within the ERA in close proximity to the aircraft to reach the correct position to perform the intended function. Includes deploying stabilizers, raising and aligning working platforms and other tasks necessary to make equipment ready to perform its intended function.

PROCEDURE

An organized series of actions accomplished in a prescribed or step-by-step manner to achieve a defined result.

PROCESS

One or more actions or procedures implemented in a coordinated manner to achieve a goal, a defined result or to satisfy a requirement.

PROGRAM

An organized set of processes directed toward a common purpose, goal or objective.

PROVIDE

[This definition is used in AHM 810 SGHA]. Implies that the Handling Company itself assumes responsibility for the provision of the service required.

PSYCHOACTIVE DRUG

or psychotropic substance is a chemical substance that acts primarily upon the central nervous system where it alters brain function, resulting in temporary changes in perception, mood, consciousness and behavior. Psychoactive substances are, for example: alcohol, opioids, cannabinoids, cocaine, other stimulants, hallucinogens. Not considered: tobacco or caffeine.

R

RAMP OPERATIONS

All aircraft activities that occur on an airport ramp area. Equivalent term: Tarmac Operations

REAL TIME

A computer system which processes the input and gives a response immediately or within seconds.

RECURRENT ASSESSMENT CONTINUOUS

periodic assessment of existing knowledge, skills and operational competence of personnel, during their day-to-day activities.

RECEIVING CARRIER

[This definition is used in AHM 820 SGHSA] Means a Carrier who receives Loads from a transferring carrier at a transfer point.

REGISTRATION—AIRCRAFT

A unique alpha/numeric designation for an aircraft.

REGULATED AGENT

An agent, freight forwarder or other entity that conducts business with an operator or representative of an operator, and provides security controls that are accepted or required by the applicable civil aviation security authorities with respect to cargo or mail.

REQUIREMENT

A specification that is considered an operational necessity; compliance is typically mandatory.

RESPONSIBILITY

An obligation to execute or perform assigned functions, duties, tasks or actions; typically includes an appropriate level of delegated authority; implies holding a specific office, title or position of trust. See Authority.

RESTRAINT

Permanent or removable fixture for the securing of load (see "Tie-Down", "Nets").

RESTRICTIONS—SEATING

The limitations applied to the occupying of certain seats to achieve a satisfactory balance and/or safety criteria.

RETRACTING

Hoses, cables, ducts disconnected, auto-leveler sensors and safety switches disengaged. Equipment is in the process of being removed from the aircraft. Activity includes pulling back

and lowering working platforms, stowing stabilizers and moving of the equipment away from the aircraft towards the outside of the ERA.

RETURN TO RAMP

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA] means return to parking positions after the initial departure from the stand.

RIGHT

To be understood as the right-hand side of the aircraft in the direction of flight.

RISK MITIGATION

The development and implementation of action(s) or measure(s) designed to reduce a risk to, and maintain such risk, at a level tolerable to the organization.

RISK OWNER

Person or entity with the accountability and authority to manage a risk.

ROOT CAUSE(S)

An initiating cause(s) of a causal chain which leads to an outcome (incident or accident). Commonly, root cause analysis is a method of analysis that focuses on identifying root causes, that are used to describe the depth in the causal chain where an intervention could reasonably be implemented to change performance and prevent an undesirable outcome or condition.

S

SAFETY ASSURANCE

The component of an SMS that comprises processes for:

a. Safety performance monitoring and measurement
b. Management of change
c. Continual improvement of the SMS

See Safety Management System (SMS).

SAFETY AUDIT

An independent and documented examination of activities, records, systems, programs, processes, procedures, resources and/or other elements of operations to verify an

operator's/provider's safety performance and validate the effectiveness of existing risk controls.

SAFETY CULTURE

The extent to which an organization actively seeks improvements, vigilantly remains aware of hazards, and utilizes systems and tools for continuous monitoring, analysis, and investigation; includes a shared commitment by personnel and management to personal safety responsibilities, confidence in the safety system, and a documented set of rules and policies. The ultimate responsibility for the establishment and adherence to sound safety practices rests with the management of the organization.

SAFETY DATA

A defined set of facts or safety values collected from various aviation-related sources, which is used to maintain or improve safety. Safety data is typically collected from proactive or reactive safety-related activities, such as:

- Accident or incident investigations
- Safety reporting
- Continuing airworthiness reporting
- Operational performance monitoring
- Inspections, audits, surveys
- Safety studies and reviews

SAFETY HARNESS

A seat harness consisting of a seat belt and shoulder straps that, when fastened, retains a person's torso secure in the seat. To provide greater upper body movement, the seat belt may be used independently with the shoulder straps unfastened.

SAFETY INFORMATION

Safety data that is processed, organized or analyzed in a given context so as to make it useful for safety management purposes. See Safety Data.

SAFETY MANAGEMENT SYSTEM (SMS)

A systematic approach to managing safety within an organization, including the necessary organizational structures, accountabilities, policies and procedures. As a minimum, an SMS:

a. Identifies safety hazards
b. Ensures remedial action necessary to maintain an acceptable level of safety is implemented
c. Provides for continuous monitoring and regular assessment of the safety level achieved
d. Aims to make continuous improvement to the overall level of safety

SAFETY (OPERATIONAL)

The state in which the possibility of harm to persons or damage to property is reduced to and maintained at or below an acceptable level through a continuing process of hazard identification and safety risk management. See Aircraft Operations.

Notes:

a. The term Safety used in the IOSA Standards Manual (ISM) and the ISSA Standards Manual (ISSM) refers to the management of safety and/or security risks that have the potential to affect aircraft operations.
b. The term Safety used in the ISAGO Standards Manual (GOSM) refers to the management of safety and/or security risks that have the potential to affect aircraft or ground operations.

SAFETY PERFORMANCE INDICATOR

A data-based safety parameter used for monitoring and assessing safety performance.

SAFETY PROMOTION

The component of an SMS that provides support for the processes associated with safety risk management and safety assurance and defines training and education as well as safety communication. See Safety Assurance, Safety Management System (SMS) and Safety Risk Management.

SAFETY RISK

The projected severity and likelihood of any adverse consequences or outcomes from or associated with an existing hazard. A projected outcome could be an accident, but an intermediate unsafe event or consequence might be identified as the most credible outcome. See Safety Risk Assessment (SRA).

SAFETY RISK ASSESSMENT (SRA)

A formal process used to determine safety risk by assessing the potential severity and likelihood of an adverse consequence or outcome resulting from an existing hazard. See Safety Risk and Safety Risk Management.

SAFETY RISK MANAGEMENT

The component of an SMS that includes the organization-wide implementation of hazard identification and safety risk assessment processes to ensure safety risks are mitigated or controlled to an acceptable level. See Safety Management System (SMS) and Safety Risk Assessment (SRA).

SAFETY RISK MITIGATION

The development and implementation of actions or measures designed to reduce a safety risk and maintain it at or below an acceptable level in accordance with an organization's safety risk tolerability.

Equivalent terms: See Safety Risk, Safety Risk Management and Safety Risk Tolerability.

SAFETY RISK PROBABILITY

The likelihood or frequency that a safety consequence or outcome might occur.

SAFETY RISK SEVERITY

The extent of harm or damage that might reasonably occur as a consequence or outcome of the identified hazard.

SAFETY RISK TOLERABILITY

The level of safety risk that is acceptable or unacceptable to an organization based on the risk acceptance criteria of that organization.

SHORT CONNECTION TRANSFER BAGGAGE

Baggage that has a short connection time and may need assistance to make the intended connection. Equivalent term: Hot Transfer Baggage.

SCHEDULED FLIGHT(S)

[This definition is used in AHM 850 SICA]. Means Carrier's flight(s) undertaken on Carrier's Aircraft that is integrated into the Carrier's scheduled operations which schedule is provided to Caterer in accordance with the time frames set forth in Annex B.

SCHEDULED SERVICES

[This definition is used in AHM 850 SICA]. Means the services set out in Sections 1 to 9 of Annex A that will be provided in respect of the Carrier's Scheduled Flights, or upon Carrier request, that may be provided in respect of extra flights at the same Location(s) or flights at locations other than the Locations.

SCREENING

The application of technical or other means intended and designed to identify and/or detect weapons, explosives or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference.

SEATING

The procedure whereby passengers obtain their seats–it may be free, allocated or selected.

SEATING CONDITION

The situation achieved after passengers are seated.

SECTION

A subdivision of a non-containerized/palletized compartment, i.e., net section.

SECTION—CABIN

A division of the cabin into zones for the purpose of balance.

SECTOR

The flight between two consecutive scheduled stops on any given flight.

SECURITY CONTROL

A means by which the introduction to airside and on board an aircraft of weapons, firearms, explosives or other dangerous/prohibited devices, articles or substances that could be utilized to commit an act of unlawful interference can be prevented.

SECURITY ITEMS

Items (e.g., weapons) that for security reasons must be removed from hand baggage and must be loaded in the aircraft hold. Must be labeled to notify handlers.

SERVICE LEVEL AGREEMENT (SLA)

A formal agreement, usually as part of a contract, between an operator and an external services provider, or in some cases, and internal services provider, that:

a. Specifies, in measurable terms, the services the external provider is expected to perform.
b. Becomes the basis for monitoring of the performance of the external services provider by the operator.

SERVICES

[This definition is used in AHM 850 SICA]. means the Scheduled Services, Special Services, Additional Services and the Administration & Supervision Services as defined herein.

SHALL

(Equivalent terms: must/necessary/need/required) Indicates that conformance is considered mandatory.

SHALL NOT

(Equivalent term: must not) Indicates that something is not allowed/permitted, or is forbidden.

SHIPMENT

See "Consignment".

SHOULD

(Equivalent terms: if possible/whenever possible) Indicates that conformance is considered optional, but desirable.

SPECIAL ASSISTANCE TEAM (SAT)

A team of suitably qualified and trained persons of the affected airline(s) or from other support organizations to provide assistance to survivors, family members and persons involved in an accident or aviation emergency. SAT is the more universal name; some airlines use company-specific names such as Care Team, Care Givers or Humanitarian Response Team (HRT).

SPECIAL LOAD

A load which requires special attention and treatment during the process of acceptance, storage, transportation, loading and unloading.

SPECIAL SHIPMENTS

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Includes, but not limited to, perishables, live animals, valuables, vulnerable cargo, news material and dangerous goods.

SPECIAL SERVICES

[This definition is used in AHM 850 SICA]. Means the services described in Section 10 of Annex A that will be provided on request of the Carrier from time to time during the Term at the Locations and which may be more particularly described in Annex(es) B.

SPECIALISED CARGO PRODUCTS

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Includes but not limited to, express cargo, courier shipments and same day delivery.

SPORTING EQUIPMENT

Any item of sports equipment that is not carried packed as normal baggage, such as skis, bicycles, etc.

SPREADER

Devices, usually boards, on which items of dead-load are placed to distribute the weight of the load over a greater area to ensure that maximum floor loading limitations are not exceeded.

STANDARD

A provision that specifies a system, policy, program, process, procedure, plan, set of measures, facility, component, type of equipment, or any other aspect of operations that is considered to be an operational necessity and with which conformity is required by an operator, as defined in the applicable IATA industry-developed audits, such as IOSA, ISSA or ISAGO.

STANDARD WEIGHT

See "WEIGHT—STANDARD (WEIGHTS)"

STAND EQUIPMENT HOLDING AREA

Designated area in close proximity or adjacent to, but outside of the ERA, containing operational equipment to be used for the next aircraft arrival, departure or turnaround.

STATE SAFETY PROGRAM (SSP)

An integrated set of regulations and activities established by a state aimed at managing civil aviation safety.

STATION

An airport where a Ground Handling Service Provider conducts ground operation for one or more Customer Airlines. Equivalent term: Airport

STATION MANAGEMENT

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means Management of Carriers' administrative and/or operational functions(s) within the scope defined in the Annex B.

STERILE AREA

That area between any passenger inspection or screening station and the aircraft, into which access is strictly controlled. Equivalent term: Security Restricted Area.

Note: In some states, sterile areas and security restricted areas are the same; in other states different levels of security exist.

SUBCONTRACTOR

[This definition is used in AHM 850 SICA]. Means a third party appointed by the Caterer to provide any of the Services to the Carrier on its behalf.

SUPPLIER

An organization that sells products and/or services for use by the air transport industry. The products/services may include maintenance, spare parts and information. Equivalent term: Vendor.

SUPPLIES—AIRPORT (Airport supplies)

All items intended to be sold, used or made available for any purpose or activity in the security restricted area of airports, other than items carried by persons other than passengers.

SUPPLIES—IN—FLIGHT

All items intended to be sold, used or made available for any purpose or activity on board during flight, other than items carried by persons other than passengers.

SUPERVISION

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. means to oversee and direct the performance of services provided to the Carrier at the location(s). The Carrier may contract the Handling Company itself or a third party to carry out this function. Supervision does not include the Handling Company's self-management of its own activities including those subcontracted.

SYSTEM

An automated method, including equipment and programs for performing functions like reservations, weight and balance, etc.

T

TASK

An activity accomplished when following a procedure.

TASK CARD

A document or other medium that specifies all maintenance or workshop tasks or actions approved by an Instrument of Appointment Authorized Person as part of the System of Maintenance. Task cards are computer or manually produced Sign-Off Sheets or Cards and include but are not limited to: Travelers; Tasks in Check Sheets; Survey Sheets; Maintenance Routines; Job Cards; Work Orders; Modification Cards; Scheduled Rectification Cards; Approved Repair Schemes; Operation Sheets. They may detail all requirements or may refer to Amplification details in a particular manual or document. They are used to issue technical instructions and require certification for the accomplishment of that task. Task Cards are either Permanent or Inspection tasks and may be produced in either base, workshop or line maintenance locations for inspections, modifications or component changes. Equivalent Terms: Job Card, Work Card

TAXIWAY

A defined (controlled) path on a land aerodrome established for aircraft taxiing.

TECHNICAL INSTRUCTIONS

The shortened name for the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284) approved and issued periodically in accordance with the procedure established by the ICAO Council.

TECHNICAL LANDING

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Is a landing for other than commercial reasons where no physical change of Loads, Passenger and/or crew occurs.

TELEPHONE ENQUIRY CENTER (TEC)

An emergency facility and its personnel responsible for handling telephone calls from the public requesting information about passengers and crew of a flight affected by an accident or incident. A TEC may be an outsourced service or run by the airline's dedicated call center.

TESTING AND EVALUATING

The process by which an instructor or evaluator determines how well a student's performance fulfils the course competencies. The process may include a demonstration of knowledge, proficiency and/or competency as appropriate. Evaluation can be done in a written test or practical form.

TICKET

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means the document issued by or on behalf of the Carrier as described by IATA PSC Resolution 722.

TIE-DOWN

Equivalent to "Restrain/Secure/Lash". A term used to describe the securing of load to fixed restraint points within an aircraft or in a ULD. See Lashing

TIE-DOWN EQUIPMENT

May comprise any or all of the following items which have been authorized for use: tie-down/lashing rings, straps, webbing, nets, ropes, cable and chains.

TIE-DOWN POINTS

Attachment points for the tie-down equipment to secure load on aircraft and/or ULDs.

TOP UP

Additional load that may be added because capacity is still available.

TRAFFIC

The activity of the transportation of passengers, baggage, cargo and mail.

TRAFFIC LOAD

Passengers, baggage, cargo, mail and equipment in compartments not included in dry operating weight of the aircraft.

TRAINER

means a competent person who officially delivers training to employees. On-the-job Trainer means a competent person who enables the delivery and aids in the development of theoretical knowledge and practical competence within the operational environment.

TRAINING–ASSESSMENT

means continuing periodic assessment of existing knowledge, skills and operational competence of personnel, during their day-to-day activities.

TRAINING EVALUATION

means a process used to review the overall effectiveness of a training program which may consider efficiency, pass rates, feedback from participants and other stakeholders.

TRAINING–INITIAL

means training provided to operational and other non-operational personnel prior to them being assigned to new duties.

TRAINING–MANDATORY

Defined as that which shall be delivered to meet the terminology that requires operational requirements of a company, including Regulatory training.

TRAINING–RECURRENT

means formal training to maintain current qualification, typically required by regulation or legislation e.g., DGR, Security, Safety, Safety Management System (SMS).

TRAINING–REGULATORY

Defined as that which shall be delivered to meet the regulatory and/or legislative requirements of national/international bodies external to a company.

TRAINING–RE-QUALIFICATION

means training provided to re-qualify an employee where the employee is identified as no longer meeting the required levels of performance.

TRAINING–UPDATE

means training provided to ensure operational personnel remain competent because of changes relevant to the operational duties.

TRANSFER

Traffic which arrives on a flight and continues on another flight of the same airline or another airline within a defined time limit.

TRANSIT

Traffic which arrives on a flight and continues on the same flight.

TRANSIT FLIGHT

An aircraft making a landing for commercial reasons where a partial change of loads, passenger and/or crew occurs. It should be noted that a change in the flight number of the same aircraft does not change the status of the flight.

TRANSIT STATION/AIRPORT

[This definition is used in AHM 810 SGHA]. A scheduled enroute stopping place on a flight.

TRANSIT TIME

[This definition is used in AHM 810 SGHA]. The time an aircraft remains in transit.

TRANSHIP

A direct aircraft to aircraft transfer of ULD and/or its load.

TRANSPORTATION DOCUMENTS

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means Ticket and Electronic Miscellaneous Document (EMD). The industry default for all ticketing processes is electronic.

TRANSPORTATION INDEX (TI)

Applicable to radioactive material only; a single number assigned to a package, overpack or freight container to provide control over radiation exposure.

TRAVEL DOCUMENT

Means a passport or other official document of identity issued by a State or organization, which may be used by the rightful holder for international travel, see ICAO Annex 9. [This definition is used in AHM 810 SGHA and in AHM 820 SGHSA].

TRUCK HANDLING

Loading and/or unloading a truck operating as a truck service.

TRUCK SERVICE

[This definition is used in AHM 810 SGHA and in AHM 820 SGHSA]. Means a service operated by truck on behalf of an airline carrying Load documented in accordance with the applicable IATA and/or ICAO rules, regulations and procedures. In the Main Agreement and in Annex A, the word "Aircraft" will read "Truck" and "Flight" will read "Truck Service" when it concerns the handling of a truck as meant under the above definitions.

TURNROUND FLIGHT

[This definition is used in AHM 810 SGHA AHM 820 SGHSA]. Means an aircraft terminating a flight and subsequently originating another flight following a complete change of Loads, Passenger and/or crew.

U

UNACCOMPANIED MINOR

A child, usually under twelve years of age, traveling without a parent or guardian.

UNDERLOAD

The difference between the allowed traffic load and the actual traffic load.

UNIT LOAD DEVICE (AIRCRAFT ULD)

A device for grouping and restraining cargo, mail and baggage for air transport. It is either an aircraft container or a combination of an aircraft pallet and an aircraft pallet net. Aircraft ULD is designed to be directly restrained by the aircraft Cargo Loading System (CLS). [This definition is also used in AHM 810 SGHA and AHM 820 SGHSA].

UNIVERSAL AIR TRAVEL PLAN (UATP)

The airline owned payment network accepted by merchants for air, rail, hotel and travel agency payments.

UNLOADING

Removing load from an aircraft.

UNSAFE ACTS

"Unsafe acts" can be categorized as errors and violations.

UNSERVICEABLE

The state of an aircraft, engine, component, or any piece of equipment as being in a condition that does not permit usage in operations. Equivalent term: Inoperative.

V

VERSION

The designator used to indicate the aircraft configuration together with the details of the equipment carried.

VIOLATION

A violation is a human action (behavior) that intentionally departs from the expected action (behavior). Knowingly breaking the rules is a violation, often with the best intentions. Workplace culture or norms can lead to violations (e.g., not asking safety questions during briefings).

W

WEAPON

An instrument or device that is capable of and intended for being used to inflict damage or harm to living beings, structures, or systems; normally prohibited from being carried on board an aircraft by a passenger.

WEIGHT

The term "weight" is used in place of the correct technical term "mass", in order to conform to standard industry terminology.

a. **BASIC WEIGHT** The "Basic Empty Weight" or "Fleet Empty Weight" and includes all fixed equipment, system fluids, unusable fuel and configuration equipment including galley structure.
b. **DRY OPERATING WEIGHT** The Basic weight of an aircraft plus "Operational Items", such as crew, crew baggage, flight equipment and pantry, as per company specification.
c. **LANDING WEIGHT** Calculated weight of an aircraft at landing. It is calculated by subtracting the trip fuel from the take-off weight.
d. **MAXIMUM LANDING WEIGHT** Maximum allowed weight of the aircraft at landing.
e. **MAXIMUM RAMP or TAXI WEIGHT** Maximum weight of an aircraft for ground maneuvers.
f. **MAXIMUM TAKE-OFF WEIGHT** Maximum allowed weight of the aircraft at take-off.
g. **MAXIMUM ZERO FUEL WEIGHT** Maximum allowed weight of the aircraft excluding fuel.
h. **MINIMUM WEIGHT** means the minimum weight at which an aircraft can be operated.
i. **NET WEIGHT** The difference between total weight and the tare weight.
j. **PANTRY WEIGHT** Weight of pantry and additional un-manifested catering material transported in the galley. Equivalent term: Catering Weight.
k. **STANDARD WEIGHT(S**) The statistically calculated weights approved by government authorities for weight and balance purposes for items of load regularly carried.
l. **TAKE-OFF WEIGHT** Calculated weight including dry operating weight, operating equipment, payload and take-off fuel of an aircraft at the start of take-off roll. It is calculated by adding Zero Fuel Weight and take-off fuel.
m. **TARE WEIGHT** The weight of an empty unit load device.
n. **ZERO FUEL WEIGHT** Actual weight of the fully equipped aircraft including crew, traffic load and, if applicable, ballast fuel.

WEIGHT AND BALANCE MANUAL (W&BM)

A manual published for each aircraft type by its manufacturer, which is approved by the airworthiness authority as part of the aircraft type's certification, and which defines the set of weight and balance limits not to be exceeded by the operator when loading the aircraft.

WING WALKER

A member of the ground crew whose primary job function is to walk alongside an aircraft's wing tip during aircraft ground movement (e.g., pushback, towing) to ensure the aircraft does not collide with any objects.

WORK AT HEIGHTS

Work at height means work in any place where, if precautions were not taken, a person could fall a distance liable to cause personal injury. You are working at height if you:

- work above ground/floor level
- could fall from an edge, through an opening or fragile surface
- could fall from ground level into an opening in a floor or a hole in the ground

Work at height does not include a slip or a trip on the level, as a fall from height has to involve a fall from one level to a lower level, nor does it include walking up and down a permanent staircase in a building. Defer to your local jurisdiction for details on when appropriate fall protection measures shall be implemented.

WORKPLACE SAFETY

Processes and procedures in place with an operator or services provider that protect people and aircraft from inadvertent injury or damage (i.e., safety of maintenance operations, environment, fire prevention or protection, identification of Safety-First Equipment, safety guarding of machinery, FOD protection, housekeeping and proper identification of maintenance vital greases and fluids). Equivalent term: Protection Systems.

X

X—RAY

An electromagnetic wave of high energy and very short wavelength, which is able to pass through many materials opaque to light.

8 ANNEX B: LIST OF ABBREVIATIONS

A

A/C – Aircraft
ACARS – Aircraft Communications Addressing and Reporting System
ACU – Air Conditioning Unit
ADL – Additions and Deletions List
AGM – Aircraft Ground Movement (ISAGO)
AHM – IATA Airport Handling Manual
AIRIMP – IATA Reservations Interline Procedures
AMM – Aircraft Maintenance Manual
AOC – Air Operator Certificate
AOG – Aircraft on Ground
AOXY – Airline-Supplied Oxygen (during a flight)
API – Advanced Passenger Information
APU – Auxiliary Power Unit
ASU – Air Start Unit
ATA – Actual Time of Arrival
ATC – Air Traffic Control
ATD – Actual Time of Departure
ATR – Automatic Tag Reader
AVIH – Animal Vivant in Hold (Live Animal in Hold)
AWB – Air Waybill

B

BAL – Balance
BI – Basic Index
BIG – Outsized cargo
BHS – Baggage Handling System
BLND – Blind passenger (specify if accompanied by seeing eye dog)
BRM – IATA Baggage Reference Manual
BRS – Baggage Reconciliation System
BW – Basic Weight

C

CAA – Civil Aviation Authority
CAO – Cargo Aircraft Only
CBBG – Cabin Seat Baggage
CCTV – Closed-Circuit Television
CFSS – Cargo Fire Suppression System
CG – Center of Gravity
CGO – Cargo Operations (IOSA)
CGM – Cargo and Mail Handling (ISAGO)
CLC – Centralized Load Control
CLS – Cargo Loading System/Cargo Loading Control panels
CMM – Component Maintenance Manual
COMAIL – Company Mail
COMAT – Company Material
CPM – Container Pallet Message
CUTE – Common Use Terminal Equipment

D

DAA – Delivery At Aircraft
DCS – Departure Control System
DEAF – Deaf passenger (specify if accompanied by service animal)

DEPA – Accompanied Deportee
DEPO – Deportee

DIP – Diplomatic Cargo
DG – Dangerous Goods
DGSL – Dangerous Goods and Special Loads
DGR – IATA Dangerous Goods Regulations
DIV – Aircraft Diversion Message
DLW – Dead Load Weight
DOI – Dry Operating Index
DOW – Dry Operating Weight
DPNA – Disabled passenger with intellectual or developmental disability needing assistance

E

EAT – Foodstuff
EBT – Electronic Baggage Tag or Electric Baggage Tug
EDP – Electronic Data Processing
EFB – Electronic Flight Bag
EIC – Equipment in Compartment
ERA – Equipment Restraint Area
ERP – Emergency Response Plan
ESAN – Emotional Support Animal (passenger with emotional support animal in cabin)
ETA – Estimated/Expected Time of Arrival
ETL – Electronic Ticket List
EZFW – Estimated Zero Fuel Weight

F

FIDS – Flight Information Display System
FIM – Flight Interruption Manifest
FPU – Fixed Power Unit
FREMEC – Frequent Traveler's Medical Card
FOD – Foreign Object Debris
FSZ – Fueling Safety Zone

G

GADM – Global Aviation Data Management
GHSP – Ground Handling Services Provider
GMC – Ground Movement Control
GOG – Ground Operations Group (IATA ground operations advisory body)
GOM – Ground Operations Manual
GOS – Ground Operations Standards (IATA ground opertions working group)
GOSARP – ISAGO Standards and Recommended Practices
GOSM – ISAGO Standards Manual
GPS – Global Positioning System

GPU – Ground Power Unit
GSE – Ground Support Equipment

H

HEA – Heavy item/load (over 150 kg)
HEPA – High-Efficiency Particulate Air (HEPA) filters
HOTAC – Hotel Accommodation
HPBT – Home-Printed Baggage Tag
HUM – Human Remains

I

IATA – International Air Transport Association
INAD – Inadmissible Passengers
ICAO – International Civil Aviation Organization
ICAO CART – The International Civil Aviation Organization (ICAO) Council Aviation Recovery Taskforce
ICHM – IATA Cargo Handling Manual
IDQP – IATA Drinking-water Quality Pool
IDX – IATA Incident Data Exchange
IFE – In-Flight Entertainment
IFQP – IATA Fuel Quality Pool
IGOM – IATA Ground Operations Manual
INAD – Inadmissible Passenger
IOSA – IATA Operational Safety Audit
IoT – Internet of Things
IPA – Isopropyl Alcohol solution
IPM – IOSA Program Manual
IRM – IATA Reference Manual for Audit
ISAGO – IATA Safety Audit for Ground Operations
ISARPs – IOSA Standards and Recommended Practices
ISM – IOSA Standards Manual
ISO – International Organization for Standardization

ISSA – IATA Standard Safety Assessment

J

K

KG – Kilogram(s)

KPI – Key Performance Indicator(s)

L

LAR – IATA Live Animal Regulations

LAW – Landing Weight

LDM – Load Message or Load Departure Message

LEGB – Legs in cast—for passengers with both legs in a full cast, (only to be used in conjunction with SSR code MEDA).

LEGL – Leg in cast—for passengers with a left leg in a full cast or fused knee, (only to be used in conjunction with SSR code MEDA).

LEGR – Leg in cast—for passengers with a right leg in a full cast or fused knee, (only to be used in conjunction with SSR code MEDA).

LEP – List of Effective Pages

LI – Lithium-Ion

LIR – Loading Instruction Report

LMC – Last Minute Changes

LOD – Load Control (ISAGO)

M

MAC – Mean Aerodynamic Chord

MAAS – Meet and Assist

MCT – Minimum Connecting Time

MEDA – Passenger Requiring Medical Assistance (airline medical clearance may be required)

MEDIF – IATA Medical Information Form

MLG – Main Landing Gear

MLW – Maximum Landing Weight
MRZ – Machine Readable Zone
MTOW – Maximum Takeoff Weight
MVT – Aircraft Movement Message
MZFW – Maximum Zero Fuel Weight

N

NAA – National Aviation Authority
NLG – Nose Landing Gear
NOTOC – Notification to Captain/Pilot-in-Command

O

ODLN – ULD Operational Damage Limits Notice
OEM – Original Equipment Manufacturer
OIR – Offloading Instruction Report
OOG – Out-of-Gauge (oversized baggage)
OPC – IATA Operations Committee – now known as Safety, Flight and Ground Operations Advisory Council (SFGOAC)

P

PAB – Passenger and Baggage Handling (ISAGO)
PBB – Passenger Boarding Bridge
PC – Piece Concept
PCA – Preconditioned Air
PCR – IATA Perishable Cargo Regulations
PDU – Power Drive Unit
PED – Portable/Personal Electronic Device
PETC – Pet in Cabin
PIC – Pilot-in-Command
PIL – Passenger Information List
PNL – Passenger Name List
PNR – Passenger Name Record

POC – Portable Oxygen Concentrator
PPE – Personal Protective Equipment
PPM – Passenger Protection Message or Policy and Procedure Manual
PPU – Powered Push Unit
PRM – Passenger with Reduced Mobility
PSCM – IATA Passenger Standards Conference Manual
PSM – Passenger Service Message
PTL – Passenger Transfer List
PTM – Passenger Transfer Message

PTS – Precision Time Schedule
PWD – Passenger With Disabilities

Q

QA – Quality Assurance
QC – Quality Control

R

RCA – Root Cause Analysis

S

SAG – Safety Action Group
SARP – Standards and Recommended Practices
SDS – Safety Data Sheet
SeMS – IATA Security Management System Manual
SFGOAC – IATA Safety, Flight and Ground Operations Advisory Council (formerly the IATA Operations Committee)
SGHA – Standard Ground Handling Agreement
SI – Supplementary Information
SLA – Service Level Agreement
SLS – Statistical Load Summary
SME – Subject Matter Expert

SMS – Safety Management System
SOM – Seats Occupied Message
SOP – Standard Operating Procedure
SP – Special Meal
SRA – Safety Risk Assessment
SRB – Safety Review Board
SSP – State Safety Program
SSR – Special Service Request
STCR – Stretcher Passenger
SVAN – Service animal (passenger with service animal in cabin)

T

TACT – IATA Air Cargo Tariff and Rules
TCR – IATA Temperature Control Regulations
TI – Transportation Index
TIM – Travel Information Manual
TIMATIC – Travel Information Manual Automatic
TG – Technical Group
TM – Training Manual
TOR – Terms Of Reference
TOW – Takeoff Weight
TR – Temporary Revision
TWL – Towbarless Tractor
TWT – Towbar Tractor

U

UCM – ULD Control Message
ULD – Unit Load Device
ULDR – IATA Unit Load Devices Regulations
UM – Unaccompanied Minor
UPU – Universal Postal Union
UTM – IATA Unit Load Devices Technical Manual

V

VAL – Valuable Cargo
VHF – Very High Frequency

W

WCBD – Wheelchair (non-spillable battery)
WCBW – Wheelchair (wet cell battery)
WCH – Wheelchair
WCHC – Wheelchair (C for Cabin Seat)
WCHR – Wheelchair (R for Ramp)
WCHS – Wheelchair (S for Steps)
WCLB – Wheelchair—Lithium ion battery
WCMP – Wheelchair (manual power)
W&B – Weight and Balance
WHO – World Health Organization

X

Y

Z

ZFW – Zero Fuel Weigh

9 ANNEX C: ICAO PHONETIC ALPHABET AND NUMBERING SYSTEM

ICAO Phonetic Alphabet and Numbers

Alphabet

A	Alfa
B	Bravo
C	Charlie
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliet
K	Kilo
L	Lima
M	Mike
N	November
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Whiskey
X	X-ray
Y	Yankee
Z	Zulu

Numbers - (Pronunciation)

0	ZE-RO

1	WUN
2	TOO
3	TREE
4	FOW er
5	FIFE
6	SIX
7	SEV en
8	Ait
9	NIN er

Decimal	DAY SEE MAL
Hundred	HUN DRED
Thousand	THOU SAND

Note: Numbers shall be reported as single figures