IATA Ground Operations Manual (IGOM)
Supplement to Airport Handling Manual
IGOM Effective 1 January—31 December 2015

4th Edition
NOTICE

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Introduction

1 Purpose and Scope
The IATA Ground Operations Manual (IGOM) defines ground handling standards for airlines and ground service providers to ensure ground operations activities are safely, efficiently, and consistently accomplished. Procedures reflect the minimum standards as identified by the aviation industry.

2 Applicability
The IGOM is to be used by operators and ground service providers as a core set of ground operations procedures in the conduct of ground handling functions. It also applies to staff entering the aircraft for purposes such as catering, cleaning or supervision, but specifically excludes aircraft maintenance, fuelling or de-icing tasks. While all relevant factors have been taken into consideration and these procedures constitute best practice, some additional information may be required:
(a) Any supplementary airline specific instructions which are required, especially pertaining to aircraft, GSE or the airline’s product offering, shall be presented in the airline’s GOM;
(b) In the event an airline has to deviate from the published IGOM procedure, then this must be shown in the airline’s GOM.
(c) If a regulatory authority mandates procedures other than those in IGOM, then these shall be filed according the paragraph 12 below.

3 System of Numbering IGOM
The IGOM is organized as follows:
(a) Introduction
(b) Chapter 1: Passenger Handling Procedures
(c) Chapter 2: Baggage Handling Procedures
(d) Chapter 3: Cargo/Mail Handling Procedures
(e) Chapter 4: Aircraft Handling Procedures
(f) Chapter 5: Load Control
(g) Chapter 6: Airside Supervision and Safety

4 Manual Revisions
IATA publishes annual editions of this manual to ensure the content remains current. The edition is depicted on the cover page of the manual and at the bottom of each individual page. The issue date and effective date of each edition is indicated in the record of revisions section.
A temporary revision (TR) may be issued in order to meet urgent needs. A TR is not included in the body of the IGOM, and is accompanied by specific instructions as to applicability.

4.1 Manual Revision Symbols
☐ addition of a new item
△ change to an item
☒ cancellation of an item

4.2 Risk Assessment of Changes
In the development of IGOM, the IATA Airport Handling Manual (AHM) was used extensively as a reference source for practices and procedures. It is recognized that initially there will be some differences between some of the content of IGOM and the AHM. Where such differences exist, it is recommended that precedence be given to the IGOM for procedural matters, and to the AHM for policy and technical specifications. In view of the above:
(a) the procedures detailed in the IGOM are deemed to be at an acceptable level of risk
(b) New procedures to be introduced in the IGOM shall undergo a proven risk assessment process in line with AHM 621 and ICAO’s risk matrix as a minimum. All proposals for changes to the IGOM shall be submitted with a risk assessment for approval by the IGOM taskforce
(c) Airlines, Ground Service Providers or any Operators using IGOM procedures may choose to use a risk matrix aligned with the company’s risk policy, as a minimum ICAO’s.
5 Manual Language
This manual is written in International English in accordance with IATA policy.

6 Wording Conventions

6.1 General
(a) May/need not/not necessary/not required: indicates that compliance is optional.
(b) Note: indicates an important point about which the manual user needs to be made aware.
(c) Should/if possible/whenever possible: indicates that compliance is considered optional, but desirable.
(d) Shall/must/necessary/need/required: indicates that compliance is considered mandatory.
(e) Shall not/must not/may not: indicates that something is not allowed/permitted, or is forbidden.

6.2 Quotations
Quotations are used within this manual to designate the following:
(a) the exact verbiage to be spoken during oral communication;
(b) the exact verbiage to be written into forms;

6.3 Italics
Italics are used within this manual to designate the following:
(a) the titles of manuals or documents;
(b) foreign words that have not been assimilated into International English;
(c) the writer's emphasis on certain words;
(d) notes.

7 Standard Format

7.1 Actions
All listed item are represented with the following sequence:
(a) Item
(b) Item
   1. Sub item
   2. Sub item
      (i) Sub Sub item
      (ii) Sub Sub item

7.2 Caution and Danger
These are presented in separate boxes as follows:

Caution: Representing a general caution.

Danger: Representing a personal danger for the person.
8 References
Within the IGOM, reference may be made to any of the following manuals published by IATA:
(a) The IATA Airport Handling Manual (AHM)
(b) The IATA Dangerous Goods Regulations (DGR)
(c) The IATA Live Animals Regulations (LAR)
(d) The IATA Passenger Service Conference Resolution Manual (PSCRM)
(e) The IATA Perishable Cargo Regulations (PCR)
(f) The IATA Reference Manual for Audit Programs (IRM)
(g) The IATA Security Manual (SecM)
(h) The IATA Travel Information Manual (TIM)
(i) The IATA Travel Information Manual database (TIMATIC)
(j) The IATA ULD Regulation (ULDR)

9 Disclaimer
Every effort has been made to reference the best sources possible and the IGOM task force is comprised of knowledgeable experts from the ground handling and aviation industry. However, in a manual that is globally applicable, it is possible that there are procedures or instructions in the IGOM that do not align with certain local practices, or situations. In such cases, common sense and safety shall prevail.

10 Acknowledgements
IATA would like to thank the members of the IGOM Task Force for the vital role they have played in the development of IGOM, as well as other individuals and groups who have taken the time and made the effort to provide us with comment and feedback.

11 Feedback
While every effort has been made to ensure that IGOM reflects a globally applicable industry best practice, we welcome feedback and constructive criticism. This manual will undergo review and updating through the IGOM Task Force.
To submit any feedback, it is essential to provide the following details for your feedback to be considered:
(a) First Name
(b) Last Name
(c) Name of Company
(d) Position/Title
(e) E-mail address
(f) Business hours telephone number
Feedback is to be provided in the online form.
Reference must be made to the applicable chapter and section numbers, providing as much detail as possible.
Any IATA Airport Handling Manual and IGOM changes are to be provided to IATA via our Change Request form at: www.iata.org/ahmigom-change

12 Variations
12.1 Definition
A variation is the term used for a requirement to deviate from a procedure that has been published in the IGOM due to requirements that have been mandated by the relevant aviation authorities. Such authorities can be National Aviation Authorities/Regulators and/or Airport Authorities. The focus of any variation shall always be on improving safety.

12.2 General
IGOM includes only those variations which were submitted to IATA and each Operator and Ground Service Provider is advised to check the applicable laws and regulations within a State or at an Airport of operations.
12.3 Submission Process
Any of the entities listed below are entitled to submit a variation to IATA:
(a) Operator
(b) Ground Service Providers
(c) National Aviation Authorities/Regulators
(d) Airport Authorities
The submission process is as follows:
(a) Variations shall be submitted via the online IGOM Variation Request form available at:
www.iata.org/igom-variation;
(b) Complete the mandatory fields of the variation request form;
(c) The following information must be provided:
1. Identify the IGOM procedure using chapter and section numbers
2. Outline the difference(s) between the published procedure and the regulation
3. Provide the Law/regulation reference - title, chapter, provision etc. including the text of the relevant law/regulation
4. Provide the State/Airport requirement that is to be listed in IGOM
5. State the validity period. Specify if the procedure is temporary or permanent. State the ‘effective from’ date and, if temporary, the ‘effective to’ date
6. Add any extra clarification or reference to regulations, as required.
(d) Submit the form online
(e) Each submission will be reviewed by IGOM Task Force during the task force meetings.

12.4 Acceptance
If the variation request meets all the above criteria it will be accepted and published in the IGOM Annex A

12.5 Rejection
A variation will be rejected if:
(a) The process is not complied with or the criteria above are not met;
(b) The submitting entity will be notified and provided with a reason for the rejection.

12.6 Validity
A variation can be permanent or temporary.
Each variation must be submitted with a specific validity period, comprising of an effective date and an expiry date, which will be included in Annex A.
The following are possible reasons for temporary variations:
(a) Seasonal climate changes;
(b) Construction;
All temporary variations will be automatically marked in Annex A as “not used” in the next IGOM Edition after the expiry date is reached. The “not used” entry will remain in the IGOM for one year, after which it will be automatically deleted from Annex A.

12.7 Renewal
The renewal process is identical to the submission process. The responsibility for renewing the variation lies with the submitting entity. The submitting entity shall also advise IATA if any subsequent change to the IGOM renders the variation obsolete.

12.8 Publication and Format
Each variation will be given a unique identifier consisting of a code according to:
(a) National Aviation Authorities/Regulators (State ISO codes)
(b) Airport Authorities (3 letter IATA codes)
and a number. The numbering shall be sequential and follows the same logic as used in the IATA Dangerous Goods Regulations (DGR). For example: "CHG-01 All variations will be published in Annex A of the IGOM. Annex A will also be available without restrictions on:
http://www.iata.org/whatwedo/ops-infra/Pages/ground-handling.aspx

13 IGOM References
For ease of referencing it is recommended to add IGOM references to airline GOMs.
Chapter 1: Passenger Handling Procedures

1.1 Passenger Departure

1.1.1 Pre-Departure Activities

1.1.1.1 Ticket Sales Counter
(a) Display operating airline required signage, both electronic and manual versions
(b) Ensure Dangerous Goods notifications are prominently displayed.

1.1.1.2 Passenger Pre-Flight Preparation
Prepare check-in for flights in accordance with operating airline policy prior to the opening of web or airport check-in, and to verify all necessary data has been transferred into the check-in system correctly.
(a) Review the booking status.
(b) 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.
(c) Review the curtain version (if applicable).
(d) Confirm the Passenger Name List (PNL) and Additions and Deletions List (ADL) were properly transmitted and match the booking status.
(e) Block seats for security officers, crew, weight and balance, and if seats are unserviceable.
(f) Confirm the seating plan is set according to the actual aircraft type and version.
(g) Review the flight remarks, if applicable.
(h) Record passenger status on PNR, if applicable.
(i) Review the boarding time, departure time, and gate. Brief staff about the reason for any delays.
(j) Apply payload restrictions, if any.
(k) Check the passenger list for special passengers (e.g. WCH, UM, etc.) and pre-assign as per operating airline policy and according to the aircraft type.
(l) If not pre-reserved, prepare seating for families traveling with infants or children, as per operating airline policy.
(m) Where free/open seating is applied, inform the crew and passengers and ensure special category passengers have appropriate seats.
(n) Ensure flight status is open for web check-in if applicable.
(o) Check-in is opened once the pre-flight preparation is complete.

1.1.2 Check-In Counter Requirements
Prior to opening the check-in counters:
(a) Start and test equipment.
(b) Ensure scales are functioning.
(c) Stock boarding card and bag tag printers as per operating airline requirements.
(d) Ensure adequate stock of any other operating airline required tags.
(e) Display operating airline required signage, both electronic and manual versions.
(f) Ensure Dangerous Goods notifications are prominently displayed at the check-in area as well as ticket offices, baggage drop-off areas, self serve check-in areas, and transfer counters.
(g) Prepare check-in queues, stanchions, carpets, baggage sizers, podiums etc., as per operating airline specifications.

1.1.3 Passenger Check-In

1.1.3.1 Check-In Deadlines
Apply check-in deadlines as per operating airline policy, respecting applicable passenger rights and on-time departure requirements.

1.1.3.2 Operating Carrier, Marketing Carrier and Wet Lease
Advise the passenger of the operating carrier no later than the time of check-in, if different than the one noted as the "carrier" on the ticket.
1.1.3.3 Check-In Types
Check-in may be provided at check-in counters, via self service methods such as web check-in, kiosk or SMS, and may be performed using a departure control system (DCS) or manually.

1.1.3.4 Manual Check-In
Where no DCS is available or in case of DCS failure, apply established manual check-in procedures. Local back-up procedures must be established in every station and tested regularly, and include provisions for the collection and transmission of API data as required.

1.1.3.5 Through Check-In
Perform through check-in whenever possible and as per the interline agreement. Travel documents must be checked for all through-checked parts of the journey.
If an airport change is involved, through check-in is permitted; however, through baggage tagging is not permitted.

1.1.3.6 Return Check-In
For return check-in to be permitted:
(a) the return journey must be within 24 hours after departure;
(b) no checked baggage is permitted;
(c) no change of cities is involved;
(d) operating airline approval is required.

1.1.3.7 Self-Service Check-In
Online/web check-in may be offered if the following conditions are met:
(a) The passenger is holding an electronic ticket.
(b) The passenger is departing from an airport where the operating airline's or ground handler's DCS is in use.
(c) The passenger meets any other qualifying criteria set by the operating airline.

1.1.3.8 Mobile Check-In
Mobile check-in may be offered if the following conditions are met:
(a) The passenger holds an electronic ticket.
(b) The passenger is departing from an airport where the operating airline's or ground handler's DCS is in use.
(c) The passenger meets any other qualifying criteria set by the operating airline.

1.1.3.9 SMS Check-In
SMS check-in is applicable provided the following conditions are met:
(a) The passenger has registered for SMS check-in.
(b) The passenger holds an electronic ticket.
(c) The passenger is departing from an airport where issuance of a mobile boarding card is applicable.

1.1.3.10 Check-In Opening
Conduct a staff briefing for check-in agents before the check-in counters are opened and receive and review any summarized flight information.

1.1.4 Baggage Drop-Off
Passengers who have used a self-service check-in facility may drop their checked baggage at a baggage drop-off.
(a) Review the boarding pass and pull up the passenger data in the check-in system.
(b) Verify identity and travel document, assess carry-on baggage, and accept checked baggage.
(c) Add baggage information and any SSR's to the DCS if required and apply any related fees as per operating airline policy.

1.1.5 Travel Documents and Verification
(a) Check the validity of the ticket with regard to the itinerary, flight, date, carrier, reservation status, class, and restrictions.
(b) Check the ticket for the final destination and confirm this with the passenger.
(c) Verify the passenger's identity against the travel document presented, including review of date of birth, expiry status of document, a visual comparison of the photo to the passenger, and ensure the name on the travel document matches the booked name.
(d) Verify the travel document is valid and good for all persons traveling, as not all States allow family members to be registered in a single passport.
(e) Report any document that shows signs of tampering.
(f) Locate the passenger in the DCS and review any special remarks.
(g) Check travel documents for destination and/or transit requirements.
(h) Review Visa or entry conditions or limitations if required.
(i) Collect Advanced Passenger Information (API) if required.
(j) When you identify an issue with a document, notify your supervisor who will contact the appropriate authority for assistance.

1.1.5.1 Advance Passenger Information
Many governments require airlines to submit advanced passenger electronic data (API) at specified times for disembarking passengers.
Information is generally collected at the time of check-in, or provided from data collected during booking, and verified during presentation of the travel document.
As per operating airline instructions, collect API data at the time of check-in, or review data already provided.
Transmit API data at pre-arranged times to recipients specified by the airline. Always protect passenger's personal information and securely dispose of any related paperwork not kept on file.

1.1.6 Passenger Acceptance
1.1.6.1 Requirements for Passenger Acceptance
Certain categories of passengers may be refused travel at the operating airline's discretion. Apply the operating airline policies with respect to acceptance.

1.1.6.2 Seating
Each passenger (except infants not occupying a separate seat) is assigned an individual seat number per flight. Certain airlines operate a free/open seating policy.
(a) Allocate seating for special categories of passengers in accordance with operating airline policy.
(b) The acceptance of passengers on the waitlist is based on booking status and operating airline directives.

1.1.6.3 Exit Row Seating
Passengers occupying emergency exit row seating must be able-bodied, and therefore excludes INF, UMN, MED, etc.
Occupancy of emergency exit rows is restricted in accordance with operating airline policy and host state requirements.

1.1.7 Passenger Boarding
(a) Check that boarding facilities and gate monitors are displaying flight information.
(b) Ensure Dangerous Goods and Prohibited Articles notices are displayed at the boarding gate.
(c) If walking on apron, ensure the route to the aircraft is safe and clearly marked for both passengers and staff.
(d) For jetbridge boarding, secure and mark off the route to the aircraft.
(e) Obtain clearance for boarding from the flight crew and according to local procedures and operating airline policy.
(f) Follow safety requirements for fuelling in progress as per operating airline GOM.
(g) Make boarding announcements as per operating airline standards.
(h) Follow policies for passengers requiring assistance or pre-boarding.
(i) Verify each passenger's identity as per the requirements.
(j) Check the name on the passenger's boarding identity document with the one on the ticket, and visually match passenger with photograph.
(k) Confirm each passenger's boarding acceptance in the DCS before allowing them to board.
(l) For manual or non automated boarding, check the flight number and date on the boarding card.
(m) Apply cabin baggage policies of the operating airline, and account for any gate tagged items.
(n) Secure the flight by matching the checked-in passengers to the boarded passengers.
(o) Provide final passenger numbers to cabin crew.
(p) Provide required flight documents to cabin crew.
(q) Send required post flight messages upon flight close out.
1.1.7.1 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 and documents if they are located on the aircraft.
(b) Apply operating airline procedures and government regulations with respect to the removal of checked baggage of passengers who check-in but fail to board.
(c) Notify crew and load controller of any last minute changes to passenger and/or baggage load.

1.1.7.2 Boarding in Case of DCS Breakdown
Where no DCS is available or in case of DCS failure, apply manual boarding procedures. Ensure the final checked-in count matches the boarded passenger count prior to door closure and prepare and board a final manifest.

1.1.8 Flight Documents
Provide the flight crew with the required documents according to the operating airline specifications.

1.1.8.1 Passenger Information List (PIL)
The Passenger Information List (PIL) provides information to the cabin crew about passengers on board, (name, seat number, special service requirements).
(a) Provide a PIL to the senior cabin crew member before departure.

1.1.8.2 Other Flight Documents
Other required documents may include:
(a) final manifest;
(b) bag tag list for double destination flights;
(c) general declarations if required;
(d) other special information (i.e. INAD documents, etc.).

1.1.9 Post Flight Departure Activities

1.1.9.1 Messages
Ensure all relevant messages are dispatched to the appropriate addresses, as per the operating airline specifications. 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) Advance Passenger Information (API)
(h) Electronic Ticket List (ETL)

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

1.2 Passenger Security

1.2.1 Security of Documents

1.2.1.1 Boarding Passes, Transit Cards and Baggage Tags
All materials used for passenger and hold baggage processing (e.g. boarding cards, baggage tags, FIMs, vouchers, stamps) must be protected or be under surveillance at all times in order to prevent unauthorized access and use.
1.2.1.2 Disposal of Printed Documents
Printed material such as boarding passes, passenger lists, and handling forms may have to be reprinted and are therefore left behind as waste. Dispose of these documents according to data protection rules, as they contain passenger data.

1.2.1.3 Information Security
Departure control systems (check-in systems) must be controlled to prevent unauthorized access.
(a) Follow airport procedures intended to prevent unauthorized use and access to un-issued (blank) boarding passes.
(b) Before leaving the counter, remove boarding cards and baggage tags from the respective printers or lock them.
(c) Before leaving the counter, sign-out, log-off and lock the system.
(d) Observe regulations concerning the usage of sign-ins and passwords.

1.2.1.4 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 have to walk on the apron to aircraft, ensure passengers proceed directly to the aircraft.
(d) If transportation has to 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.

1.2 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 contagious diseases, medical conditions, intoxication, etc. Further questioning may be required to assist with passenger assessment.
(a) When you identify a potential problem passenger, notify your supervisor.
(b) The supervisor will contact the appropriate local authority for assistance.

1.3 Passenger Arrival, Transfer and Transit

1.3.1 Pre-Arrival
Review the pre-arrival information from DCS and/or messages.
(a) Prepare for short connections if applicable.
(b) Arrange facilitation for passengers requiring assistance, e.g. UMNR, PRMs.
(c) Check requirements for any gate delivery mobility aids.
(d) In case of delay of arrival, check onward connections and make new reservations if required and as per operating airline policy.

1.3.2 Arrival
(a) Prepare jetbridge, ensuring it is free of debris and position as per the standard height for the aircraft type.
(b) Secure the disembarkation route for passengers.
(c) Disembark passengers in accordance with operating airline policy.
(d) Provide assistance to passengers requiring it. Communicate any delays in providing assistance services.

1.3.3 Transfer

1.3.3.1 Passenger Handling at Connecting Airport
If applicable, and as per operating airline policy:
(a) Check the inbound/outbound connections and the number of passengers affected.
(b) Check time-critical connections, and inform gate staff of onward transfer.
(c) Prepare for handling of passengers requiring assistance.
(d) Meet the transferring passengers upon arrival of the incoming aircraft.
(e) Direct passengers:
   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
Transit passengers may be allowed to disembark when scheduled ground time and local circumstances and facilities permit, in accordance with operating airline policy.
Certain categories of passenger should be escorted during the transit time.
Local government requirements must be applied regarding security of transit passengers up to and including screening requirements.

1.3.4.1 Disembarkation of Transit Passengers

1.3.4.1.1 Disembarkation Procedure
(a) Provide each passenger with a transit boarding pass or instruct passengers to retain their original boarding pass.
(b) Inform passengers about boarding time and gate and available facilities.
(c) Transit passengers must be re-secured when re-boarding the flight. (i.e. travel document checked, boarding status verified, transit card collected)

1.3.4.1.2 Some Transit Passengers Remain on Board
As per operating airline policy, there may be categories of passengers that stay on board if locally permitted.

1.3.4.2 Boarding Transit Passengers

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

1.3.4.2.2 Missing Transit Passengers
The flight must be re-secured before door closure. If passengers are missing, apply the procedure for missing passengers.

1.3.4.3 Programmed Aircraft Change En Route
(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) and inform passengers about boarding time and gate and available facilities.
(c) Provide passenger assistance as required.
(d) In case of a change of configuration, assign passengers new seat numbers if applicable, or apply free/open seating.

1.4 Special Categories of Passengers

1.4.1 Minors Travelling Alone

1.4.1.1 Unaccompanied Minors (UMNR)

1.4.1.1.1 Seating
Seat UMNRs as per operating airline policy and do not assign seats in emergency exit rows.

1.4.1.1.2 Connection Acceptance Restrictions
Observe operating airline policy if any.

1.4.1.1.3 Procedures for Handling Unaccompanied Minors
(a) Complete the handling advice/declaration form ensuring the responsible adult has signed 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 handling fee where applicable.
(e) Inform the responsible adult to remain at the airport until the aircraft is airborne.
(f) UMNR must not be unsupervised until handed over to the cabin Crew.
(g) Advise/release responsible adult once flight is airborne.
1.4.1.1.4 Transfer Station Procedure
(a) Meet, assist UMNR and collect any travel documents from the cabin crew.
(b) Hand over the UMNR to the cabin crew of the connecting flight.
(c) In case of interline transfer, hand over UMNR to the onward connecting airline agent.
(d) If flight is cancelled at transfer station, UMNR to be accompanied at all times.

1.4.1.1.5 Arrival Station Procedure
(a) Meet, assist UMNR 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 UMNR is collected.
(d) Hand over the UMNR only to the designated adult noted on the handling advice after verifying the identity of this person and having received his signature for receipt of the UMNR.

1.4.2 Infants and Children
1.4.2.1 Infants
An infant is a minor that has not yet reached his/her 2nd birthday.

1.4.2.1.1 Seating
The maximum number of infants allowed per aircraft is limited by the number of supplemental oxygen masks available on the aircraft.
Infants are considered children and must be assigned a seat when, during the journey, they reach the age of 2.
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 policy.

1.4.2.1.2 Aircraft Baby Bassinets
If the aircraft is equipped with baby bassinets, apply operating airline policy for assignment, respecting any age and weight limitations.

1.4.2.1.3 Baby Strollers
Apply operating airline procedures for the acceptance and use of car seats and other restraint devices. Verify their conformity as per the airline specifications.
(a) Make sure the child restraint device is placed on a seat which will not hinder the evacuation of any passenger.
(b) Do not assign a seat for the child restraint device in an emergency exit row, or the row forward or rear of an emergency exit row.
(c) Respect any operating airline specific limitations, as not all seats may be suitable.

1.4.2.2 Children
A child is a minor between 2 and 12 years of age, having reached his/her 2nd birthday but not his/her 12th birthday.

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

1.4.2.2.2 Child Restraint Device
Apply operating airline procedures for the acceptance and use of car seats and other restraint devices. Verify their conformity as per the airline specifications.
(a) Make sure the child restraint device is placed on a seat which will not hinder the evacuation of any passenger.
(b) Do not assign a seat for the child restraint device in an emergency exit row, or the row forward or rear of an emergency exit row.
(c) Respect any operating airline specific limitations, as not all seats may be suitable.

1.4.3 Groups
1.4.3.1 General
A group is defined as a party of at least 09 passengers (not including infants), travelling together.
1.4.3.2 Check-In
(a) Check-in and accept all passengers individually.
(b) Assign seats together, if requested, respecting any special seating requirements.
(c) Issue baggage tags individually.
   1. Each piece of baggage must bear the respective passenger’s identification
   2. Exception: Bag tags for family members travelling together may be issued on one family name.

1.4.3.3 Non Standard Groups
(a) Unusual groups, excessive weights, or anything outside the standard need to be communicated to load control (i.e. sports teams with higher passenger weights).

1.4.4 Passengers Requiring Assistance
For passengers with disabilities and those requiring or requesting assistance;
(a) Ask the passenger what assistance they require and how you can help them.
(b) Discuss the most appropriate seating based on their individual needs and the aircraft specifications, even if seats have already been pre-assigned.
(c) Advise passengers what services and assistance are available based on their needs.
(d) Advise the passenger of operating airline equipment such as on board wheelchairs, Braille or tactile markings, accessible lavatories.
(e) Provide information to passengers in alternate formats upon request.
(f) Ensure accurate SSR codes and any other relevant information are recorded in the DCS.

1.4.4.1 Passengers with Reduced Mobility
1.4.4.1.1 Identifying Passengers with Reduced Mobility
Appropriately code specific wheelchair requirements based on the passengers specific needs.—WCHC, WCHR, WCHS

1.4.4.2 Passengers with Visual or Hearing Impairments
Provide passengers who identify themselves as persons having a visual or hearing impairment with access to the same information provided to other passengers. Ensure accurate SSR codes and any other relevant information are recorded in the DCS.

1.4.5 Passenger Requiring Medical Clearance
As per the operating airline policy, medical clearance may be required by passengers who appear to have a communicable disease or condition that could pose a direct threat to the health and safety of others on the flight.
(a) Persons whose medical condition gives reasonable doubt that the individual can complete the flight safely without requiring extraordinary assistance during flight, e.g. persons with acute medical conditions as recent heart attack, stroke, embolism, persons with recent surgery.
(b) Persons requesting medical treatment during flight, e.g. needing extra oxygen or other medical treatment like infusions.

1.4.5.1 IATA Medical Information Form (MEDIF)
The MEDIF is a standard form used to assess passengers requiring assistance. Examples are:
(a) Attachment A (Information sheet for passengers requiring special assistance) and;
(b) Attachment B (Information sheet for passengers requiring medical clearance).
Use the operating airline’s own form if applicable.
### Information Sheet for Passengers Requiring Special Assistance

1. Last name / First name / Title ........................................................................................................................................

2. Passenger name record (PNR) ........................................................................................................................................

3. Proposed itinerary ...........................................................................................................................................................

   - Airline(s), flight number(s) ..........................................................................................................................................
   - Class(es), date(s), segment(s) ........................................................................................................................................

4. Nature of disability ..........................................................................................................................................................

5. Stretcher needed onboard?       ____ Yes   ____ No

6. Intended escorts          ____ Yes  ____ No

   - Name...........................................................................................................................................................................
   - Title................................................................................................................................................................................
   - Age...................................................................................................................................................................................

   - PNR if different............................................................................................................................................................

   - Medical qualification   ____ Yes   ____ No   Language spoken...................................................................................

7. Wheelchair needed          ____ Yes  ____ No

   - Wheelchair categories   ____ WCHR   ____ WCHS   ____ WCHC  Own wheelchair   ____ Yes   ____ No
   - Collapsible WCOB       ____ Yes   ____ No   Wheelchair type   ____ WCBD   ____ WCBW   ____ WCMP

8. Ambulance needed (to be arranged by the Airline) ____ Yes  ____ No

   - If yes, specify destination address............................................................................................................................

   - If no, specify ambulance company contact................................................................................................................

9. Meet and assist          ____ Yes  ____ No

   - If designated person, specify contact........................................................................................................................

10. Other ground arrangements needed    ____ Yes  ____ No

   - If yes, specify.................................................................................................................................................................

   - Departure airport............................................................................................................................................................

   - Transit airport.................................................................................................................................................................

   - Arrival airport.................................................................................................................................................................

11. Special inflight arrangements needed     ____ Yes  ____ No

   - If yes, specify type of arrangements (special meal, extra seat, leg rest, special seating)...........................................

   - Specify equipment (respirator, incubator, oxygen, etc).................................................................................................

   - Specify arranging company and at whose expense........................................................................................................

12. Frequent traveler medical card (FREMEC)   ____ Yes  ____ No

   - If yes, specify FREMEC number, issued by, expiry date............................................................................................

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**Passenger Handling Procedures—IGOM**

**MEDIF—Attachment A**
Information Sheet for Passengers Requiring Medical Clearance (to be completed or obtained from the attending physician)

1. Patient’s name: 
   Date of Birth: 
   Sex: 
   Height: 
   Weight: 

2. Attending physician: 
   E-mail: 
   Telephone (mobile preferred, indicate country and area code): 
   Fax: 

3. Diagnosis (including date of onset of current illness, episode or accident and treatment, specify if contagious): 
   Nature and date of any recent and/or relevant surgery: 

4. Current symptoms and severity: 

5. Will a 25% to 30% reduction in the ambient partial pressure of oxygen (relative hypoxia) affect the passenger’s medical condition? (Cabin pressure to be the equivalent of a fast trip to a mountain elevation of 2400 meters (8000 feet) above sea level) 
   - Yes 
   - No 
   - Not sure 

6. Additional clinical information 
   a. Anemia: 
   b. Psychiatric and seizure disorder: 
   c. Cardiac condition: 
   d. Normal bladder control: 
   e. Normal bowel control: 
   f. Respiratory condition: 
   g. Does the patient use oxygen at home? 
   h. Oxygen needed in flight? 

7. Escort 
   a. Is the patient fit to travel unaccompanied? 
   b. If no, would a meet-and-assist (provided by the airline to embark and disembark) be sufficient? 
   c. If no, will the patient have a private escort to take care of his/her needs onboard? 
   d. If yes, who should escort the passenger? 
   e. If other, is the escort fully capable to attend to all the above needs? 

8. Mobility 
   a. Able to walk without assistance: 
   b. Wheelchair required for boarding: 

9. Medication list: 

10. Other medical information: 

Information Sheet for Passengers Requiring Medical Clearance (to be completed or obtained from the attending physician)

1. Cardiac condition
   a. Angina
      ___ Yes ___ No When was last episode? ............................................................
      • Is the condition stable? ___ Yes ___ No
      • Functional class of the patient?
        ___ No symptoms ___ Angina with important efforts ___ Angina with light efforts ___ Angina at rest
      • Can the patient walk 100 meters at a normal pace or climb 10-12 stairs without symptoms? ___ Yes ___ No
   b. Myocardial infarction ___ Yes ___ No Date……………………………………………………….
      • Complications? ___ Yes ___ No If yes, give details …………………………………………………………….
      • Stress EKG done? ___ Yes ___ No If yes, what was the result?……………………………Metz
      • If angioplasty or coronary bypass,
        can the patient walk 100 meters at normal pace or climb 10–12 stairs without symptoms? ___ Yes ___ No
   c. Cardiac failure ___ Yes ___ No When was last episode? ............................................................
      • Is the patient controlled with medication? ___ Yes ___ No
      • Functional class of the patient?
        ___ No symptoms ___ Shortness of breath with important efforts ___ Shortness of breath with light efforts ___ Shortness of breath at rest
   d. Syncope ___ Yes ___ No Last episode………………………………………… ……………………….
      Investigations? ___ Yes ___ No If yes, state results…………………………………………………………..

2. Chronic pulmonary condition ___ Yes ___ No
   a. Has the patient had recent arterial gases? ___ Yes ___ No
   b. Blood gases were taken on: ___ Room air ___ Oxygen …………………………..LPM
      If yes, what were the results .................pCO2 .................pO2
      Saturation.................................................. Date of exam………………………………………………………….
   c. Does the patient retain CO2? ___ Yes ___ No
   d. Has his/her condition deteriorated recently? ___ Yes ___ No
   e. Can the patient walk 100 meters at a normal pace or climb 10-12 stairs without symptoms? ___ Yes ___ No
   f. Has the patient ever taken a commercial aircraft in these same conditions? ___ Yes ___ No
      • If yes when?................................... ..........................................................................................................................................
      • Did the patient have any problems?..........................................................................................................................................

3. Psychiatric Conditions ___ Yes ___ No
   a. Is there a possibility that the patient will become agitated during flight ___ Yes ___ No
   b. Has he/she taken a commercial aircraft before ___ Yes ___ No
      • If yes, date of travel? ....................... ................... Did the patient travel ___ alone ___ escorted?

4. Seizure ___ Yes ___ No
   a. What type of seizures?..........................................................................................................................................
   b. Frequency of the seizures..........................................................................................................................................
   c. When was the last seizure?..........................................................................................................................................
   d. Are the seizures controlled by medication? ___ Yes ___ No

5. Prognosis for the trip ___ Yes ___ No
Physician Signature…………………………………………………………………… Date …………………… ……………….

Note: Cabin attendants are not authorized to give special assistance (e.g. lifting) to particular passengers, to the detriment of their service to other passengers. Additionally, they are trained only in first aid and are not permitted to administer any injection, or to give medication.

Important: Fees, if any, relevant to the provision of the above information and for carrier-provided special equipment are to be paid by the passenger concerned.
1.4.5.2 Frequent Travelers Medical Card (FREMEC)
If a passenger is a frequent airline traveller and has a stable medical condition established by the initial medical clearance, then a frequent traveller's medical card (FREMEC) may be issued by the operating airline.

1.4.5.3 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) The use of oxygen on board and the use of a personal portable oxygen concentrator, ventilator or respirator onboard.
(c) The carriage of an incubator.

1.4.5.4 Seating
MEDA passengers are entitled to the most appropriate seating according to their needs, including the stowage of on board medical devices or equipment.
Appropriate seating, as per operating airline policy and passenger needs, should be assigned to:
(a) passengers needing extra oxygen on board;
(b) passengers traveling on a stretcher;
(c) completely immobile passengers;
(d) a passenger travelling with a service animal;
(e) a passenger with a fused or immobilized leg.
Provide adjacent seating as applicable for:
(a) a personal care attendant;
(b) a safety assistant;
(c) a reader/interpreter in case of a vision or hearing impairment.
PRM/MEDA and PRM/Non-MEDA may not be seated in emergency exits.

1.4.5.5 Request for Assistance without Advanced Notice
If a passenger's special needs were not communicated at the time of booking, or a passenger is identified as a PRM or potential MEDA case upon departure, take all reasonable efforts to accommodate the passenger. Ask appropriate questions and record required codes in the DCS.

1.4.6 Passengers not Requiring Medical Clearance
As per the operating airline's policy, some passengers may not be required to provide medical clearance. For example:
(a) expectant mothers up to a date specified before expected delivery;
(b) persons with simple fractures or injuries;
(c) persons who are reduced in mobility due to age;
(d) SSR codes WCHR, WCHS or WCHC (plus WC Dangerous Goods codes) provided the condition has remained unchanged for at least the past six months;
(e) persons who are visually or hearing impaired;
(f) persons with mental health issues.

1.4.6.1 Handling
Check that additional needs have been communicated via the respective SSR codes and entered into the DCS, and verify if escort requirements are fulfilled, if applicable.

1.4.6.2 Refusal of PRM's and/or MEDA Cases
Do not refuse the passenger unless there is a legitimate reason for refusal, as per the operating airline’s policy.

1.4.6.2.1 Right of Refusal
A PRM and/or MEDA cases may be refused on the basis of the operating airline’s General Conditions of Carriage (Right to Refuse Carriage).

1.4.6.2.2 Reasons for Refusal
Do not refuse a passenger unless one of the following reasons is applicable, and in accordance with the operating airline policy:
(a) The person has such a degree of physical infirmity that the trip would likely result in complications (e.g. diversion) or death.
(b) The person requires individual nursing or care during the flight, if not accompanied by a suitable escort.
(c) The person who, because of his physical or medical condition, pose a direct threat to the health or safety of other passengers, their property, the aircraft or crew that cannot be eliminated by providing additional aid or services or by other means (e.g. face masks, separate seating).

(d) The person fails or refuses to submit themselves to the specific conditions of carriage required by the operating airline regulations.

(e) Information is required about the passenger's medical condition (diagnosis) where the passenger's own physician refuses to disclose such information to the Authorized Medical Service.

(f) The person has a contagious disease.

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

Apply the operating airline policy 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 refund of the ticket.

(a) Enter all relevant information about the reason for refusal into the PNR or in the operating airline report e.g. pax refused [flight/date] d/l lack of safety assistant [SITA address/agent name]

(b) Forward the PNR or report to the appropriate airline department. Document all details of the incident and submit as specified by the operating airline.

1.4.7 Service Animals
As per the operating airlines acceptance policy, accept passengers with certified service animals into the cabin, and provide appropriate seating with room for both the passenger and the animal, including additional floor space where mandated and as per operating airline policy.

1.4.8 Stretcher Transport

1.4.8.1 General
If accepted by the operating airline, transport on a stretcher can be arranged provided advance notification is given for passenger(s) 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 the operating airline policy.

(b) Status details are to be updated in the check-in record.

The acceptance of stretcher cases is linked to:

(a) The acceptance conditions of PRM/MEDA cases.

(b) The provisions for stretcher installation onboard the aircraft.

1.4.9 Oxygen for Medical Use

1.4.9.1 Acceptance
Once the operating airline has accepted:

(a) arrange pre-boarding for the passenger;

(b) add appropriate SSR codes for assistance;

(c) seat the passenger as per operating airline policy allowing for stowage of equipment.

1.4.10 Inadmissible Passengers and Deportees

1.4.10.1 Inadmissible Passengers (INAD)
An INAD is an inadmissible passenger who is or will be refused admission to a State by its authorities.

1.4.10.1.1 Unaccompanied or Accompanied Travel
In general, INADs travel without being accompanied.

INADs need to be accompanied if:

(a) the INAD physically resists carriage;

(b) he has already been denied transportation by another airline;

(c) there is any sign he might endanger the safety of the flight or passengers.

For the above reasons, unaccompanied INADs may also be refused at any stage.
1.4.10.1.2 Refusal
If an INAD resists transportation or gives rise to the assumption that he/she will be the source of annoyance to other passengers or crew members, then only accept him/her according to the procedure for DEPA.
Refuse the carriage of deportees or inadmissible passengers if they are likely to:
(a) involve any risk to the safety of the flight;
(b) involve any hazard or risk to himself, other passengers or crew members;
(c) cause discomfort or make himself objectionable to other passengers;
(d) require special assistance from ground or in-flight staff.

1.4.10.2 Deportees
DEPO is used to designate a deportee:
(a) that was formally ordered by the authorities to leave that State;
(b) who is under arrest who has to be transported to another State for legal reasons;
(c) who has applied for asylum and is transferred to the state responsible for the application;
(d) described by the term “Dublin Convention” as reasons for transportation.

DEPA–deportee accompanied
(a) A deportee who is escorted by security escorts during flight

DEPU–deportee unaccompanied
(a) A deportee who is not escorted by security escorts during flight

The responsibility for deportees lies fully with the state(s) concerned.
Deportees will be accepted for carriage only on request of an Authority and upon operating airline approval.

1.4.10.2.1 Seating
Assign inadmissible passengers, deportees and their escorts seats in the rear of the cabin, but not directly adjacent to exits, in accordance with operating airline policy.

1.4.10.2.2 Travel Documents
Hand the travel documents to the crew if required by the local authorities, local regulations or operating airline procedure.

1.4.10.2.3 Handling
Advise the crew and Pilot-in-Command of INAD, DEPA and DEPU carriage.

1.4.11 Unruly Passengers

1.4.11.1 General Conditions of Passenger Carriage
Carriers may refuse carriage or onward carriage of any passenger for reasons of safety in order to prevent violation of any applicable law, regulations or order of any state or country to be flown from, into or over.

1.4.11.2 Handling Unruly Passengers During Check-In or Boarding
Report to the supervisor any unruly passenger behavior you observe at check-in, in the lounge, or at the boarding gate, and put baggage of such passengers on standby.

1.4.11.3 If Passenger is Denied Carriage
(a) Offload the passenger in the DCS and offload his baggage.
(b) Document the case in the airport or airline report, with details of the passenger's condition (e.g. intoxicated, general abuse, etc.).

1.4.11.4 If Passenger is Accepted for Travel
(a) Inform Pilot-in-Command and the senior cabin crew member.
(b) Document the case in the airport or airline report with details of the passenger's condition.
(c) Report the incident to the applicable departments and the onward airport.
1.5 Passenger Irregularities

1.5.1 General Passenger Irregularity Guidelines

1.5.1.1 Information and Communication to Passengers
In general, provide immediate and accurate information at regular intervals.
(a) Ensure staff are briefed for consistent delivery of information.
(b) Provide passengers written information about their rights according to applicable regulations, upon requested or as required.
(c) Provide information in alternate formats to passengers with impairments.

1.5.2 Delays

1.5.2.1 Handling Procedures
(a) Passengers must be advised and notified of delays, and kept informed at regular intervals.
(b) Where applicable, provide delay notice or passenger rights information and in alternate formats for passengers with impairments.
(c) Brief staff on the estimated time of departure, estimated time of arrival, and any provisions being offered.

1.5.2.2 Delay Known Before Check-In
(a) Update revised times in the DCS.
(b) If applicable and as per operating airline policy, rebook any connecting flights according to the airline’s priority sequence.
(c) Check the passenger and baggage through on the rebooked flight.

1.5.2.3 Delay Known Before Boarding
(a) Reconfirm the departure gate and time, and update the revised times in the DCS.
(b) Advise passengers accordingly and at regular intervals.
(c) Apply airline specific procedures for certain categories of passengers.

1.5.3 Misconnections/Cancellations/Diversions
Handle misconnections in accordance with the operating airline’s General Conditions of Carriage.

1.5.4 Involuntary Change of Class
Involuntary changes of class must be handled as per the operating airline policy.

1.5.5 Denied Boarding due to Unavailability of Seats

1.5.5.1 General
Passengers holding a confirmed reservation may be denied boarding due to irregularity reasons, for example:
(a) overbooking of the flight;
(b) reduced aircraft seating capacity due to unserviceable equipment (cabin doors, slides, etc.);
(c) reduced weight/seat capacity due to a payload restriction;
(d) change of aircraft or version.
Apply operating airline policy for denied boarding.
(a) If applicable, solicit volunteers and offer compensation and/or reprotection as per the operating airline policy.
(b) Provide written notice as per government regulations.
(c) Apply airline’s involuntary denied boarding policy if no volunteers are solicited.
Chapter 2: Baggage Handling Procedures

2.1 Cabin Baggage

2.1.1 General

2.1.1.1 Definition
Cabin baggage is baggage that is carried and stowed in the cabin under the passengers control and custody. It is commonly referred to as carry-on baggage or unchecked baggage. Each operator sets their standards for size, weight and number of pieces permitted as baggage.

2.1.1.2 Types of Cabin Baggage
Cabin baggage includes:
(a) cabin baggage carried within the operator's free carry-on baggage allowance;
(b) free carry-on items permitted by the operator in addition to the standard (e.g. purse, laptop, duty free item);
(c) special items permitted by the operator that may require prior arrangement, notification and/or specialized screening requirements or additional charges (e.g. urns containing human remains, pets in cabin);
(d) items of dangerous goods permitted in passenger baggage that require prior approval by the operator, see IATA Dangerous Goods Regulations (DGR).

2.1.2 Acceptance

2.1.2.1 Acceptance Policies
Cabin baggage cannot be accepted if it:
(a) is unsuitable for air carriage due to its weight, size or nature;
(b) cannot fit under the seat or be stowed in the overhead compartment;
(c) is unsuitably packed;
Restrictions
(d) certain items, because of their weight, size or nature are only accepted with the consent of the operator;
(e) for security reasons, many countries restrict the carriage of liquids, aerosols and gels in hand baggage;
(f) items refused by security screening must be hold-checked as per the operator's policy.

Caution: According to IATA Dangerous Goods Regulations (DGR), certain items are prohibited in checked baggage, e.g. cigarette lighters, matches, spare lithium batteries.

2.1.2.2 Procedure at Check-In
Assess the size, weight and intended number of pieces of carry-on baggage to meet the operator's standard.
(a) Weigh carry-on bags if they appear to exceed the specified weight/size limit (weighing of all carry-on baggage may not be systematically required unless mandated by the operator).
(b) Refer the passenger to the baggage gauge, if available.
(c) Attached an "approved for carry-on" tag if applicable.
(d) If the carry-on baggage exceeds the free allowance size and/or weight, it must be hold-checked, and charged if applicable.
(e) Be aware of commonly carried dangerous goods items and ask the passenger of these being carried.

2.1.2.3 Procedure at Boarding
Check for items which are unacceptable, oversize, overweight or exceed the number of pieces as free carry-on baggage, using the cabin baggage gauge if applicable.
(a) Check with the passenger that the baggage contents are in compliance with the IATA Dangerous Goods Regulations (DGR).
Have the passenger remove any items specifically prohibited in hold baggage.
(b) Advise the passenger to remove any personal documents or medications.
(c) Collect any other cabin baggage that cannot be accommodated on board due to limited storage space.
(d) Tag bag to the final destination.
(e) Account for the baggage tag number(s) and weight into the DCS check-in record or manually.
(f) Inform the passenger of pick up at the baggage claim area or aircraft door (DAA) if applicable.
(g) Advise ramp staff and/or Load Control of the gate baggage to be loaded.

2.2 Checked Baggage

2.2.1 General

2.2.1.1 Definition and General Terms
Checked baggage is baggage for which the carrier takes custody and issues a baggage check.
(a) Checked baggage is carried in the hold of the aircraft on which the passenger is travelling.
(b) The operator may refuse to carry checked baggage which is inadequately packed or unsuitable for air carriage due to its weight, size or nature.
(c) Every piece of baggage must display the passenger's name.
(d) In case of code share flights, the operator's rules apply.
Note: Certain items, because of their weight, size or nature, are only accepted with consent of the operator.

2.2.1.2 Checked Baggage Allowance
Passengers are entitled to a pre-determined checked baggage allowance set by the operator, which can vary based on the fare paid, passenger category, routing, group status or class.
There are two standard checked baggage allowance concepts:
(a) Weight Concept: measured by the total weight of checked baggage (shown as weight amount on ticket e.g. 20 kg (45 lb)).
(b) Piece Concept: measured by the number of pieces of checked baggage (shown as PC on ticket).

2.2.2 Excess Baggage
Excess baggage fees per kilogram or piece or special item are generally applied at the time of checked baggage acceptance.
(a) Apply excess baggage fees as per operator's specifications.

2.2.3 Standard Baggage Check-In
Accept checked baggage that is appropriately packaged and labeled with passenger identification.
(a) Ensure dangerous goods signage is on display.
(b) Review weight and pieces information for recording in the DCS and for applying appropriate fees.
(c) If applicable, ask the passenger any required security related questions.
(d) Agent should be aware of items due to their nature that might contain dangerous goods. Refer to section 2.5.7.

2.2.4 Baggage Tags
(a) All old tags must be removed.
(b) Apply appropriate destination tag and handling tags.
(c) Place tags in an easily readable location, and where they will not easily be torn off.
(d) Follow tag instructions, and do not stick glue directly to passenger baggage.
(e) Use limited release tags as per operator policy.
(f) Follow operator procedure with respect to supplementary tags on baggage items, such as:
   1. Priority tags—to identify Priority baggage to be offloaded first, and segregated as per carrier.
   2. Limited Release Tags—used on fragile or unsuitably packaged items.
   3. Fragile Sticker—requires extra care in handling.
   4. Heavy Tag—placed on items over 23 kg (50 lb).
   5. Connection tags—may require segregation on loading and offloading.

2.2.5 Baggage Destination
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 specified in the ticket, including:
   1. any tickets issued in conjunction with this ticket,
   2. any separately issued tickets with an interline agreement.
(e) Make sure that the Minimum Connecting Time (MCT) is respected.

2.3 Special Baggage

2.3.1 Bulky and Oversized Baggage

2.3.1.1 General
Baggage is bulky/oversized as defined by the operator policy and/or its weight exceeds 32 kg (70 lbs).

2.3.1.2 Maximum Single Item Weight
No single piece of checked baggage can be accepted over 32 kg (70 lbs). Airlines may also restrict the weight and/or total dimensions.
If presented, the passenger must:
(a) Repack it into more pieces, each weighing less than 32 kg (70 lbs), or
(b) Send it as cargo.
Exception: Special equipment like AVIH, WCH, musical instruments and large sports equipment may be excluded from this rule with prior consent of the operator.

2.3.2 Cabin Seat Baggage (CBBG)

2.3.2.1 Definition
Cabin Seat Baggage is baggage not usually suitable for loading in the aircraft hold. Such baggage may include:
(a) musical instruments;
(b) works of art;
(c) electronic equipment;
(d) diplomatic baggage;
(e) valuable baggage.
Operator policy will dictate the acceptance of CBBG. If not accepted, it can travel as hold checked baggage providing packaging is appropriate.

2.3.2.2 Loading and Lashing Cabin Seat Baggage
If applicable, staff approved by the operator are responsible for securing, loading and lashing of bulky, oversize, fragile or valuable baggage in the cabin.

2.3.3 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.

2.3.4 Delivery at Aircraft (DAA)

2.3.4.1 Applicability
As per the operator policy, apply the “delivery at aircraft” procedure for:
(a) fully collapsible baby strollers and pushchairs: (larger baby carriages/prams must be checked-in).
(b) wheel chairs and mobility aids which are not needed during the flight and cannot be stored in the cabin.
(c) regular carry-on baggage on small aircraft with limited stowage space in the cabin.
Do not use the “delivery at aircraft” procedure for expensive items (e.g. laptop computers, large video cameras, etc.), valuable or important documents, etc., as such items should remain with the passenger.

2.3.4.2 Procedure at Boarding Gate
Ensure DAA pieces and WCH and their loading position are noted on the Load Message under SI–Remark.
If applicable, inform the flight deck crew of the number of DAA bags.
2.3.4.3 Procedure at Arrival
Upon arrival:
(a) As per the LDM and/or crew request, unload the DAA items/baggage and delivery to the aircraft door.

2.3.4.4 Security Procedure for Ad-Hoc Disembarking Passengers
If a passenger disembarks, check if any DAA baggage has been loaded for the passenger.
(a) When in doubt, perform a full DAA baggage identification.

2.3.5 Sporting Equipment
Generally, sporting equipment will be presented as separate pieces of checked baggage.
Accept sporting equipment as per operator procedure.
(a) Apply procedures for fees and charges, and special handling if required.
(b) Use limited release tag if applicable.
(c) Load as per operator instructions.

2.3.6 Wheelchairs and Mobility Aids
2.3.6.1 Handling Wheel Chairs/Mobility Aids
Apply the “delivery at aircraft” procedure when personal collapsible wheel chairs/mobility aid devices are taken to the gate. Verify with and advise the passenger accordingly. Ensure the wheel chair/mobility aid has a name label, DAA tag and destination tag on it.
(a) If applicable, issue a NOTOC and advise the pilot in command of the location of the wheel chair or mobility aid device.
(b) Stow and secure the wheel chair/mobility aid device to prevent unintentional operation and ensure it is protected from being damaged by the movement of baggage, mail or cargo.

2.3.6.2 Wheelchairs or other Battery Operated Mobility Aids
There are two main types of batteries used with wheel chairs or mobility aid devices:

<table>
<thead>
<tr>
<th>Type of battery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-spillable</td>
<td>Dry battery (including integrated battery)</td>
</tr>
<tr>
<td>battery</td>
<td>Gel type battery</td>
</tr>
<tr>
<td></td>
<td>Wet (sealed) battery</td>
</tr>
<tr>
<td></td>
<td>Lithium-ion battery</td>
</tr>
<tr>
<td>Spillable</td>
<td>*Wet battery (*check operator policy)</td>
</tr>
</tbody>
</table>

All such batteries must be hold-checked.

2.3.6.3 Accepting Wheelchairs/Mobility Aids with Non-Spillable Batteries
Pre-notification may be required and acceptance is subject to operator approval.
(a) Battery terminals must be insulated to prevent accidental short circuits, e.g. by being enclosed within a battery container.
(b) Battery must be securely attached to the wheel chair.

2.3.6.4 Accepting Wheel Chairs/Mobility Aids with Spillable Batteries
(only if accepted by the operator)
Pre-notification is required and acceptance is subject to operator approval.
(a) Packing rules:
1. Wheel chair must be loaded, stowed, secured and unloaded while maintaining an upright position.
2. Battery terminals must be insulated to prevent accidental short circuits, e.g. by being enclosed within a battery container.
3. Battery must be securely attached to the wheel chair.
(b) Battery must be carried in strong, rigid packaging as follows:
1. The outside packaging must be leak-tight, impervious to battery fluid and protected against spilling by securing to pallets or by securing them in cargo compartments using appropriate means of such as restraining straps, brackets or holders.
2. The battery terminals must be protected against short circuits.
3. The battery must be secured upright in the packaging and be surrounded by compatible absorbent material sufficient to absorb its total liquids.
4. The outside packaging must be marked “battery—wet—with wheel chair”.
5. The outside packaging must be labeled with the “corrosive” label.

(c) Battery must not be loaded if not packaged appropriately.

2.3.7 Handling of Pets

2.3.7.1 General
Handling of pets, in accordance with operator policy.

There are two methods of carriage:
(a) pets carried in the passenger cabin in an approved container (subject to operator acceptance policy);
(b) pets carried in the cargo compartment.

2.3.7.2 Animals in Hold (AVIH)
Animals in Hold are transported as checked baggage in the aircraft hold.
(a) domestic animals such as dogs, cats, birds, etc.;
(b) other small warm-blooded animals, such as guinea pigs, hamsters, rabbits, etc.;
(c) Apply operator acceptance procedures with local customs requirements, animal age and health requirements.

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

2.3.7.3 AVIH Handling
(a) Only rigid containers with a secure door are acceptable.
(b) A water container must be provided in each container.
(c) Only one animal per container, unless they are used to cohabiting.
(d) The container must be large enough to permit the animal to stand in a natural position, turn around and lie down.
(e) Animals should be loaded last and unloaded first.
(f) Minimize time on the ramp to protect animals from wind, rain, noise and extreme temperatures.
(g) Keep other baggage at least 150 mm (6 inches) away from the container sides to maximize ventilation.
(h) Natural predators should not be positioned next to each other.
(i) Do not load animals in the same compartment with dry ice or radioactive materials.
(j) Exercise caution with containers that have wheels, ensuring the container cannot roll during loading.
(k) Containers must be securely attached to the compartment to prevent shifting, using tie down straps.
(l) Take the deplaning animals immediately to the terminal for claim by their owners.
(m) Never use the baggage chute to deliver an animal. If the animal cannot be immediately claimed, take the animal to a climate controlled waiting room.
(n) The flight crew and station should be informed of AVIH loading to ensure sufficient heat and airflow are maintained.

2.4 Baggage Handling

2.4.1 Baggage Room Preparation
The baggage room must prepare a sufficient and pre-determined number of baggage carts and containers in accordance with the expected passenger load for a flight.

2.4.1.1 ULD Preparation
(a) Check that the ULD is in a serviceable condition before using. Use the ULD damage limitation sticker attached to the ULD as a guide.
(b) Each ULD should have a “Container Card” inside the pouch near the door and a “Bingo Sheet” attached to the outside of the ULD next to the pouch (for non automated loading).
(c) All curtains and doors on the ULDs must be properly closed and latched prior to dispatching the ULDs to the ramp for loading.
(d) Every item loaded into the container must be recorded on the Bingo Sheet or scanned for automated loading.
(e) As each bag is loaded into a ULD, the security sticker must be peeled off of its bag tag and placed on the bingo sheet and retained after departure with the flight documentation.
2.4.2 Baggage Tags
Apply sorting and loading procedures into containers and cards based on operator policy with respect to checked items tagged as:
(a) Priority baggage
(b) Heavy baggage
(c) Connection baggage
(d) Late baggage
(e) Fragile baggage
(f) Sporting equipment
(g) Mobility aids or devices
(h) Animals in hold
(i) Crew baggage
(j) Strollers
(k) Gate Delivery Items
(l) Items containing dangerous goods (i.e. Dry Ice)
(m) Standby baggage
(n) Items with limited release tag

2.4.3 Baggage Cut-Off & ULD Load Verification Process
Once a flight has been closed for check-in, the Baggage room lead or the Baggage supervisor will:
(a) review total pieces for each ULD;
(b) pass on all baggage ULD figures including baggage counts for each container number and ULD numbers so that the total load summary can be prepared;
(c) Conduct a baggage room sweep to ensure there are no left behind bags.
If baggage is left behind, report to Baggage Services. Appropriate messages must be sent to the down line station and arrangements made to expedite the return of the bag to the passenger.

2.4.4 Removal of Checked Baggage
If instructed to remove hold checked baggage, obtain the name and security number and number of pieces of baggage requiring removal. Refer to electronic records or the bingo sheets to identify the ULD where the baggage is located in order to offload.
The baggage is removed and must be re-screened prior to returning it to passenger services for further handling, subject to local security procedures.
In certain countries, higher baggage screening standards may apply and must therefore be followed.
Always communicate with gate or operator staff with respect to the addition or removal of any checked baggage.

2.4.5 Transfer Baggage
Through-label transfer baggage provided the connection is scheduled:
(a) the same day or
(b) the next day within 24 hours
(c) No change of airport
(d) Subject to local requirements
Do not through-label baggage—even at the passenger’s request—in case of obvious undercutting of the Minimum Connecting Time (MCT).
An interline agreement must be in place with the connecting carrier.

2.4.5.1 Special Cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Through-labeling</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs clearance required at the transfer point</td>
<td>Yes</td>
<td>Advise passenger to pick up baggage at the transfer point. Refer to TIM/TIMATIC for country rules.</td>
</tr>
<tr>
<td>The passenger specifically wants his baggage at a transfer point</td>
<td>No</td>
<td>Inform the passenger about the risk of missing the connecting flight.</td>
</tr>
<tr>
<td>Animals in hold</td>
<td>Yes</td>
<td>Only permitted if the continuing carrier has confirmed acceptance. Within permissible MCT.</td>
</tr>
</tbody>
</table>
2.4.6  Short Connection Baggage

2.4.6.1  Definition
Short connection baggage is baggage of passengers having an onward connection out of a hub with a short scheduled connecting time.

2.4.6.2  Identification
Short connection baggage is identified by a remark on the baggage tag and/or by a separate short connection tag or sticker.

2.4.6.3  Handling Short Connection Baggage
Apply the following short connection baggage procedure at outstations.
(a) Identify all short connections out of the hub airport.
(b) Handle and prioritize as per operator procedure.

2.5  Baggage Security

2.5.1  General
Refer to the IATA Security Manual and Operating airline Ground Operations Manuals for guidance.

2.5.2  Handling of Hold Baggage
If passengers and crew members are required to personally identify their hold baggage before loading, do not load any baggage not identified.
Ensure there is no opportunity for the exchange of cabin baggage for hold baggage which may contain items to be used in a planned act of unlawful interference.
When screening of hold baggage gives rise to suspicion regarding the contents, the local screening authority will proceed as per local regulations.

2.5.3  Carriage of Weapons in Hold Baggage
Apply operator handling and acceptance procedures.
Weapons are to be kept secured at all times either by approved personnel or locked away in a secure location.

2.5.4  Security Removed Items
Items not permitted in hand baggage that are removed by security screening personnel may only be accepted in checked baggage, as per operator handling and acceptance procedures.

2.5.5  Transfer and Connecting Baggage
When passengers have to collect their hold baggage during the transfer process (because of immigration or security policies of a State), treat hold baggage as originating baggage.
(a) If baggage is collected landside, submit it to screening before loading on the aircraft.
(b) If the baggage is collected and transferred in the sterile area, re-screening may not be necessary.
Interline, transfer and connecting baggage must follow the reconciliation procedures as originating baggage, section 2.5.6.

2.5.6  Baggage Reconciliation

2.5.6.1  Originating Passengers
(a) Maintain passenger/baggage reconciliation for all flights, including:
   1. standby passengers;
   2. off-airport and group check-in passengers;
   3. voluntary or involuntary deplaning.

2.5.6.2  On-Line, Transfer Passengers
Baggage that is separated from the passenger must be subject to additional security controls.
2.5.6.3  Interline Passengers
(a) Do not load hold baggage of an interline passenger unless the passenger has a confirmed reservation for the onward flight and the baggage is matched by the onward operating airline.
(b) In case of high-risk airlines or high-risk flights, interline passengers may be required to identify the baggage before it is transported.

2.5.6.4  Disembarking Transit Passengers
Offload the cabin and hold baggage of any passenger who disembarks earlier than the station of arrival.

2.5.6.5  Manual Baggage Reconciliation at Originating Station
(a) After acceptance, ensure checked baggage is kept in a secure area.
(b) Crew baggage should be individually identified and marked as crew.
(c) Secure the flight by matching the checked-in passengers to the boarded passengers. Confirm total boarded passenger count with crew. Confirm by head count if this is operator policy.
(d) If there are passenger discrepancies (minus or plus), they must be resolved prior to closing the aircraft door.
(e) Make every attempt to locate missing passengers and obtain visual proof of boarding and documents if they are located on the aircraft.
(f) As per operator procedures and government regulations, remove the checked baggage of passengers who check-in but fail to board.
(g) Notify crew of any last minute changes to passenger and/or baggage load.

2.5.6.6  On-Line Transfer Checked Baggage Reconciliation
(a) Load transfer between two flights of the same Operator (on-line) if the inbound passenger transfer message contains the passenger names and baggage details for control.
(b) If the passenger fails to transfer for any reason, the passenger’s checked baggage must be removed.

2.5.7  Dangerous Goods in Baggage
Passengers and crew may carry items in their baggage which can be considered dangerous goods.
Refer to the IATA Dangerous Goods Regulations (DGR) for handling and acceptance procedures, and for a list of accepted dangerous goods for passenger use.
Agents should be aware of commonly carried items and question passengers of their carriage. (e.g. camping equipment, hunters).
Should undeclared or mis-declared dangerous goods be discovered, this must be reported to the operator and Supervisor, State of Authority, and all items not be permitted to travel.

2.6  Mishandled Baggage

2.6.1  Storage and Handling Mishandled/Unidentified/Unclaimed Baggage
Enter found baggage details into tracing system.
Hold such baggage in a safe and secure area where access is controlled.
Make sure such baggage is subject to additional security controls before being loaded into an aircraft. These controls could include a combination of:
(a) Manual search;
(b) X-ray;
(c) Simulation chamber;
(d) Vapor or trace analysis;
(e) Delayed onward dispatch for 24 hours or more;
In addition:
(f) “RUSH” tag to be used;
(g) Follow the security requirements of the forwarding carrier;
(h) It is preferable to load unaccompanied baggage in the Aft Bulk hold of the aircraft;
(i) The number of unaccompanied bags with a “RUSH” tag must be included in the total load summary.
2.6.2 Mobility Aids
Damaged, delayed or missing mobility aids should be handled as priority:
(a) Provide a suitable equivalent loaned item or replacement as needed and as per operator policy.
(b) Arrange for the repair or replacement of the item immediately.

2.6.3 AVIH
Delay of or damage/injury to AVIH should be handled as priority.

2.6.4 Legal Time Limits for Reporting
Loss, delay or damage to baggage must be reported immediately upon arrival, or within 7 days for damage, 21 days for delay, subject to operator procedures. Follow standards from the IATA Baggage Services Manual.
Chapter 3: Cargo/Mail Handling Procedures

3.1 Cargo Acceptance
The primary objective for cargo acceptance handling is to ensure that consignments are ready for carriage in compliance with customer airline and IATA regulations, as well as with export rules and regulations of the originating point, with rules and regulations of airport(s) of transit and import rules and regulations of the destination country, if applicable.

3.1.1 Determine Process Flow
In order to understand which process to follow, a determination as to the type of acceptance procedure to apply must be made. Preferably this determination would be system generated through the evaluation of the available data.
Retrieve data/instructions and process according to one of following 3 scenarios:
(a) EEC - If Electronic Cargo Contract code (ECC) is present, no paper air waybill is needed, follow Electronic Air Waybill (eAWB) Data Verification (3.1.3).
(b) ECP - If Electronic Contract Print code (ECP) is present (an EDI agreement signed and partners are single-process enabled), print the paper AWB and follow Paper Air Waybill Verification (3.1.4).
(c) If no ECC code, no ECP Code and no EDI agreement signed request a paper AWB and follow Cargo Acceptance–Paper AWB.

3.1.2 Physical Inspection of Goods
Upon receipt of the physical cargo verify the following information:
(a) Number of pieces. Inspect the cargo or ULD for signs of damage, tampering or pilferage.
   1. If damaged, (see 3.6);
   2. If tampered, treat as unknown cargo and apply applicable screening procedures
(b) Weight
(c) Volume or dimensions
(d) ULD information, if applicable
(e) Special handling information, if applicable
(f) Routing information, if applicable
(g) Applicable labeling as shown in 3.1.2.1
(h) Verify that the applicable security information in accordance with TACT (electronic or paper) accompanies the cargo with particular attention to the following information:
   1. if a security declaration is provided (known cargo) verify it includes a valid regulated agent ID.
(i) The security status code is applicable for the aircraft being operated
   1. SPX/SHR for passenger and cargo aircraft
   2. SCO for cargo aircraft only
(j) If no security declaration is provided the cargo must be treated as unknown cargo and applicable screening procedures applied.
(k) Document information about the cargo actually received, e.g. freight on hand in status message (FSU (FOH)), counter-sign the shipper’s delivery note or produce warehouse receipt.
   Note: The warehouse receipt may be an electronic message.
(l) If the cargo tendered differs from Air Waybill information see Cross-Check of Air Waybill Information (3.1.3.1) for procedure.
(m) Inspect the packaging to ensure it is able to withstand all conditions normally incidental to transport, including:
   1. Avoiding any chance of damage to other cargo, the aircraft, the ULD, or the handling equipment
   2. Avoiding any risk to any people involved in handling cargo
   3. Allowing special handling labels to remain visible, if not, return to shipper/freight forwarder for repackaging
(n) Verify the use of plant/organic cushioning/absorbing materials such as straw and wood products to ensure that they are not prohibited by quarantine (phytosanitary) restrictions
(o) Verify that the shipment as tendered can be moved using the equipment operating on the booked sector
(p) Check State and operator embargos to ensure there are no restrictions for the routing and/or commodity
(q) Ensure the commodity can be carried on the aircraft type involved.
3.1.2.1 Marking and Labelling
Packages must be checked to ensure that the applicable information is shown. As a minimum requirement, cargo labels must include the following information:
(a) Operator name;
(b) Air Waybill number;
(c) Destination code;
(d) Total number of pieces in the consignment.
Bar-coded labels should be used. When used, must contain the following mandatory information:
(a) Operator name;
(b) Air waybill number;
(c) Destination;
(d) Primary bar code;
Additionally, optional information may be included on the label, for example:
(a) Airline insignia;
(b) Transfer points;
(c) Piece number (piece of pieces);
(d) Weight of this piece;
(e) Total number of pieces;
(f) House waybill number;
(g) Origin.
Ensure that all old labels and marks are obliterated.
Ensure that the labels and marks are fully visible.
Ensure each package bears the shipper and consignee name and address.
Where appropriate packages must be labeled and marked in accordance with the Dangerous Goods Regulations (DGR), Live Animal Regulations and Perishable Cargo Regulations.

3.1.3 Electronic Air Waybill Data Verification
Shipments from freight forwarders are to be delivered “ready for carriage” (see TACT Rules 2.3.2). See also, special cargo acceptance procedures in 3.2.

3.1.3.1 Cross Check of eAWB Data
Verify that the eAWB is correctly completed in accordance with RP1670 and matches the physical cargo.
(a) Air Waybill Number matches
(b) Full shipper and consignee name and address
(c) Nature and quantity of goods:
   1. Description does not indicate the presence of dangerous goods or is accompanied by the term “Not Restricted”.
   2. For other dangerous goods descriptions, e.g. lithium batteries see 3.2.1.
(d) Additional handling information and handling instructions can be accommodated and match product/service.
(e) Other charge codes, e.g. AW or SC, input in accordance with TACT Rules.
If the date presented differs from the cargo tendered, a new electronic message (FWB/XFWB) is required. If instructed to do so in writing by the operator and/or freight forwarder modify the electronic data (FWB/XFWB).
Accept the cargo and confirm the eAWB, e.g. ready for carriage in status message (FSU (RCS)).
Provide cargo receipt to the shipper or freight forwarder, replacing the delivery note or warehouse receipt.
Note: An eAWB is a combination of the FWB data and FSU (RCS).

3.1.4 Paper Air Waybill Verification
Shipments from freight forwarders are to be delivered “ready for carriage” (see TACT Rules 2.3.2). See also, special cargo acceptance procedures in 3.2.
3.1.4.1 Air Waybill Validation
Verify that the AWB is correctly completed in accordance with TACT 6.2 and matches the physical cargo.
(a) Air Waybill Number matches;
(b) Full shipper and consignee name and address;
(c) Nature and quantity of goods:
   1. Description does not indicate the presence of dangerous goods or is accompanied by the term "Not Restricted".
   2. For other dangerous goods descriptions, e.g. lithium batteries see 3.2.1.
(d) Additional handling information and handling instructions can be accommodated and match product/service;
(e) Other charge codes, e.g. AW or SC, input in accordance with IATA Standard TACT Rules;
(f) Modify the air waybill as appropriate;
(g) Accept the cargo and confirm the eAWB, e.g. Ready for Carriage in status message (FSU (RCS)).
Provide cargo receipt to the freight forwarder, replacing the delivery note or warehouse receipt provided under 3.1.2.

3.2 Cargo Acceptance—Special Cargo
Due to the nature of some cargo, specific acceptance procedures apply. In all cases the applicable general acceptance procedures found in 3.1.2, 3.1.3 and 3.1.4 apply.

3.2.1 Cargo Acceptance—Dangerous Goods (DG)
Dangerous Goods must be accepted in accordance with the current edition of the IATA Dangerous Goods Regulations (DGR).
(a) Perform the acceptance check using the IATA, or company checklist for the type of dangerous goods being accepted.
(b) Before accepting or refusing a shipment, answer all the questions on the checklist.
(c) If a shipment fails the checklist (i.e. a “no” on any of the questions), indicate all the reasons (including references where applicable) and return a copy to the shipper or their agent.
   1. A copy should also be retained in a local file
(d) For dangerous goods that do not require a checklist, e.g. dangerous goods in excepted quantities, ensure that the air waybill, when used, reflects the requirements of the IATA Dangerous Goods Regulations (DGR).

3.2.2 Cargo Acceptance—Live Animals (AVI)
Live Animals must be accepted in accordance with the current edition of the Live Animals Regulations Manual.
(a) Check number of items and description matches the information provided in the AWB.
(b) It is recommended to use the live animals checklist found in the LAR, or to develop one for use in-company.
(c) Before accepting or refusing a shipment, answer all the questions on the checklist.
(d) If a shipment fails the checklist (i.e. a “no” on any of the questions), indicate all the reasons (including references where applicable) and return a copy of the checklist to the shipper or their agent.
(e) Ensure that adequate ventilation and air circulation is provided for live animals.

3.2.3 Cargo Acceptance—Perishables (PER)
Perishable cargo must be accepted in accordance with the current edition of the Perishable Cargo Regulations and national legislation.

3.2.4 Time and Temperature Sensitive Healthcare
(a) Time and Temperature Sensitive Healthcare products must be accepted in accordance with the Perishable Cargo Regulations—Chapter 17 (or the Temperature Control Regulations (TCR) and national legislation and national legislation.
(b) Perform the acceptance check using the IATA checklist, or company checklist for the type of dangerous goods being accepted.
(c) Before accepting or refusing a shipment, answer all the questions on the checklist.
(d) If a shipment fails the checklist (i.e. a “no” on any of the questions), indicate all the reasons (including references where applicable) and use the pre-determined escalation process.

3.2.5 Human Remains

3.2.5.1 Coffins (HUM)
(a) Only accept Human Remains if accepted by the operating airline for transport.
(b) Do not accept any Human Remains that are consolidated with any cargo other than other Human Remains.
(c) Verify that the packaging complies with AHM 333 requirements:
   1. Hermetically sealed;
   2. Protected from damage;

3.2.5.2 Cremated
(a) Accept urns or other suitable containers as cargo with no special restrictions.
(b) Make sure that the urn or other container is packed in a neutral outer pack that will protect the urn from breakage and spillage.

3.2.6 Valuable Cargo
Valuable (VAL) Cargo:
(a) Only accept valuable cargo in accordance with operating airline-specific procedures if the operating airline accepts valuable cargo for transport.
(b) Make sure that advance arrangements, such as specialized security staff and vehicles, have been made for handling the valuable cargo.
(c) Make sure that valuable cargo is not consolidated with other cargo.
(d) Make sure that valuable cargo has been packed and secured so that it cannot be tampered with or removed.
(e) Do not communicate any arrangements concerning valuable cargo to anyone except other staff you know are involved with the shipment.
(f) Valuable cargo must not be left unattended.

3.2.7 Outsized and Heavy Cargo
Outsized and Heavy (HEA) Cargo:
(a) Only accept outsized and heavy cargo if accepted by the operating airline for transport.
(b) Check if advance arrangements have been made with the operating airline.
(c) Make sure operating airline-specific procedures for acceptance and handling of OUTSIZED AND HEAVY CARGO are met.

3.2.8 Fragile Cargo
Fragile Cargo:
(a) Only accept fragile cargo if accepted by the operating airline for transport.
(b) Do not accept fragile cargo if the instructions given with the cargo ask for unreasonable/impractical demands or conditions.
(c) Make sure all special instructions are repeated clearly on the packaging.

3.2.9 Cargo Acceptance—Comat
Comat:
(a) Accept all airline materials for transport using the same acceptance processes as detailed previously.

3.3 Mail
For the categories of mail, refer to AHM 350:
(a) Accept airmail using the same acceptance processes as detailed previously using a CN38 form in place of an AWB.
(b) Make sure the mail complies with the requirements of the Postal Services as well as those of the operating airline.

3.3.1 Acceptance
Before the mail is accepted for transport check that:
(a) The mail bags, containers, etc. ("receptacles") are in proper condition showing no signs of prior damage or deterioration;
(b) A routing label is securely and durably affixed to each receptacle;
(c) The labels affixed to the receptacle are legibly completed with routing instructions written in clear print indicating the intended routing and correctly identified airline and IATA airport codes;
(d) All labels and the accompanying documents or electronic information conform with the mail to be transported;
(e) The CN 38, CN 41 or CN 47 Delivery Bill documents accompanying the mail shipment shall be signed as a receipt for the Postal Operator of origin.
(f) Retain two copies of the Delivery Bill at origin and forward the remaining copies with the mail.
(g) Insert two copies of the Delivery Bill in a CN 45 envelope.
(h) Place the envelope in the flight portfolio or other special pouch in which the flight documents are kept, or the CN 45 may be affixed to one of the receptacles in transport.
3.3.2 Irregularities
(a) If mail receptacles contain prohibited items, are improperly prepared or damaged reject the receptacle and modify the documentation accordingly. Complete an incident report and forward to the postal office.
(b) If receptacles are missing adjust the documentation;
(c) If additional receptacles are tendered adjust the documentation accordingly.

3.4 Cargo Forwarding Storage and Preparation for Flight

3.4.1 Storage
Move the cargo by appropriate means to the storage area. ULDs must be supported and transported on equipment suitable for the purpose and meeting the requirements of AHM 911. Only those ULDs equipped with forklift packets may be moved using forklifts and placed on the ground. Refer to AHM 427.
Put the cargo in the storage area as per local procedures, ensuring that:
(a) Dangerous goods are stored as per the current IATA Dangerous Goods Regulations (DGR);
(b) Live animals are placed in a quiet, well-ventilated designated area, protected from adverse weather conditions (refer to LAR);
(c) Temperature sensitive items are stored at the correct temperature (refer to PCR) including temperature controlled containers (e.g. cooltainers);
(d) Human remains in coffins are not stored next to food/live animals;
(e) Perishable cargo is separated from other non-compatible cargo in accordance with the Perishable Cargo Regulations (PCR);
(f) Valuable cargo is stored in a secured place and in accordance with operating airline requirements;
Make sure that once cargo has been put in the storage area, its location is recorded and that all the information, as well as the location of the cargo, is correctly communicated for ease of retrieving the cargo when required.

3.4.2 Preparation for Flight
(a) Receive all documentation and instructions regarding the cargo for the specific flight.
(b) Move the cargo by appropriate means, either:
   1. Directly to the flight;
   2. To the secure flight holding area; or
   3. To the area where the cargo is being loaded for the flight, whichever is applicable.
(c) ULDs must be supported and transported on equipment suitable for the purpose and meeting the requirements of AHM 911. Only those ULDs equipped with forklift packets may be moved using forklifts and placed on the ground. Refer to AHM 427.
(d) Make sure all documentation and special instructions necessary for load control and NOTOC purposes are recorded and passed on as required.
(e) Collect empty ULDs from the ULD storage area if the aircraft uses ULDs. Complete the ULD control documentation for receipt of the ULD. Check that:
   1. The ULD (including any nets, doors etc.) is fit for flight before accepting the ULD–use ULD Damage Limits Notice as a guide if this is fitted to the ULD. Ref. AHM 425 and UTM;
   2. The ULD is correct for the type of aircraft used for the flight;
   3. Nets, ropes, straps, etc. are not in a position to drag on the ground, get jammed in rollers, ball-mats, or wheels.
(f) As required by the type of cargo, lay any load-spreading materials on the aircraft pallet or aircraft container floor.
(g) As required by the type of cargo or operating airline requirement, lay any approved waterproofing, absorbent and/or insulating material on the aircraft pallet or on the aircraft container floor. For “wet” cargo, allow a 1 meter turn-up of the waterproof material placed under each side of the cargo.
(h) Retrieve the stored cargo from the storage location and/or directly from the cargo acceptance area.
(i) Make sure there is no damage and/or tampering of any dangerous goods or other cargo:
   1. Do not load any dangerous goods shipment that is leaking or damaged.
   2. Do not touch damaged or leaking shipments with dangerous goods, or suspected to contain dangerous goods, until the hazard is known.
(j) Replace any labels and/or ULD tags that have been lost, have become unreadable or have become detached after acceptance. In the case of dangerous goods, the replacement labeling and tagging must be completed in accordance with the information provided on the Shippers Declaration for dangerous goods.
(k) While gathering the cargo in preparation for the flight, check that:
   1. Separation of incompatible commodities is maintained at all times;
   2. Where applicable any maximum quantity limitations of commodities is maintained;
   3. Adequate ventilation and air circulation is provided for live animals and perishables;
   4. Any items labeled “Cargo Aircraft Only” are loaded only for freighter aircraft flights.

(l) Do not load any leaking “wet” cargo.

3.4.3 Building Unit Load Devices (ULD’s) and Prepare Loose Cargo

3.4.3.1 Weight Distribution
(a) The weight of the cargo is evenly distributed over the base surface area.
(b) The load of dense cargo is spread over a wider area.
(c) Live animals are not loaded in direct contact with the base of the pallet.
(d) Cargo is supported and secured to prevent shifting, rolling, toppling, crushing, or breaking.
(e) The heaviest items are positioned lowest in any stacks of cargo.
(f) Heavy items are not placed in the “overhang” portion of a container.
(g) Partially filled containers have straps or nets to secure the cargo.

3.4.3.2 Securing
(a) Dangerous goods are properly secured.
(b) If the package size is too small to be secured by the cargo net; make alternative arrangements to secure the goods on the flight.
(c) Coffins must always be secured and loaded horizontally, preferably on an aircraft pallet and not next to food or live animals.

3.4.3.3 Special Cargo
(a) Flowers are separated from fruit and vegetables.
(b) For live animals, use adequate ventilation and air circulation.

3.4.3.4 Container/Pallet Close Out
(a) All doors must be closed properly and attached/latched at all the points.
(b) The correct contour must be used applicable to the aircraft type used for the flight.
(c) Where applicable, only an approved waterproof and/or fire retardant material can be used to cover palletized cargo, and the cargo net must be on the outside of any such covering.
(d) Aircraft containers must not be wrapped on the outside—all waterproofing is to be done by lining the inside of the container and/or wrapping the cargo itself.
(e) All straps and nets must be serviceable—use ULD Damage Limitations Notice (if available) on nets, pallets and containers to help with this assessment; and do not “fix” a net or strap with non-approved materials and/or fittings.
(f) Nets and straps must not be over-tensioned so that cargo is damaged and/or the ULD is twisted.
(g) The tension of the nets and straps must be evenly applied around the edge of the ULD.
(h) Make sure that all ULDs have the correct tags attached/put into the ULD tag pocket.
(i) Weigh and record the weight of each ULD and loose cargo once it is prepared. In the event of a weight discrepancy the ULD should be reweighed.
(j) Communicate all information necessary for each ULD loaded to all parties. Example, Load Control, Special Instructions for NOTOC, ULD Control.
(k) Move the loaded ULDs to the secure flight holding area, obeying all special instructions related to the cargo on that ULD such as temperature control, proximity to other commodities etc. The ULDs should either be transferred to holding area roller beds or remain on the ULD transport trolleys. Whenever possible, ULDs should be stored in a sheltered area during adverse weather condition.
(l) Structural weight limitation of ULDs and Aircraft type must be obeyed.
(m) Also refer to AHM chapter 3 & 4 for additional instructions.

3.5 Information and Data Transmission to Load-Control
Capturing accurate data about the shipment is vital for the smooth and safe operation of air cargo transport. Without the correct data being communicated in a timely manner to the correct people, the shipment will not progress through the air transport system.
3.5.1 Load-Control must receive the following information:

(a) ULD identification;
(b) ULD gross weight;
(c) ULD load information codes (e.g. X = empty ULD);
(d) Special handling and hazardous code (mandatory) and complementary information, for example:
   1. AVI/species
   2. PER/temperature
   3. OHG/length & direction
   4. ULD contour (where applicable);
(e) Bulk load: pieces and weight (where applicable);
(f) Airport of unload.
(g) Cargo NOTOC as per AHM 381 (where applicable)
(h) Make sure all documentation required for the load control process, as well as for the filing and recording, is forwarded to the correct office(s)/staff for their action.

3.6 Irregularities

Cargo can be damaged, tampered, pilfered or missing before, during and after transportation. It is important to deal with this problem as soon as it is noticed so that it can be resolved and any possible risks minimized.

If at any stage of the cargo handling process, cargo is damaged, missing or pilferage is noted; contact the Manager/Supervisor immediately to inspect the cargo, its packaging and/or the ULD.

If it is confirmed that cargo is damaged, missing or pilferage is noted:

(a) Start all appropriate action, including any emergency action necessary in the case of damaged Dangerous Goods.
(b) Assess and document damage.
(c) As applicable, either allow the shipment to proceed for flight or remove from aircraft/flight.
(d) Inform and request feedback from all parties concerned, including customer airline.
(e) Monitor and record all actions and communications until resolution is achieved.
(f) In all cases, a Cargo Irregularity Report must be completed.

3.7 Cargo Surface Transportation and Transfer

When the cargo has to move between ground facilities and the aircraft, or between aircraft, apply the following:

3.7.1 Transport from Facility to Aircraft

(a) Receive all documentation and instructions for the specific flight.
(b) Make sure that any vehicles and equipment that you use are serviceable, before collecting loose cargo and/or build up pallet from the flight holding area.
(c) Inspect all cargo to be moved to the flight(s). Check that:
   1. The cargo you intend to transport is the correct cargo for the flight(s).
   2. The cargo is undamaged and has no signs of being tampered with—inform Supervisor of any abnormalities or deal with as per IGOM 3.6: Cargo Damage and Discrepancies.
   3. All ULDs are fit for flight. Ref. AHM 425 and UTM.
   4. No nets, ropes, straps, protective materials, etc. are in a position to drag on the ground, get jammed in rollers, ball-mats or wheels.
   5. All built-up cargo is safe to move and will not shift, roll, or topple.
   6. All dollies comply with AHM 911, are serviceable and all latches/locks/stops are engaged to keep the ULD on the dollies.
   7. All loose cargo is securely stowed and all handling instructions are obeyed, for example, “This Side Up”, Fragile etc. and separation of incompatible commodities is maintained at all times.
(d) Make every effort to protect cargo from adverse weather conditions by using a cover and avoiding the use of open carts.
(e) Comply with any limitations regarding the maximum number of dollies in a “train of dollies”, and/or the maximum load on a vehicle. Do not overload.
(f) Start the loaded vehicle(s) moving and as soon as it is safe to do so, perform a brake and steering check to make sure the loaded vehicle(s) is/are capable of stopping and turning. Do not continue with the trip if you are in any doubt about ability to stop and steer the vehicle(s).
(g) Drive particularly smoothly when live animals form part of the load.
(h) Obey all applicable driving rules and regulations in force during the trip, for example, speed-limits.

(i) Throughout the trip, whenever safe to do so, observe the cargo to ensure it is still on the dollies and that no stacks of cargo have collapsed or toppled. If there is something wrong, either stop, or if possible, pull out of the roadway and stop. Either correct the problem and continue, or call for assistance. If the pallet needs to be rebuilt, only trained staff shall perform the rebuilding.

(j) Slow down and carefully approach the aircraft. Stop before entering the demarcated aircraft parking area, making sure that all dollies are clear of the main roadways and aircraft maneuvering areas.

(k) Wait for further instructions from aircraft loading staff before entering the aircraft parking area. Do not leave loaded vehicle(s) unattended with the engine running and/or held only by the hand-brake.

(l) Make sure that the correct cargo is delivered to the correct flight.

(m) Inspect all cargo delivered to a flight with the aircraft loading staff, making sure no damage has occurred during the transport process. If damage has occurred, deal with it as per IGOM 3.6: Cargo Damage and Discrepancies.

(n) Hand over all documentation, pouches and special instructions for that flight only, to the aircraft loading staff, in the cargo hold and/or to cabin staff as per operating airline procedures.

3.7.2 Transport from Aircraft to Facility/Other Aircraft

Inspect all cargo collected before moving it. Check that:

(a) The correct cargo is being collected;

(b) The cargo is undamaged and has no signs of being tampered with—inform Supervisor and unloading staff of any abnormalities or handle as per IGOM 3.6: Cargo Damage and Discrepancies;

(c) All ULDs are serviceable. Ref. AHM 425 and UTM;

(d) Nets, ropes, straps, protective materials etc. are not in a position to drag on the ground, get jammed in rollers, ball-mats, or wheels;

(e) All built-up cargo is safe to move and it will not shift, roll, or topple;

(f) All dollies are serviceable and that all latches/locks/stops are engaged to keep the ULD on the dollies;

(g) All loose cargo is securely stowed and all handling instructions are obeyed, for example, “This Side Up”, Fragile etc. and that separation of incompatible commodities is maintained at all times.

Make sure all documentation, pouches and special instructions are collected from unloading staff.

3.8 Cargo Breakdown, Delivery, in Transit and Transfer

3.8.1 General

Unitized cargo (shipper-built ULDs) is not normally unpacked (broken down) in the facility and is usually delivered along with the ULD to the consignee. It may or may not be stored in the facility while waiting for collection.

Other cargo loaded (built) in ULDs will be unloaded (broken down) from the ULD and either stored or delivered directly to the consignee.

Loose cargo may be stored or delivered directly.

3.8.2 Breakdown of Cargo

Inspect the cargo and ULDs delivered, together with the transport staff, and check for damage/tampering. If there is any evidence of damage/tampering, handle as per IGOM 3.6: Cargo Damage and Discrepancies.

Move the cargo into the facility and proceed as follows:

3.8.2.1 If the Cargo is Loaded in ULDs:

Separate Shipper-built ULDs from the ULDs that must be broken down.

3.8.2.2 For Shipper-Built ULDs, either:

(a) move these ULDs for immediate delivery to the delivery area only if documentation and customs permit delivery, or;

(b) move other shipper-built ULDs to the appropriate storage area making sure that all special instructions, separation distances between incompatible commodities, and customs regulations are obeyed. Record the storage location and communicate this information so that the cargo can easily be retrieved.

3.8.2.3 For all ULDs Except Shipper-Built ULDs:

Record the storage location and communicate this information so that the cargo can easily be retrieved.
3.8.2.4 When the ULD must be Broken Down:
(a) Move the ULDs to the unloading area.
(b) ULDs shall not be located/stored directly on the floor.
(c) Ensure sufficient ventilation before entering a ULD containing dry ice.
(d) Open container doors/release nets and straps, taking due care of any possible risk of the cargo falling or moving. Do not cut ropes, nets and straps. Do not detach nets that are permanently attached to an aircraft pallet.
(e) Unload the ULD using appropriate equipment so as not to damage either the cargo or the ULD.
(f) Check the cargo unloaded from the ULD against the documentation provided to make sure all cargo that was loaded is received. Notify the operating airline of any discrepancies (shortages and overages) and complete the required incident reports.
(g) Check that the cargo received is undamaged/has not been tampered with. See IGOM 3.6: Cargo Damage and Discrepancies.
(h) Move the cargo away from the unloading area and store in the appropriate storage location making sure that all special instructions, separation distances between incompatible commodities, and customs regulations are obeyed.
(i) Record the storage location and communicate this information so that the cargo can easily be retrieved.
(j) Dispose of/recycle/send for reuse packaging and supporting materials collected as a result of the unpacking process.
(k) Collect all straps and arrange for these to be returned either to the owner (as indicated by markings on the straps) or sent to the cargo forwarding area for reuse.
(l) Spread pallet net(s) flat and neatly in the centre area of the empty aircraft pallet, making sure that no part of the net or any ropes hang over the edge of the pallet where they can get caught in transport/transfer equipment.
(m) Either close and latch the aircraft container door(s), or secure the aircraft container door(s) in the open position.
(n) Remove any labels, tags, etc. from the ULD(s).
(o) Damaged ULDs shall be identified as unserviceable and isolated from serviceable ULDs before being sent for repair
(p) Arrange for the empty ULDs to be:
   1. returned to the ULD storage facility;
   2. sent for cleaning and disinfecting if contaminated from previous shipment, or used to transport live animals, meat/fish; or,
   3. sent to the forwarding area for reuse.
(q) Complete the documentation or update the computer system as required to record the transfer of the ULD out of the receiving section/location.

Note: ULDs must be supported and transported on equipment suitable for the purpose and meeting the requirements of AHM 911. Only those ULDs equipped with forklift packets may be moved using forklifts and placed on the ground. Refer to AHM 427.

3.8.2.5 If the Cargo is not Loaded in ULDs
(a) Unload the cargo from the dollies or vehicle, using appropriate equipment and taking due care of any possible risk of the cargo falling or moving.
(b) Check the cargo unloaded against the documentation provided to make sure all cargo that was loaded is received. Record shortages and overages and complete the required incident reports.
(c) Check that the cargo received is undamaged/has not been tampered with.
(d) Move the cargo away from the unloading area and store in the appropriate storage location making sure that all special instructions, separation distances between incompatible commodities, and customs regulations are obeyed.
(e) Record the storage location and communicate this information so that the cargo can easily be retrieved.
(f) Dispose of/recycle/send for reuse packaging and supporting materials collected as a result of the unpacking process.

3.8.3 Cargo Delivery
The delivery of cargo to the consignee is initiated by either a pre-arrangement (with accompanying documentation at the time of collection) or the presentation of the correct documentation to a cargo facility staff member responsible for delivering cargo.
Review the documentation provided and check that:
(a) The person collecting the cargo is authorized to do so;
(b) All necessary documentation has been completed;
(c) Any customs clearances have been completed;
(d) All fees and charges have been paid or accounted for.
Collect, or arrange for the specific cargo to be collected, from the storage area and/or directly from the cargo receiving area. As far as the facilities allow:

(a) Maintain the state of the cargo in accordance with any special instructions such as temperature;
(b) Maintain separation distances between incompatible commodities.

Inspect the cargo with the person collecting the cargo, checking that:

(a) It is the correct cargo;
(b) There are the correct number of items (pieces);
(c) The cargo is in good order (condition) and there are no signs of pilferage.

If the cargo is being delivered as a Shipper-built unit load in a ULD, ensure the following:

(a) Inspect the ULD (including nets) with the person collecting the cargo.
(b) Complete the documentation, or enter in the computer system, all information required on the ULD Transfer (LUC) form and record any damages to the ULD on the LUC document.
(c) The LUC must be signed by the person collecting the cargo and the ULD, or the transfer of the ULD must be entered into the computer system.
(d) Obtain all signatures required (proof of delivery), hand over and retain the correct documentation as required by the local procedures.
(e) Move the cargo as per local procedures and load onto vehicle that will take the cargo from the facility.
(f) Vehicles transporting ULDs must be equipped with roller or ball mats to allow for moving the ULD on the roller-bed, as well as appropriate ULD securing devices. Ref. AHM 427.
(g) Update the database to record the delivery of the cargo and the ULD if applicable.
(h) Make sure that temperature sensitive goods which have been prepared for delivery are immediately collected by consignee.
(i) If not delivered, immediately move the goods back to the appropriate storage area as per Special Instructions.
Chapter 4: Aircraft Handling Procedures

This chapter provides procedures for aircraft handling, including safety procedures.

4.1 Ramp Safety in Aircraft Handling

4.1.1 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, employees 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.

If you see or cause any aircraft damage, you MUST report it. Refer to the operating airline's policy regarding reporting of aircraft damage.

4.1.2 General Ramp Safety

4.1.2.1 Danger Areas
There is a particular risk of blast damage or injury from an aircraft engine's exhaust or intake. The risk is further increased if for any reason an aircraft stops and then applies the additional thrust required to “break away” and continue the manoeuvre.

Vehicles and personnel must remain clear of aircraft danger areas when aircraft engines are running and/or the anti collision lights are on.

(a) In order to prevent incidents and accidents caused by aircraft engines, you must never position yourself or equipment in the following critical areas before or during aircraft departure and arrival:
   1. Engine Intake Area
   2. Engine Blast Area
   3. Propeller Rotation Area (where applicable)

Note: The length of these areas vary for each aircraft type based on whether the engines are at IDLE or BREAKAWAY thrust. Refer to each aircraft type specific manual for applicable distances.

Danger: Ground personnel and/or loose equipment must stay clear of the intake and blast areas.

4.1.2.2 Engine Intake Area
(a) Make sure the engine intake area is clear:
   1. at arrival, until the engines have been switched off and are spooling down;
   2. at departure or just before pushback;
   3. at all times while engines are running.
(b) It is forbidden to pass through the blast area while the engines are running.

Refer to the operating airline's GOM for distances applicable to the specific aircraft type involved in the operation.
Sample Engine Danger Area A330-300 and A330-200.
4.1.2.3 Equipment Restraint Area & Equipment Restraint Line

The Equipment Restraint Area (ERA) is defined as 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. The ERA must be free of obstructions and Foreign Object Debris (FOD) before and during aircraft arrival and departure.

4.1.2.4 FOD—Foreign Object Debris

Foreign Object Debris (FOD) is a general term which applies to all loose objects which are a danger to the safety and integrity of an aircraft and which, therefore, must not be left in any area where they would constitute a hazard.

Every individual has a responsibility to ensure that the risk of damage to aircraft from FOD is minimized. All FOD must be removed and properly disposed of as soon as it is discovered.

Often the presence of FOD is due to the carelessness of personnel working airside and their lack of understanding of its consequences, or the movement of FOD into airside locations during high winds.

Examples of FOD:
- Plastic and paper, bags/sheets, rags
- 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 luggage wheels, etc.

Caution:
Results of FOD:
Foreign object debris may be ingested into aircraft engines causing damage leading to engine failure. This is especially critical if it occurs in flight, particularly during the take-off phase.
In addition, damage caused by FOD can occur to tires, the undercarriage, control systems and other parts of the airframe. All such damage could lead to inflight failures.
FOD Checks
The following checks must be conducted prior to any aircraft movement or servicing operation:
(a) Check ground equipment staging and parking areas in proximity to area of operation.
(b) Ensure routine checks are made of ground equipment (including floors of enclosed cabins).
(c) In earp areas ensure that anything carried in or on a vehicle is secured.
(d) Before aircraft arrival, conduct a FOD walk of the aircraft parking stand removing all FOD found.
(e) Pick-up and dispose all FOD in designated garbage bins, where provided.

4.1.3 Safety Instructions for Operating Motorized Vehicles on the Ramp

4.1.3.1 General Safety Instructions for Ground Support Equipment (GSE)
Apply these procedures whenever operating GSE on the ramp.
Only drive or operate GSE if you are trained and authorized for that specific equipment type.

Caution:
When operating equipment, check the equipment contact zone for possible aircraft damage and immediately report any damage found.
Use all safety devices fitted on GSE (e.g. bumpers, handrails, stabilizers, etc.) during aircraft handling and servicing.
Ensure protective rubber bumpers ARE NOT compressed against aircraft fuselage.

4.1.3.2 Basic Operating Requirements for GSE
(a) Check all GSE involved in aircraft handling at the start of a shift (at least once per day), in particular the “parking” brakes, rubber protective bumpers, safety systems and all other proximity sensors.
(b) Perform a vehicle/equipment walk around check prior to its use.
(c) Apply parking brakes and place the gear selector in the “PARK” or “NEUTRAL” position on all GSE when it is parked or positioned.
(d) When positioning GSE, make sure: that clearance is kept between all GSE and the aircraft to allow vertical movement of the aircraft during the entire ground handling process—preventing contact between the aircraft and equipment.
(e) Do not carry extra personnel during GSE movement without an approved seat—apply the “no seat—no ride” principle.
(f) Do not operate vehicles or equipment while using hand-held portable electronic devices.
(g) After positioning equipment on the aircraft, raise all safety rails on conveyor belts, loaders and other elevated devices—except where restricted by aircraft type.
(h) Do not leave any vehicle unattended with its engine running.
(i) If equipped with stabilizers, ensure they are deployed before operation.
(j) Do not drive GSE with lifting devices in the raised position, except for final positioning of the GSE onto the aircraft.
(k) Do not allow any GSE such as tractor, pallet transported, baggage/cargo carts and dollies to move or be positioned under the aircraft fuselage.
(l) Do not move any GSE, including passenger boarding bridges, towards the aircraft unless all of the following criteria are met:
1. Aircraft has come to a complete stop;
2. Engines have been switched off and are spooling down;
3. Anti-collision lights are switched off;
4. Wheel chocks are positioned;
5. Ground/Flight Crew communication has been established, and clearance has been given, if applicable.

Note: The above does not apply for ground power units (GPU).

4.1.3.3 Non-Motorized GSE
(a) When parked, all non-motorized GSE must have brakes set or chocks in place when not connected to motorized vehicles.
(b) ULDs must be secured on dollies (or trailers/trucks) using the appropriate restraints.
(c) Pallet and container dollies may only be towed with the turntables in the locked position (“straight ahead”), and rotated only when at the loader platform.
4.1.3.4 Passenger Boarding Equipment

(a) The operator of the passenger boarding bridge must be trained and authorized to operate the boarding bridge.

(b) When positioning equipment at doors and driver/operator vision is restricted, use a guide person.

(c) Make sure the guide person is in a position to accurately judge clearances and communicate signals to the driver/operator.

(d) Stop immediately if visual contact with the guide person is lost. A guide person is not required if the equipment is fitted with systems (e.g. sensors) that enable the operator to accurately judge clearances and properly position it to and from the aircraft.

(e) Make sure the equipment does not contact the wing root leading edge fairing that extends under certain cabin access doors and any other sensors or fairings.

(f) Make sure any sliding rails and canopies on the equipment are fully retracted during positioning, and fully extended only once the equipment is in position.

(g) If the equipment’s sliding rails cannot be extended until the door has been opened, make sure they are extended immediately upon door opening.

(h) If the boarding equipment is not equipped with an auto-level feature, position the floor of the boarding device 6 in/15 cm below the door sill. This reduces the possibility that the aircraft door will rest on the boarding device in the event that the aircraft settles during loading and unloading.

(i) Report any malfunction of the bridge to the appropriate person/authority.

1. Check that the bridge is serviceable before use.
2. The bridge must be fully retracted before aircraft arrival and departure.
3. The safety barrier must be in place whenever the bridge is not at the aircraft.
4. Make sure the movement path is clear before moving the bridge.
5. Only the bridge operator shall be in the bridge while it is moving.
6. Move the bridge slowly towards the aircraft until the bridge touches the aircraft—avoiding any aircraft sensors.
7. Keep sufficient clearance between the bridge and the underside of the cabin door or as directed by the cabin door markings.
8. Engage any safety systems and auto-leveler features if applicable. If the bridge is not equipped with an auto-leveler, the bridge must be attended by an operator whenever it is positioned at an aircraft.
9. Close the cabin door before removing the bridge.
10. When positioning is complete, the bridge controls must be isolated as applicable.

4.1.3.5 Passenger Stairs

(a) Check that the passenger stairs are serviceable before use.

(b) Check that the walking surfaces are safe for use.

(c) Passenger stairs must be outside the ERA before aircraft arrival and departure.

(d) Make sure the movement path is clear before moving the passenger stairs.

(e) Move the passenger stairs slowly towards the aircraft, avoiding any aircraft sensors, until either the protective bumpers just touch the aircraft or the equipment’s proximity sensors stop the movement.

(f) Keep sufficient clearance between the passenger stairs and the underside of the cabin door, or as directed by the cabin door markings.

(g) 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 must be monitored and adjusted as required.

(h) Deploy stabilizers if fitted.

(i) Extend side rails after the cabin door has been opened.

(j) Make sure passenger stairs are positioned so that the cabin door can be used as an unobstructed escape route in the event of an emergency/evacuation.

(k) If the passenger stairs are towed, disconnect them from the tractor and manually position them on the aircraft.

(l) Close the cabin door before removing the passenger stairs.

(m) After the cabin door has been closed, confirm there is no staff on the stairs prior to retracting stabilizers.

(n) If the stairs are not positioned on the aircraft, they must be pulled back sufficiently to allow the deployment of slides in case of emergency.

Danger:
Cabin doors shall only be in open position if there is any GSE or boarding device positioned at the door. Cabin doors may never be opened without any equipment positioned at the aircraft. There is a risk of falling while operating cabin doors. Slide deployments can be fatal. If an armed door begins to open, do not attempt to hold the door, as you risk being seriously injured or killed by doing so.
4.1.3.6 Aircraft Loading Equipment

Belt Loader
The following precautions must be taken when operating a belt loader:
(a) The boom of the belt loader must never be positioned inside the cargo hold of any aircraft.
(b) Position and remove a belt loader in a straight line with the cargo hold door at a 90 degree angle to the aircraft fuselage.
(c) Ensure the boom is clear of the aircraft or other obstacles before making a turn.
(d) The rubber bumpers on a conveyor belt loader must NEVER make contact with the aircraft. The minimum distance to be maintained at all times is 1 in/2.5 cm from the fuselage.
(e) Always raise side handrails as soon as belt loader is positioned. Make sure they do not touch the aircraft fuselage.
(f) Hand rails may be lowered to accommodate large items during loading and offloading.
(g) Do not stand or walk on the belt when a hand rail is lowered.
(h) Specially designed belt loaders (e.g. Ramp Snake or Powerstow) require the equipment to be positioned inside the cargo hold.
(i) Do not sit or stand on a conveyor belt while it is in operation (up or down).

ULD Loader
(a) Check that the ULD loader is serviceable before use.
(b) Check that the walking and loading surfaces are safe for use.
(c) Lower both platforms during maneuvering of a ULD loader.
(d) The ULD loader must be outside the ERA before aircraft arrival and departure.
(e) Make sure the movement path is clear before moving the ULD loader.
(f) Never drive a ULD loader underneath the wing of an aircraft.
(g) Move the ULD loader slowly towards the aircraft, avoiding any aircraft sensors or wing canopy fairings.
(h) If visibility is limited or the aircraft type requires the ULD loader to be in close proximity to the fuselage or wing trailing edge, then a guidance marshaller must be used.
(i) ULD loaders must NEVER make contact with the aircraft. Position the ULD loader no closer than 2 in/5 cm or until the proximity sensors stop the movement (if equipped).
(j) Do NOT open/close aircraft cargo compartment doors while standing on a ULD loader. Use technical steps or a belt loader with a raised side safety rail, and deploy stabilizers if equipped. (Not applicable to main deck cargo doors).
(k) 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 must be monitored and adjusted as required.
(l) Deploy stabilizers if fitted and raise safety rails.
(m) Constantly monitor the parts of the aircraft that could come into contact with the loader (e.g. edge of cargo hold opening, aircraft cargo door, control panel doors, fairings on fuselage and wings).
(n) Adjust the loader’s front platform during loading as required when the aircraft’s level varies as the load changes.

4.1.3.7 Ground Support Equipment Safety Driving and Parking Inside ERA

Apply the following precautions when driving or parking Ground Support Equipment (GSE) within the ERA:
(a) Make a minimum of one complete stop with all motorized vehicles/equipment prior to entering the ERA.
   1. Conduct a “Brake Check” or “Safety Stop” by coming to a full and complete stop to confirm the serviceability of the brake system on the vehicle and to test the apron surface.
   2. This action MUST be carried out even if there is no Equipment Restraint Line marked on the apron.
   3. This stop must be conducted at a distance of no less than 5 m/15 ft from the aircraft.
(b) Do not drive GSE faster than walking speed.
(c) Maneuver GSE carefully in order to prevent personnel injury and/or aircraft damage.
(d) When reversing vehicles or equipment with limited rear-view visibility inside the Equipment Restraint Area, make sure you are:
   1. guided by an agent using standard IATA signals, and/or
   2. assisted by means of a rear-view video or mirror.
(e) Any moving vehicle that is not positioning at the aircraft must stay outside the operational safety buffer zone.
(f) Do not drive or park under the aircraft fuselage and/or wing.

Exceptions:
(a) GSE and vehicles needed for aircraft servicing (e.g. aircraft refueling truck, water servicing truck, toilet servicing truck).
(b) On stations or with aircraft types where the aircraft/stand configuration makes it necessary to tow dollies under the wing during (off)loading of the aft cargo hold of a wide body aircraft. In such situations: Tow only dollies under the rearmost part of the right wing only.
4.2 Potable Water Servicing

Water service must not be performed by staff that has already performed toilet servicing during the same shift.
Only uplift water if authorized by the operating airline.
Replenish the aircraft tank according to the operating airline instructions—any deviation must be reported to the supervisor or airline representative.

4.2.1 General Hygiene Precautions
To perform water servicing you must:
(a) wear clean clothing;
(b) thoroughly wash your hands using soap before starting water servicing:
1. Do not fill the potable water service unit from the same water source as the toilet service unit.
2. Do not park the potable water service unit and the toilet service unit in the same area.
3. Do not service the toilet and water on the aircraft at the same time. Certain aircraft types are exempted from this rule.
(For exceptions, refer to airline GOM)

4.2.2 Potable Water Units Servicing Procedure

4.2.2.1 Filling Aircraft Water Tanks

(a) Fill the aircraft water system as close to the departure time of the aircraft as possible.
(b) Before connecting the aircraft filling hose to the aircraft, flush the hose.
(c) Each aircraft type has specific requirements for filling and draining. Refer to the operating airline’s GOM for specific servicing instructions.

Note: When the filling hoses are not in use, the nozzles or connectors must be protected from contamination either by the use of appropriate covers or by immersing them in receptacles containing chlorinated water.

4.2.2.2 Water Servicing During Freezing Conditions

The following actions must be followed to prevent freezing of the water in the aircraft water tanks and lines during freezing conditions:
(a) Drain the aircraft water tanks if instructed by the operating airline as per the operating airline procedures.
(b) Ensure the fill line is fully drained before closing the cap to prevent freezing of fluid inside.

Caution: Keep aircraft cargo doors closed to prevent water lines from freezing when the cargo compartments are not being loaded or offloaded. Do not attempt to remove the frozen substance in the fill lines or connections or on the service panels. Contact maintenance immediately.

4.3 Toilet Servicing

4.3.1 Introduction
The complete procedure for servicing the aircraft toilet waste tank consists of the following 3 steps:
(a) Draining of the waste tank(s);
(b) Flushing of the waste tank(s);
(c) Adding an amount of pre-charge and/or a concentrated deodorant precharge product—as applicable.

Caution:
Toilet fluids are corrosive. Prior to servicing, inspect the toilet servicing panel on the aircraft for signs of leakage. If any horizontal blue streaks are observed, the blue streak must be cleaned prior to servicing. After cleaning, look again for signs of leakage. Blue ice build-up in higher altitudes may influence airworthiness. In case of a possible leak, immediately inform the airline representative, ground engineer, or advise the flight crew.
4.3.2 Hygiene Precautions
(a) Wear heavy rubber gloves, full face protection and protective clothing against harmful wastes when performing toilet servicing.
(b) Do not park the toilet service unit in the same area as the water service unit nor at the water filling point.

Caution:
Once an agent has performed toilet servicing on an aircraft, the same agent CANNOT perform water servicing during the same shift.

4.3.3 Toilet Servicing Procedure
Each aircraft type has specific requirements for toilet servicing and the amount of precharge and/or concentrated deodorant precharge product. Refer to the operating airline’s GOM for aircraft type specific instructions for more details.

4.3.3.1 General
(a) Prior to opening a toilet service panel, check for stains around the panel.
(b) While opening the service panel, stay clear and watch for signs of leakage.
(c) Stay clear of the drain fitting cap while opening, and watch for signs of leakage.
(d) If required for a recirculation toilet, stir up the waste tank contents with an appropriate stick.
(e) Make sure the drain hose Y-fitting coupling is connected correctly, before a drain valve handle is pulled.
(f) Empty the waste tank(s).
(g) Flush the waste tank(s) twice and empty them again.
(h) Precharge the tank(s) with the correct quantity of water and disinfectant—as applicable.
(i) Fill the waste tank(s) with the correct amount of water and concentrated deodorant precharge packets or pre-mixed fluid as applicable. For aircraft equipped with a conventional toilet system, fill the waste tank(s) with the correct amount of water and precharge, or concentrated deodorant precharge
(j) After servicing ensure that there are no leaks at the drain fitting cap and the end of the drain hose Y-fitting coupling.
(k) Close the nozzle tightly in order to prevent the accumulation of ice during flight and wipe off residual water and disinfectant.
(l) Check for possible leakage.
(m) After servicing close and latch the fitting caps and service panel door.

Note: Inform aircraft maintenance or flight crew, if:
(a) Fluid leakage is observed.
(b) The drain valve will not open or the waste tank cannot be drained.
(c) Report any spillage of waste to the supervisor.

4.3.3.1.1 Draining
(a) Drain the aircraft waste system into the waste tank of a Toilet Service Unit.
(b) Observe the waste drain hose during draining to confirm that the waste tank is completely emptied. The hose will also vibrate for a few seconds as the contents of the waste tank pass into the waste tank of a Toilet Service Unit.

Note: Drain the waste tanks one at a time for optimal results.

4.3.3.2 Servicing During Freezing Conditions
Take the following measures to prevent freezing of the fluid in the aircraft toilet tanks and lines during freezing conditions:
(a) Drain the waste tanks if the aircraft is parked in the open for several hours without electrical power supply and the temperature is, or is expected to be, below the freezing point, as per the operating airline procedure.
(b) Fill the aircraft toilet system only after electrical power supply has been restored, and as close to flight departure time as possible.
(c) Ensure the fill line is fully drained before closing the cap to prevent freezing of fluid in the fill line.

Caution:
Do not attempt to remove the frozen substance in the fill lines or connections or on the service panels. Contact maintenance immediately.
4.3.3.3 Inoperative Toilet Systems
If defects of the toilet system prevent regular servicing:
(a) Ask qualified technical staff - if available - for assistance (e.g. removal of panels, etc.). If no technical staff is available, inform the Flight Crew or an airline representative.

4.4 Safety During Fueling/Defueling

4.4.1 Fueling Safety Zone
The Fueling Safety Zone (FSZ) is defined as an area of at least 3 meters in any direction from the centre-point of all fuel vent exits, refueling plugs, aircraft refueling ports, fuel hydrants, fuel hoses and fueling vehicles. This distance may be further increased as required by local airport or civil aviation regulations.

Example of safety zone for A320
Within the Fueling Safety Zone (FSZ), all personnel must ensure that they:

(a) Do NOT smoke;
(b) Do not use ANY hand held portable electronic devices, including cell phones, portable music players, portable game units or an earpiece or headset;
(c) Only use company issued and approved radios, radio telephones, pagers, torches, lamps and lighting systems. Battery chargers must not be operated;
(d) Enter the FSZ only when required by your present job task responsibility;
(e) Assume that fueling is taking place anytime a fuel vehicle is on the stand during aircraft servicing and fuel hoses connected;
(f) Do not leave vehicle engines running unnecessarily;
(g) Position all GSE and vehicles so they do not obstruct the fueling vehicles’ escape route;
(h) Do not allow any passengers to enter the FSZ;
(i) Avoid the use of motorized GSE within the FSZ;
(j) Do not park any equipment in the FSZ;
(k) Ensure fuel hoses are protected and all ground equipment is kept a minimum of 1 metre (3 ft) away from any fuel hose on the stand that is connected between a fuel truck and an aircraft.

4.4.2 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 of the spillage.
(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 reduce the risk of ignition.
(f) Secure the area 15 metres from the contaminated area.
4.4.3 Refueling/Defueling with Passengers on Board

When fueling with passengers onboard you must:
(a) keep designated escape exits clear. An escape exit may either be a bridge into a terminal building, a cabin door or a passenger stair truck positioned on an open cabin door.
(b) ensure that all areas on stand below designated escape exits are kept free of any equipment and vehicles which would impede the deployment of an escape slide.
(c) not hinder escape routes of passengers on board by ensuring that passenger stairs and bridges are clear of FOD.

Refer to the operating airlines’ policy regarding fueling as well as local airports and regulatory requirements. The above is applicable as a minimum standard.

4.5 Adverse Weather Conditions

Adverse or poor weather conditions may have a negative impact on aircraft handling activities and ground safety.

4.5.1 Winter or Slippery Apron Conditions

Winter weather brings extra hazards which require awareness and more care on the part of personnel working on the aprons to prevent accidents. The following precautions to reduce accident risk must 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 approaching the aircraft. Remember that vehicles require greater distance to stop safely.
(c) Operators of potable water tankers and toilet servicing vehicles must be vigilant that there is no spillage or leakage that can lead to subsequent freezing. Care must be taken to keep spillage and overflow to a minimum.
(d) Close all entrance and cargo hold doors as soon as possible and keep them closed to avoid precipitation or snow entry into the aircraft.
(e) Reduce speeds in slippery apron conditions. Adjust all activities and operations on the ramp to suit the conditions at the time.

4.5.2 Thunderstorms

Refer to local airport or operating airline policy. Thunderstorm communication may be implemented in alert phases and the following represents a minimum standard.

**Danger:**
Do not wear a headset connected to the aircraft during a thunderstorm or if a warning has been issued.

When lightning is present:
(a) do not communicate with the flight deck using a connected communication headset. If necessary, communicate using standard hand signals as shown in this chapter.
(b) do not stay in open areas, under the aircraft loading bridge or near any pole.
(c) stop all ground handling operations.

**Fueling**

Aircraft fueling must immediately be stopped and is prohibited during thunderstorm activity.

4.5.3 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 aircraft hold doors.
(c) Make sure parking brakes are set on all parked GSE.
(d) Set parking brakes and secure by additional means if necessary, all non-motorized ramp equipment. (i.e. baggage carts and ULD dollies).
4.5.4 High Winds Activity Table
The following actions must be taken when sustained winds and/or gusts of wind exceeding 25 KTS are predicted:

<table>
<thead>
<tr>
<th>Action</th>
<th>48 to 72 km/h (30 to 45 mph)</th>
<th>72 to 111 km/h (45 to 70 mph)</th>
<th>Above 111 km/h (70 mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure bag/freight carts, dollies, ladders/maintenance stands and tow bars and place near or against the building.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ensure parking brakes are set on all ground equipment</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ensure empty ULDs are secured and doors/curtains are closed</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Clear FOD and remove ULDs from the stands.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Empty FOD containers and bring inside if not secure.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ensure empty FOD containers and bring inside if not secure.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Suspend use of pre-conditioned air hoses and store securely. Remove marker cones.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ensure empty ULDs are secured and doors/curtains are closed</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Secure FOD and remove ULDs from the stands.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Do not elevate cabin service/catering highlifts and passenger stairs not equipped with stabilizers.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Do not elevate cabin service/catering highlifts and passenger stairs equipped with stabilizers.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Close cargo hold/passenger doors. Refer to airline GOM.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Close all aircraft access panels.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Do not elevate booms on deicers.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Remove GSE from aircraft and secure in position outside ERA clear of aircraft.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Secure boarding bridge and position to minimize surface exposed to the direct force of the wind.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Retract and lower boarding bridge. Position so that boarding bridge length points away from the wind.</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

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

4.6.1 Safety Cone Placement and Removal
(a) Prior to arrival of the aircraft, make sure there are sufficient serviceable safety cones to protect the aircraft type to be handled.
(b) Do not approach the aircraft to position cones unless all of the following criteria are met:
   1. Aircraft has come to a complete stop.
   2. Engines have been shut down and are spooling down.
   3. Anti-collision lights are switched off.
   4. Aircraft has been chocked.
(c) Place safety cones on the ground in accordance with the following diagrams—within a maximum of 1 meter outward from the point of the aircraft being protected. Cones must not be placed in high wind conditions.
(d) Additional safety cones may be needed as per operational requirements or local regulations.
(e) GSE must not approach the aircraft until all safety cones have been placed.
(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.
(g) Ensure all GSE has been removed from the safety zone.
(h) Remove the safety cones from around the aircraft.
(i) When not in use, place the safety cones in the designated storage area.
Additional cones to be placed when parked on an open ramp adjacent to a service road.

CONE max 1m from wing tip
CONE max 1m in front of nose
CONE max 1m behind tail

CONE max 1m in front of engine
4.6.1.2 Cone Placement for Fuselage-Mounted Twin Engine Commuter Aircraft

- Cone max 1m behind tail
- Cone max 1m in front of nose
- Additional cone to be placed when parked on an open ramp adjacent to a service road, and always on aircraft with low ground clearance (e.g. CRJ100/200, ATR 42/72).
- Cone max 1m from wing tip.
- Cone max 1m from wing tip.

Additional cone to be placed when parked on an open ramp adjacent to a service road, and always on aircraft with low ground clearance (e.g. CRJ100/200, ATR 42/72).
4.6.1.3 Cone Placement for Wing-mounted Twin Propeller Aircraft

Additional cone to be placed when parked on an open ramp adjacent to a service road, and always on aircraft with low ground clearance (e.g. CRJ100/200, ATR 42/72)
4.6.1.4 Cone Placement for Wing-Mounted Four Engine Jet Aircraft

CONE max 1m from wing tip

CONE max 1m from trailing edge

CONE max 1m from eng.
4.7 Aircraft Chocking

4.7.1 Wheel Chock Placement

(a) Make sure the required number of serviceable chocks are available taking account of the aircraft type and/or weather conditions

(b) Chocks must be kept clear of the maneuvering area during aircraft arrival

(c) Do not approach the aircraft to position chocks until the aircraft has come to a complete stop

(d) One designated member of the ground staff immediately places chocks forward and aft (if aircraft type allows) of the nose gear. This is the first action to take place around the aircraft, and shall be completed before any other activity may take place.

(e) Before approaching the main gear, wait until:
   1. Engines have been switched off and are spooling down.
   2. Anti-collision lights are switched off.

(f) Place chocks forward and aft of the main gear in accordance with the applicable normal chock placement diagram. The chocks should lightly touch the tires.

(g) Notify the flight deck crew that the chocks are inserted

(h) Walk towards the main gear in a path parallel to the fuselage.

(i) Remove any temporarily-placed nose gear chocks, if applicable.

(j) Give the ‘Chocks Inserted’ hand signal to the flight deck crew.
4.7.2 Chock Placement Diagrams

<table>
<thead>
<tr>
<th>Turnaround (aircraft in service/attended)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aircraft with single axle main-gear bogie</strong>&lt;br&gt;Note: No nose gear chocks on aircraft with spray deflectors</td>
<td><strong>Aircraft with double axle main-gear bogie</strong>&lt;br&gt;(also applies w/center bogie)</td>
</tr>
<tr>
<td>Aircraft with triple axle main-gear bogie</td>
<td>Aircraft with center and body-gear bogies</td>
</tr>
</tbody>
</table>
Parking Aircraft Out of Service/Night-Stop/High Winds

<table>
<thead>
<tr>
<th>Aircraft with single axle main-gear bogie</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Note: No nose gear chocks on aircraft with spray deflectors</td>
<td></td>
</tr>
</tbody>
</table>

| Aircraft with triple axle main-gear bogie | Aircraft with triple axle center and body-gear bogies |

Note: Refer to the Operating Airline’s GOM for any Variations in High Wind Chocking Conditions.
4.7.3 Regional Aircraft Chocking

<table>
<thead>
<tr>
<th>Normal Turnaround</th>
<th>Regional Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>On arrival, first chock nose gear only</td>
<td>CRJ—only nose gear to be chocked (do not chock mains).</td>
</tr>
<tr>
<td>Once the propellers have been safely secured using appropriate tie-down straps, chocks are placed forward and aft of left main gear.</td>
<td></td>
</tr>
</tbody>
</table>

Once the propellers have been safely secured using appropriate tie-down straps, chocks are placed forward and aft of left main gear.

CRJ—only nose gear to be chocked (do not chock mains).
Normal Turnaround
Parking aircraft out of service/Night-Stop/High Winds

Regional Aircraft

Once the propellers have been safely secured using appropriate tie-down straps, chocks are placed forward and aft of left main gear.
CRJ—only nose gear to be chocked (do not chock mains).
4.8 Hand Signals

4.8.1 Introduction
In order to standardize “ground staff–ground staff” communication or “ground staff–flight crew” communication, the following hand signals are defined:
(a) Guide Man Hand Signals—to be used by a specific guide man in direct liaison with the equipment operator to facilitate movements of any type of GSE.
(b) Marshalling Hand Signals—to be used by ground staff, to assist the flight crew during maneuvering of the aircraft and engine starting.
(c) Technical/Servicing Hand Signals—to be used by ground staff to communicate technical/servicing information to flight crew, and by flight crew to communicate technical/servicing information to ground staff.
(d) Pushback Hand Signals—to be used during the tractor/towbar connection/disconnection process, and at the start and end of the pushback operation.

4.8.2 Conditions for Using Hand Signals
The person giving the hand signals must:
(a) Use only approved hand signals.
(b) Be clearly identified to avoid any possible confusion.
(c) Maintain the same role throughout the procedure.
(d) Keep in constant, visual contact with the other ground staff and flight crew throughout the maneuver. If visual contact is lost, the operation must stop and not re-commence until visual contact is re-established.
4.8.3 Guide Man Hand Signals (For GSE)

4.8.3.1 To Attract Operator’s Attention and Take Command:

Arms held above head in vertical position with palms, facing forward.
Meaning: I am in charge of this maneuver. You will take orders only from me.

4.8.3.2 Forward Movement (Toward man):

Arms a little aside and repeatedly moving upwards, backwards, beckoning onwards.
4.8.3.3 Backward Movement:
Arms by sides, palms facing forward, swept forward and upward repeatedly.

4.8.3.4 Turn Right:
Left arm downward, hand extended, right arm repeatedly moved upward backward. Speed of arm movement indicating rate of turn.

4.8.3.5 Turn Left:
Right arm downward, hand extended, left arm repeatedly moved upward backward. Speed of arm movement indicating rate of turn.
4.8.3.6 Lift:
Stretch both arms toward load or equipment, palm up, hand movement in upward direction.

4.8.3.7 Lower:
Stretch both arms toward load or equipment, palm down, hand movement in downward direction.
4.8.3.8 Accompanied Movement:

Come with Load or equipment. Maintain eye to eye contact with operator or driver. Swing down opposite arm.

4.8.3.9 Stop:

Arm repeatedly crossed above head (the speed of the arm movement must be related to the urgency of the stop).

Immediate stop: Hands cross over head with clenched fists.
4.8.3.10 Indicate Distance:

Distance shown between hands must correspond exactly with existing margin.

4.8.3.11 OK. All is Clear or continue by Your Own or Drive Away:

Lift stretched right arm, hand closed, thumb raised.
4.8.3.12 Chocks Inserted; Stabilizers On:

Arms down, hand closed facing inward, thumbs extended, move arms inwards.

4.8.3.13 Chocks Removed; Stabilizers Off:

Arms down, hands closed facing outward, thumbs extended, move arms outward.

4.8.3.14 To Interrupt Power Source (Electricity, Fuel, Air):

Right arm and hand level with shoulder, palm downward horizontally swinging from extended arm to throat
4.8.3.15  Stop Engine:

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

4.8.3.16  To Connect or Disconnect:

Raise left arm and hand, with fingers extended horizontally

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

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

4.8.3.17  Brakes On/Off:

Right arm and hand raised horizontally in front of body.

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

**Engage brakes:** With extended fingers, palm inward, then clenched fist.
4.8.4 Marshalling Hand Signals (For Aircraft)
(a) Do not perform aircraft marshalling unless it is permitted by the local airport authority and you have been trained and authorized.
(b) Give marshalling hand signals from a position forward of the aircraft while facing and within view of the pilot.
(c) Use illuminated torch lights/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.

Caution:
To avoid any possible confusion by the Flight Crew, do not use guide man hand signals for equipment until all aircraft marshalling has been completed.

Note:
(a) The hand signals printed on the following pages are illustrated with the use of wands. The meaning of the signals remains the same when bats, gloves or illuminated torch lights are used.
(b) It is not possible to give signals for engaging/releasing parking brakes with the use of bats or illuminated torch lights.

4.8.4.1 Identify Gate

Raise fully extended arms straight above head with wands pointing up, move hands fore and aft to keep from blending into background.
4.8.4.2 Continue to Taxi Straight Ahead

Bend extended arms at elbows and move wands up and down from waist to head.

4.8.4.3 Slow Down

Move extended arms downwards in a “patting gesture”, moving wands up and down from waist to knees.
4.8.4.4 Turn Right (From the Pilots Point of View)

With left arm and wand extended at a 90° angle to the body, right hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.

4.8.4.5 Turn Left (From the Pilots Point of View)

With right arm and wand extended at a 90° angle to the body, left hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.
4.8.4.6 Stop/Emergency Stop

Fully extend arms and wands to cross above the head.

4.8.4.7 Hold Position/Stand-by

Fully extend arms and wands downwards at a 45° angle to the sides. Hold the position until the aircraft is clear for the next maneuver.
4.8.4.8 Proceed to Next Marshal or as Directed by Tower/Ground Control

Point both arms upward, move and extend arms outward to side of body and point with wands to direction of next marshal or taxi area.

4.8.4.9 End Marshalling

Perform a standard military salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with the flight crew until the aircraft has begun to taxi.
4.8.4.10 Fire

Fire—Move right hand in an exaggerated figure of 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.

4.8.4.11 Set Brakes

Raise hand just above shoulder height with open palm. Ensuring eye contact with the flight crew, close hand into a fist. DO NOT move until receipt of thumbs up acknowledgment from the flight crew.
4.8.4.12 Release Brakes

Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with the flight crew, open palm. **DO NOT** move until receipt of thumbs up acknowledgment from the flight crew.

4.8.4.13 Chocks Inserted

With arms and wands fully extended above head, move wands inward in a “jabbing” motion until the wands touch.
4.8.4.14 Chocks Removed

With arms and wands fully extended above head, move wands outward in a “jabbing” motion. **DO NOT** remove chocks until authorised by the flight crew.

4.8.4.15 Start Engines

Raise right arm to head level with wand pointing up and start a circular motion with hand, at the same time with the left arm raised above head level point to aircraft.
4.8.4.16 Emergency Engine Shut Down

Extend 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.

4.8.5 Technical/Servicing Hand Signals—Ground Staff to Flight Crew

(a) Only use manual signals when verbal communication is not possible.
(b) Make sure acknowledgement is received from the flight crew on all occasions.

4.8.5.1 Connect Towbar:

Bring arms above the head and grasp forearm with opposite hand.
4.8.5.2 Air Up (Supply Pressurised Air for Engine Start):

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

4.8.5.3 Connect/Disconnect Ground Power

To connect ground power:

Hold arms fully extended above head, open left hand horizontally and move finger tips of right hand into and touch the open palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above the head.
To disconnect power:

Hold arms fully extended above head with finger tips of right hand touching the open horizontal palm of the left hand (forming a “T”), then move right hand away from the left. **DO NOT** disconnect power until authorised by the flight crew. At night, illuminated wands can also be used to open the “T” above the head.

4.8.5.4 Affirmative/All Clear

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

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

4.8.5.6 Interphones

Extend both arms at 90° from body and move hands to cup both ears.
4.8.5.7 Do not Touch Controls

Raise right hand above head level and close fist or hold wand in horizontal position, left arm remains at side by knee.

4.8.5.8 Open/Close Stairs Forward/Aft

With right arm at side and left arm raised above head at a 45° angle, move right arm in sweeping motion towards top of left shoulder.
4.8.6 Technical/Servicing Hand Signals—Flight Crew to Ground Staff

4.8.6.1 Brakes Engaged:

Raised arm and hand, with fingers extended, horizontally in front of face. Hand is then closed to a fist.

4.8.6.2 Brakes Released:

Raised arm, with fist clenched, horizontally in front of face. Hand is then opened to an open palm.

4.8.6.3 Insert Wheel Chocks

Arms extended, palms outwards, and hands moving inwards.
4.8.6.4 Remove Wheel Chocks:

Hands crossed in front of face, palms inwards, and arms moving outwards.

4.8.6.5 Ready to Start Engine(s):

One hand raised with the appropriate number of fingers stretched indicating the number of the engine to be started.

4.8.6.6 All Clear:

Acknowledgement of all ground actions.
4.8.7 Pushback Hand Signals—Headset Operator to Tug Driver

4.8.7.1 Vehicle Brakes Off

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

4.8.7.2 Clear to Push

Hold arm straight out at a 90° angle from the shoulder and display hand with thumb up. This indicates to the tug driver that all equipment is clear of the aircraft, the chocks have been removed, the aircraft brakes are off and the flight crew has given clearance to commence pushback.
4.8.7.3  Negative/Hold

Hold arm straight out at 90° angle from the shoulder and display hand with thumb down. This indicates to the tug driver that the aircraft is not ready for pushback and to hold position.

4.8.7.4  Vehicle Brakes On/Stop

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

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

4.8.7.6 Change of Pushback Direction

Touch nose with finger and with arm at a 90° angle to the shoulder, point in the direction that the aircraft needs to be turned to.
4.8.8 Pushback Hand Signals—Wingwalker to Headset Operator/Tug Driver

4.8.8.1 Clear to Move Aircraft

Raise one fully extended arm with wand straight above head and with the other arm and wand at a 45° angle downward to the side.

4.8.8.2 Stop Movement of Aircraft

Fully extend arms and wands to cross above the head.
4.8.8.3 Hold Movement of Aircraft

Fully extend arms and wands downwards at a 45° angle to the sides. Hold this position until it is clear for the aircraft to move.

4.9 Aircraft Arrival

4.9.1 Actions Prior to Arrival

△ (a) Conduct FOD check on entire stand removing all debris just prior to arrival.
(b) Make sure the stand surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement.
(c) Make sure all Ground Support Equipment (GSE) is positioned well clear of the aircraft path, outside the Equipment Restraint Area (ERA).
(d) Make sure the aircraft path and ramp area is free of objects and obstacles which the aircraft may strike or endanger others due to jet blast effects.
(e) Make sure aircraft docking guidance system is operating, or marshalling staff is present.
(f) Make sure additional ground personnel (such as wing walkers) are present (if required).

Danger:
All persons not responsible for the aircraft arrival operation must stay well clear of the arriving aircraft and must not approach the aircraft until:
The engines have been switched off and are spooling down.
The anti-collision lights have been switched off, and
The main gear wheel chocks are positioned.
Clearance to approach the aircraft has been given by the agent responsible for the arrival operation, if applicable.

Prior to the arrival of the aircraft, the following equipment must be serviceable and available on the stand:
(a) Chocks (as required by aircraft type)
(b) Safety Cones (as required by aircraft type)
(c) Ground power (as required)
(d) Preconditioned air (as required)
(e) Headset interphone (if applicable)
(f) Day or night wands (whichever is applicable)
4.9.2 Standard Arrival Procedure

4.9.2.1 Aircraft Arrival at a Stand or Open Ramp

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

(a) As 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 STAND” signal.

(b) While the aircraft taxis along the guide-in line, the marshaller gives the “Continue to Taxi ahead” signal with marshalling wands.

(c) The nose wheel should follow the lead-in line all the way to the appropriate stop point. Use the “Turn Left” or “Turn Right” signals to correct the track of the aircraft as required.

(d) If at any time during aircraft movement you are unsure or identify an imminent danger, STOP the aircraft.

(e) 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.

(f) Once the aircraft has come to a complete stop and all conditions for chocking are met, the aircraft can be chocked.

(g) Ground power and Pre-Conditioned Air are connected (if required/available).

4.9.2.2 Actions After Arrival

Upon aircraft stopping:

(a) Position wheel chocks at nose landing gear wheels. (if required)

(b) Position and connect the Ground Power Unit, if required, before engine shut down.

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

(a) Position wheel chocks at the main landing gear wheels and verbal/visual confirm to flight crew.

(b) Confirm there is no damage on the cabin door area prior to positioning the passenger boarding device(s).

(c) Position the safety cones.

(d) Conduct an arrival walkaround to inspect for damage on the following parts of the aircraft:

1. All cargo doors
2. All access panels and servicing access points
3. Aircraft fuselage
4. Aircraft engine cowlings
5. Aircraft passenger doors.

(e) Give clearance for GSE to approach aircraft.

(f) Remove nose gear chocks (if required).

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

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.
4.9.3 Ground Support Equipment on Arriving Aircraft

4.9.3.1 Ground Power Unit (GPU)

(a) It is permitted to pre-position a GPU inside the ERA provided there is an assigned GPU parking position.

(b) Position the GPU on the appropriate side of the nose parallel to the aircraft center line with the towbar facing away from the aircraft as shown below.

(c) Set parking brake/chock the GPU.

4.9.3.2 Cooling/Heating Units/Pre-Conditioned Air (PCA)

Danger: Before supplying air by external source make sure that at least one cabin door is open and remains open during air unit operation as per operating airline procedure. Make sure that a motorized ground air supply unit is not near the aircraft. The engine exhaust pipe of the unit MUST point away from the aircraft. Heat from the unit's exhaust can cause damage to the aircraft structure.

As part of the fuel conservation programs of most airlines, pre-conditioned air is required at all airports that provide on-stand pre-conditioned air.

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

To connect PCA:

(a) Open access panel.
(b) Connect ground pre-conditioned air unit to aircraft.
(c) Start up ground pre-conditioned air unit.
(d) On the ground pre-conditioned air unit, select the desired cooling or heating settings (air temperature and flow rate) or position the selector in the appropriate position.

To disconnect PCA:

(a) Shut down ground pre-conditioned air unit.
(b) Disconnect ground pre-conditioned air unit from aircraft.
(c) Close the access panel.
(d) Retract the PCA hose to the fully stowed and secured position.

4.10 Aircraft Doors

(a) Do not operate ANY aircraft doors unless you have been trained and authorized to do so.
(b) Seek assistance from maintenance personnel if any difficulty is experienced during normal door operation.

Caution: Do not operate or leave doors open in winds exceeding those indicated in the manufacturer's limitations.
4.10.1 Cabin Access Doors

4.10.1.1 General
There are variances between airlines regarding responsibility for operating cabin access doors. The operating airline determines whether ground staff or cabin crew are authorized to operate cabin access doors—all ground personnel MUST follow procedures as set by the operating airline GOM.

Danger:
Cabin access doors shall only be in open position if there is an appropriate boarding device positioned at the door. Cabin access doors may not be opened without appropriate equipment positioned at the door. There is a risk of falling while operating cabin doors. Slide deployments can be fatal. If an armed door begins to open, do not attempt to hold the door, as you risk being seriously injured or killed.

If a cabin access door is found open without a boarding device positioned at the door you must immediately notify a supervisor or the airline representative.
(a) Do not attempt to close the cabin access door unless trained and qualified.
(b) Guard the cabin access door until a qualified person is present to close it.

4.10.1.2 Opening Cabin Access Doors
THIS SECTION PROVIDES GENERIC SAFETY PRECAUTIONS AND DOES NOT CONSTITUTE TRAINING ON OPENING/CLOSING OF AIRCRAFT DOORS. FOLLOW OPERATING AIRLINE’S GOM AND TRAINING AS REQUIRED.

4.10.1.2.1 Opening of Cabin Access Doors from Inside by Trained Crew
Ground staff should:
(a) Knock twice on the door from outside to indicate that a boarding device is properly positioned outside a door to be opened and that the door swing area is free of obstructions.
(b) Stand clear of the door and wait for the cabin crew to open.
(c) (As applicable) Assist cabin crew with moving the door to the fully opened position and engaging the gust lock as necessary.

4.10.1.2.2 Opening of Cabin Access Doors from Inside by Authorized and Trained Ground Staff
(a) Check that the door is disarmed.
(b) Check that all indicators show that it is safe to open the door.
(c) Check visually that a boarding device is positioned at the door.
(d) Open the door slowly and carefully in accordance with the instructions and markings labeled on the door, and the respective aircraft type specific instructions, and/or your training.

4.10.1.2.3 Opening Cabin Access Doors from Outside with Crew/Ground Staff on Board
(a) Look for indications that the door is disarmed.
(b) Check that all indicators show that it is safe to open the door.
(c) If there is no indication from the cabin crew that the door is disarmed, knock twice on the door and repeat the previous step.
(d) If there is still no indication from the cabin crew that the door is disarmed, contact the Pilot-in-Command via an open cockpit window or the aircraft interphone system.
(e) If there is no cabin crew on board and the red/orange streamer is visible across the interior of the door window, then do not open the door. Instead, seek assistance from airline personnel.
(f) If you cannot confirm that the door is disarmed, DO NOT OPEN THE DOOR.
(g) Once you confirm that the door is disarmed, open the door slowly and carefully in accordance with the instructions and markings labeled on the door, and the respective aircraft type specific instructions.
(h) If integral airstairs (other than those permanently affixed to a boarding door) are to be used, slightly open the door until the airstairs are fully extended.
(i) Move the door to the fully opened position and engage the gust lock.

4.10.1.2.4 Opening Cabin Access Doors from Outside with no Crew/Ground Staff on Board
(a) Look for indications that the door is disarmed.
(b) Check that all indicators show that it is safe to open the door.
(c) If you cannot confirm that the door is disarmed, DO NOT OPEN THE DOOR.
(d) Once you confirm that the door is disarmed, then open the door slowly and carefully in accordance with the instructions and markings labeled on the door, and the respective aircraft type specific instructions.
(e) If integral airstairs (other than those permanently affixed to a boarding door) are to be used, then slightly open the door (ajar) until the airstairs are fully extended.

(f) Move the door to the fully opened position and engage the gust lock.

### 4.10.1.3 Embarkation or Disembarkation Through Cabin Access Doors

Before allowing passengers or crew embarkation or disembarkation via a cabin access door, ensure that the boarding device is properly positioned at the door, and if stairs or integral airstairs are to be used, that both guard rails (if applicable) are extended.

### 4.10.1.4 Closing Cabin Access Doors

(a) Make sure service doors are closed immediately after servicing is completed.

(b) Receive confirmation from the crew that the cabin access door(s) may be closed for departure.

(c) Before removing the last boarding device from an aircraft, inform any ground staff onboard the aircraft that the last cabin access door is being closed and the last boarding device is being removed from the aircraft.

(d) Look for any possible obstructions around the door area and remove them.

(e) Make sure the door gust lock is released and assist the person closing the door by moving it to the ajar position.

---

**Caution:**

If the cabin access door cannot be closed with the boarding device connected, then the operation must be performed from inside the aircraft with extra vigilance and without assistance of ground staff outside the aircraft.

(a) Do not remove the boarding device from the aircraft until the door is fully closed and locked.

(b) If stairs were used at a cabin access door, then retract the stair handrails if necessary to close the door. Remain at the top of the stair platform until the door is fully closed, and then descend the stairs before they are moved.

(c) Close the door slowly and carefully in accordance with the instructions and markings labeled on the door, and the respective aircraft type specific instructions.

(d) Before leaving the vicinity of the door, confirm that the door is properly seated flush with the surrounding airframe and that the exterior door handle is flush with the surface of the door.

(e) Seek assistance from aircraft maintenance personnel any time a door malfunction occurs.

(f) Do not retract equipment stabilizers in advance of the cabin door being fully closed.

(g) Before retracting equipment from the door, check to ensure the maneuvering area is clear of all obstructions and personnel.

(h) If a passenger boarding stairs unit is used, then retract the passenger stairs canopy. Move the equipment to its approved parking position and engage any applicable restraints (such as closing the door on the passenger boarding stairs opening).

(i) Make sure that the cabin access door and the surrounding door frame and panels show no visible signs of damage. If damage is discovered during inspection of the cabin access door or frame, then immediately report it to aircraft maintenance personnel, and if available, the Pilot-in-Command.

### 4.10.1.5 Re-Opening Cabin Access Doors

If a cabin access door is not closed properly then it must be re-opened and re-closed. Other situations when cabin access doors may need to be re-opened include the following:

(a) Subsequent delivery of catering and/or supplies, after the passenger boarding devices have been removed, OR

(b) Re-connecting of passenger boarding devices after the initial removal. If there is no crew on board the aircraft, follow the applicable Opening Cabin Access Doors procedures in IGOM.

(c) Once the cabin access door has been closed in preparation for departure, do not attempt to re-open any aircraft door without the authorization of the flight crew.

(d) If you believe a door must be re-opened, you must notify the flight crew through an open cockpit window or use the flight interphone system.

(e) If the crew requires a door to be re-opened, they will notify ground staff.

(f) Regardless of which party requested that the door be re-opened, once the flight crew gives clearance for the door to be re-opened, follow the actions/steps in: Opening Cabin Access Doors.

(g) If authorization to re-open the door is not granted, do not attempt to re-open the door unless clearance given by the flight crew.
4.10.2 Cargo Hold Doors

4.10.2.1 Opening Cargo Hold Doors
(a) Do not operate cargo doors unless trained and authorized.
(b) Manual operation of an electrically or hydraulically operated cargo door may only be performed by maintenance personnel or flight crew.
(c) Do not open the cargo doors until the aircraft engines have been shut down and the anti-collision lights have been switched off.
(d) Before positioning loading equipment or any other ground support equipment at cargo doors and opening cargo doors, perform a visual check for any signs of damage to the doors or surrounding areas. If any irregularities are discovered during this visual check, report them to aircraft maintenance personnel and, if available, the Pilot-in-Command.
(e) Cargo doors must be opened using technical steps or belt loaders equipped with raised safety rails to reach the cargo doors. ULD loaders must not be used. (Not applicable to main deck cargo doors).
(f) Open the cargo doors in accordance with the respective aircraft type specific instructions.
(g) Allow adequate space for door clearance to avoid equipment obstructing the free passage of the door.
1. Most aircraft lower compartment cargo doors hinge upwards. Be aware that when opening or closing cargo doors, the lower edge of the door will swing down before going upward.
2. For main deck cargo compartment doors, remove safety barrier once the main deck loader is in position.
(h) If the cargo door will not open, do not use excessive force, tools or ground support equipment to push or pull on the door to open it. Contact aircraft maintenance personnel for assistance.

4.10.2.2 Closing Cargo Hold Doors
(a) Do not operate cargo doors unless you have first been trained and authorized.
(b) Manual operation of an electrically or hydraulically operated cargo door may only be performed by maintenance personnel or flight crew:
1. Before closing the cargo doors, ensure: that load restraint and door protection nets are properly fitted;
2. that the cargo compartment lights have been switched off unless required for carriage of AVI;
3. that the door area including the door sill and frame are free of gravel, water, ice and other foreign substances or obstructions;
4. that the door and door frame show no visible signs of damage;
5. that any damage discovered during the inspection of the cargo doors and surrounding areas/frames is immediately reported to aircraft maintenance personnel and the Pilot-in-Command.
(c) All cargo doors must be closed using technical steps or belt loaders equipped with raised safety rails to reach the cargo doors. ULD loaders must not be used. (Not applicable to main deck cargo doors).
(d) Check that door lock indicators are engaged/properly set as applicable and that the door is properly locked, handles are stowed flush and panels are properly closed.
(e) If a cargo compartment door is not closed properly, it must be re-opened and re-closed.

Caution: If a cargo door must be re-opened prior to aircraft movement, approval from the flight crew via the ground staff responsible for the departure must be obtained.

4.10.2.3 Re-Opening of Cargo Hold Doors
(a) If a cargo compartment door is not closed properly, it must be re-opened and re-closed.
(b) Once the pre-departure walkaround has taken place, do not attempt to re-open any aircraft door without the authorization of the flight crew.
(c) If you believe a door must be re-opened, you must notify the flight crew through an open cockpit window or use the flight interphone system.
(d) If the flight or cabin crew requires a door to be re-opened, they will notify ground staff.
(e) Regardless of which party requested that the door be re-opened, if the flight crew gives clearance for the door to be re-opened, follow the actions/steps in: Opening Cabin Access Doors.
(f) If authorization to re-open the door is not granted, do not attempt to re-open the door unless clearance is received from the flight crew.
4.11 Aircraft Loading

4.11.1 Supervision of Aircraft Loading

4.11.1.1 General
Before loading, the hold shall be visually inspected for damage that can affect the load capacity. A qualified individual must supervise the loading of the aircraft and provide a signed confirmation to say:
(a) The aircraft has been loaded as instructed—including any special load instructions;
(b) The condition of locks, restraints or ULDs has not affected load capacity;
(c) The bulk load and ULDs are correctly secured and locks and nets are in use;
(d) Visible dangerous goods packages were inspected prior to loading;
(e) Special loads, including dangerous goods have been stowed and secured according to regulations and operating airline procedures;
(f) The holds are free of any foreign objects;
(g) Any deviations are noted.

4.11.1.2 Loading of General Baggage/Cargo
The person responsible for loading is in charge of, and responsible for, the safe and efficient loading and offloading of the aircraft as well as the protection of the goods carried. He will ensure the aircraft is loaded as specified by the load agent, in accordance with the operating airline procedures. The person responsible for loading shall be trained in accordance to the standards outlined in AHM 611.

4.11.1.3 Loading of Dangerous Goods (where Carried)
The person responsible for loading is responsible for the loading of Dangerous Goods shipments as described in the IATA DG Manual and must be qualified as per IATA Dangerous Goods Regulations (DGR) training requirements.

4.11.2 Safety Requirements Specific to Aircraft Loading Operations

4.11.2.1 General
(a) Get assistance when moving heavy articles.
(b) Do not use baggage carts to gain access to cargo compartments.
(c) The loader bridge height shall be monitored during the loading process and adjusted as necessary to maintain a correct alignment with the cargo hold floor.
(d) Use ULD Loader platform guiderails as required to ensure alignment when loading.
(e) Block or secure cargo which will not lie flat on conveyor belts.
(f) Push DO NOT PULL containers on and off dollies and loaders.
(g) Protect live shipments from inclement weather.
(h) Be alert for special/dangerous goods shipments. Know how they must be handled and secured.
(i) Operators of equipment shall ensure that other personnel are not entrapped by movement of load/pallets/containers either in the aircraft or on the loading equipment.
(j) Gates of loaded carts should be lowered carefully, in case loose cargo falls out and causes injury.
(k) Holds and compartments shall only be entered or exited by using the appropriate elevating device and which has been positioned and secured, e.g. belt conveyor and cargo loader.
(l) Do not walk between ULDs or carts being towed, or when they are stationary on the ramp.
(m) When loading has been completed, move all loading equipment well clear of the aircraft.

4.11.2.2 Special Precautions when using Carts
(a) Do not wedge light packages between heavier items.
(b) Do not overload. Ensure curtains or restraints on carts are secured while transiting, (if equipped).
(c) Ensure the overall height of load permits safe lifting of each piece of load during loading and offloading of carts by personnel standing on the ground.
(d) When using tarpaulins, ensure all straps are securely fastened to the baggage cart.
(e) When not in use the braking system shall be engaged on all strings of baggage carts.

4.11.2.3 Special Requirements when using Tractors
(a) Drive tractors and carts within speed limits according to local airport regulations, and take care to avoid sharp turns, jerks and sudden stops.
(b) Approach the aircraft at walking speed.
(c) Limit the number of carts and dollies in a train to the maximum specified by the local airport regulations.
(d) Do not attempt sharp turns close to the aircraft. Keep at least 1 m (3 ft) away from the fuselage.

4.11.2.4 Special Precautions when using Belt Loaders
(a) Ensure proper separation between articles on the conveyor belt to avoid jamming.
(b) Adjust the back of the conveyor belt correctly to avoid dropping goods from the belt.
(c) Handrails shall be deployed when a belt loader is used to gain access to aircraft cargo holds; however caution shall be exercised where there is restricted clearance with the aircraft fuselage or engines.

4.11.2.5 Special Precautions when using ULD Loaders
(a) DO NOT stand between loader and moving dollies.
(b) Align dollies correctly to loader. Use guide man if required.
(c) ULD loaders should not be used to transport ULDs across the ramp unless specifically designed for this purpose.
(d) Do not move ULDs until personnel are clear of all hazards.
(e) Whenever possible, reverse in a straight line at a walking pace, monitoring all sides for clearance.
(f) Ensure path of loader is clear of all obstructions prior to initiating turns.
(g) Retract or lower handrails, platforms and operators sections to ensure adequate clearance before positioning equipment.
(h) Extend all handrails before loading or unloading.
(i) Do not rotate a ULD on a loader elevator platform while raised or in-transit.
(j) Before removal or repositioning of loader, ensure any load positioned in the doorway is secured against roll out.

Caution: Warning Fall Hazard: Do not ride on the elevating platform to gain access to the loader bridge.

4.11.2.6 Low-Wing Aircraft
(a) To prevent damage to aircraft with low wings, baggage tractors shall stop approximately 1 meter (3 ft) from the belt loader to unhook the carts. Move the tractor away and position the carts by hand.
(b) Take care when pulling or pushing carts especially when ramp conditions are slippery. When necessary obtain assistance.
(c) When removing baggage carts, the tractor shall be positioned pointing away from the aircraft wing and the baggage cart pulled to the tractor.
(d) Extreme caution must be used when using covered baggage carts.

4.11.2.7 Bulk Loading of Smaller Aircraft
(a) Use belt loaders if the door sill height does not allow items to be passed into the doorway without undue lifting. Always consider the use of belt loaders for heavy items (over 23 kgs).
(b) Keep a gap of at least 1m (3 feet) between baggage carts/dollies and the cargo belt when towing, to prevent collisions when approaching the belt loader.
(c) Carts or dollies must be disconnected from the tractor and manoeuvred by hand if the carts or dollies need to be closer than 1 m (3 feet).

4.11.3 General Loading Precautions
(a) Hold baggage must be inspected for signs of leakage before loading.
(b) Any item of load which is not properly packed and any item that may damage or contaminate the aircraft must not be loaded.
(c) Container curtains must be closed and locked into place prior to loading the ULD into the aircraft.
(d) Containers must not be contaminated when loaded (snow, wood, plastic etc.).
(e) Use tarpaulins or covered carts during inclement weather.
(f) Do not place goods directly on the apron.
(g) Always observe the specific instruction labels and marks such as FRAGILE, TOP, THIS SIDE UP, etc.
(h) Report torn (or missing) baggage tags and cargo labels, and do not load unless corrected.
(i) Report immediately any damage to the load, whether it occurs during handling or is noticed on arrival.
(j) Report immediately any spills, unusual fumes or smells, etc., to a Supervisor, Flight Crew or local authorities as required.
4.11.4 Spills in Cargo Holds
(a) Spills can occur in cargo holds during loading and 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 liquid, gels, or material in a powdered or granulated form.
(c) Spills can be hazardous corrosive, flammable, explosive, toxic or 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 not cleaned up quickly.

It is essential that any spill is reported immediately to Maintenance, so that corrective action can be taken.

4.11.5 Cargo Hold Inspection
When an offload is completed, a final check of ALL cargo holds must be conducted to inspect each cargo hold for:
(a) Damage to the compartment
(b) Damaged or malfunctioning floor locks
(c) Spills in the hold that may have occurred
(d) Baggage or cargo that may have been left onboard the aircraft.
(e) Any other items that should not be present in the hold

A check must be conducted in a hold even if on arrival the hold was reported as not carrying any cargo/baggage (empty).

If any damage is found to the compartment or locks, if a spill has occurred, or if any other irregularity is found, it must be immediately reported to a supervisor, the flight crew, and/or a company representative as required by operating airline.

4.11.5.1 Cargo Hold Damage
Any damage to the structure or linings of containerised or bulk holds may lead to specific loading limitations. Therefore, any damage must be reported. The Load Controller shall be informed accordingly.

4.11.5.2 Compartment Separator Nets
Compartment separator nets must be secured prior to all flight departures. Between offload and onload, compartment nets must be secured inside aircraft compartments and not left hanging outside, to avoid clips and attachment points from striking fuselage (especially during adverse weather conditions) or inadvertently hooked on GSE and pulled out of the aircraft.

4.11.5.3 Cargo Door Barrier Nets
Cargo door barrier nets must be installed prior to flight departure to prevent cargo from shifting in flight and damaging or blocking the compartment door.

4.11.5.4 Container/Pallet Restraint System
All container stops and pallet locks required to secure containers and pallets must be extended and locked prior to any flight. This includes cargo holds that are empty, unless specified by the operating airline.

A tactile check must be performed by checking the security of each lock with your hands.

4.11.6 Advance Loading Preparation
Before loading commences, the load shall be assembled and checked against loading instructions.
(a) Ensure ULD placards are properly filled out with the correct information (see 4.11.14.2).
(b) Ensure ULDs and all cargo is inspected and is fit to be loaded on the aircraft.
(c) If possible, arrange ULDs on the ramp in order of onload.

4.11.7 Aircraft Ground Stability
Loading or offloading may cause the aircraft to become unstable or could cause the aircraft to tip. Respect aircraft ground stability requirements during loading and offloading. In general:
(a) offload aft holds before forward holds
(b) when loading, load forward holds before aft holds

For cargo aircraft, a tail support stanchion or nose tether may be required to be fitted during loading and offloading.
4.11.8 Offloading Procedure

4.11.8.1 Scaling Process
If the Flight Crew experiences a handling irregularity on take-off, the Flight Crew may request aircraft scaling (weighing of all baggage and cargo on board) at the arrival station. Aircraft must not be offloaded when a scaling has been requested until the process has been initiated. Contact the airline representative for details.

4.11.8.2 Identifying Shipments Requiring Specific Handling
Comply with any special handling requirements. All shipments requiring specific handling will be identified on the LDM/CPM.
(a) Make sure that packages with directional handling labels are kept in the correct orientation (this way up, etc).
(b) Take care with fragile items.

4.11.8.3 Safety Precautions for Offload
(a) Take care when handling heavy items. Use proper lifting techniques and ask for assistance if required.
(b) Take care when placing items on belt loaders. Make sure they are stable and will not fall off.
(c) Check ULDs during offload for damage, leakage and load stability.
(d) Check for incorrectly loaded ULDs (locks not raised, locks or side rails overridden, etc).
(e) Take care if load has shifted during flight.
(f) Containers can tip during movement because the base is smaller than the top, causing a high center of gravity.

4.11.9 Loading Procedure
Before loading commences, verify the aircraft registration with the registration on the loading instruction report.
(a) Ensure onload has been checked against LIR. Weights and ULD numbers must be cross checked.
(b) Ensure special equipment (tie down straps, etc.) is available, as required.
(c) Ensure LIR is received and understood by loading crew.
(d) Before loading commences, carry out inspection of cargo compartments and restraint system. Report any defects to supervisor, the flight crew, and/or a company representative as required by operating airline.
(e) For cargo shipments, ensure the nets or tie down straps are tight and the load is secure.
(f) Inspect ULDs for serviceability. Do not load damaged ULDs.
(g) Items with directional handling labels should be loaded so that the labels will be visible during offload.
(h) When loading pallets or containers make sure that the edges are either guided by the side rails or fit under the stops/locks/guides and that the height of the pallet allows for sufficient clearance in the door opening.
(i) When loading pallets or containers make sure that the edges are either guided by the side rails or fit under the stops/locks/guides and that the height of the pallet allows for sufficient clearance in the door opening.
(j) Check that the passage of the ULDs into their position is not obstructed by stops/locks/guides.
(k) Ensure separator nets, fire barriers, door nets, pallet locks and container stops are installed and locked as required as the hold is loaded.
(l) Keep count of bulk loaded baggage by compartment and destination.
(m) Document all changes to the load and sign the Load Instruction Report.
(n) Carry out load verification prior to finalising the weight and balance.

4.11.10 Live Animals
Transportation must be in accordance with the IATA Live Animals Regulation (LAR). Also check airline manuals, corresponding sections, for aircraft specific regulations, which may apply.

4.11.11 Wet Cargo
4.11.11.1 Loading
The Loading Supervisor must check if:
(a) The wet cargo is properly packed and free of leakage.
(b) The aircraft floor is properly protected from risk of spillage.
4.11.12 Tie-Down
Loose load is usually restrained by separation nets between sections or door protection nets. Nevertheless, certain type of loads must always be tied-down.

The following is an example of items which must always be tied-down:
(a) All high density packages (sharp angles, steel extrusions, metallic trunks, etc.).
(b) All high density packages (sharp angles, steel extrusions, metallic trunks, etc.).
(c) Power driven wheelchairs (bulk compartment).
(d) AVI.
(e) Human remains (HUM).
Refer to operating airline policy for further requirements.

4.11.12.1 General Rules
The following must be considered when applying tie-down of cargo. The total tie-down must ensure restraint in at least the following directions:
(a) Upward
(b) Forward and Aft
(c) Sideward

Upward:

Forward and Aft:

Rearward:
Sideward:

Completed Tie-down

4.11.12.2 Tie Down Fittings
A single tie-down fitting may receive up to 3 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, and thus the fitting will never be pulled by more than one strap/rope at the same time. Therefore a fitting may never receive more than one strap/rope in the same direction.
4.11.12.3 Tie-Down Equipment
Track and Anchor Plate

1-stud and 2-stud Fittings

Outboard Side Lock and Side Guide
4.11.12.4 Example of Tie-Down Provisions in Bulk Compartment

**Caution:**
Tie-down on any other part of the aircraft structure, or on other restraints than those above, even if equipped with rings or tie-down points, is forbidden.
4.11.13 Load Spreading

When the weight of item(s) to be loaded exceeds the maximum floor load per square metre or the maximum floor load per running metre of a compartment, the weight has to be spread to prevent damage to the compartment floor. This applies to HEAs, but may also apply to smaller items weighing less than 150 kg.

Caution:
Overloading can cause damage to aircraft frames and ribs and consequently can have serious implications for the safety of the aircraft.

The weight can be spread by making use of spreading wood, in which case:
(a) The surface to support the weight will be enlarged.
(b) The length will be enlarged.

The Load Agent or Cargo will advise the spreading requirements for each item. The information will be notified on the LIR.
4.11.14 Unit Load Devices (ULDs)

4.11.14.1 General

ULDs can be divided into three groups:
(a) Containers
(b) Pallets
(c) Pallet Nets

Each ULD must meet minimum technical specifications to ensure safe restraint of the load. These specifications are published in the IATA ULD Technical Manual.

4.11.14.2 Identification/Labelling of ULDs

Identification: Each ULD has an IATA identification code allowing proper ULD control.

The first three identify the type of ULD. The next four or five identify the inventory number and the last two identify the airline or pool that owns the container. For example:

<table>
<thead>
<tr>
<th>TYPE OF CONTAINER</th>
<th>INVENTORY NUMBER</th>
<th>AIRLINE/POOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKE</td>
<td>12345</td>
<td>1A</td>
</tr>
</tbody>
</table>

All ULDs must be identified with container/pallet tags when loaded. The pre-printed letters (in boxes) indicate the specific application of the tag.
(a) Each tag must be fully completed.
(b) One tag must be placed in the tag holder of a container.
(c) A cross-check must 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 number shown on the LIR
   2. ULD number shown on the ULD identification tag
   3. ULD identification number printed or stamped on the ULD

All unit load devices should be marked with the warning “DANGER, DO NOT WALK BETWEEN ULDs OR TRAILERS”. A warning sign may be used. A suggested warning sign is shown below.
4.11.14.3 Unit Load Device (ULD) Inspections
Unserviceable ULDs could:
(a) Cause injury to employees.
(b) Damage the aircraft structure.
(c) Impact On Time Performance.
(d) Damage ULD contents (Baggage and Cargo).
(e) Affect Weight and Balance load requirements.

4.12 Aircraft Departure

4.12.1 Introduction
△ A departure is normally conducted with a dialogue between flight crew and ground staff in charge of the departure via an interphone. This procedure ensures the highest level of safety during departures based on a precise exchange of information. The person responsible for pushback is in charge of the departure operation remains in continuous contact with the flight crew and is responsible for the ground maneuver. The scope of this departure procedure is limited to conventional towbar and towbarless pushback operation.

Note: The term “headset” also applies where an interphone system is used.

△ 4.12.2 Wheel Chock Removal
Headset Operator:
(a) Via the interphone, request chock removal approval from the flight crew, and confirm the aircraft parking brakes are set
(b) Check all GSE have been disconnected from the aircraft
(c) Check the passenger boarding stairs have been retracted from the aircraft, if applicable
(d) Check the tow tractor and tow bar (or towbarless tractor) are fully secured to the nose gear and parking brakes are set on the tractor, if applicable
(e) Give clearance to ground staff to remove chocks.

Note: If a chock is stuck, the responsible personnel remove it by tapping it with a spare chock or moving the aircraft after the aircraft brakes have been released.

(f) Relay ‘Chocks Removed’ hand signal to the flight crew, and ensure the flight crew repeats the ‘Chocks Removed’ hand signal as a confirmation

(g) The responsible personnel shall stow chocks in their designated stowage place.

Note: Nose gear wheel chocks may be removed without notification provided the main gear wheel chocks are still positioned. 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.

If hand signals are used (i.e. aircraft interphone system is inoperative) the person performing the hand signal must:
(a) be in continuous visual communication with the flight crew throughout the pushback
(b) display the ‘Set Brakes’ hand signal
(c) receive confirmation from the flight crew when they display the ‘Brakes’ hand signal in response
(d) display the ‘Chocks Removed’ hand signal
(e) receive confirmation from the flight crew. Do not remove chocks until confirmation of the flight crew is received

4.12.3 Action Prior to Departure
Prior to departure of the aircraft, make sure that:
△ (a) the ramp area is clear of all FOD and any equipment;
(b) the apron surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement;
(c) the ramp area is free of objects/obstacles which may be impacted by the aircraft or may endanger others due to jet blast effects;
(d) all persons not involved in the aircraft departure operation must remain clear of the departing aircraft, behind the ERA;
(e) additional ground staff such as Wing Walkers are present (if applicable/required);
(f) verbal communication with flight crew is established by means of an interphone system, departures using marshalling hand signals without any headset communication are only conducted in exceptional cases.

Note: Prior to connecting the tractor to the aircraft, the tractor may be parked in front of the aircraft or outside of the ERA, but never behind the wings.
### 4.12.4 Pre-Departure Table

**General**

Prior to aircraft movement, the responsible ground staff (headset operator) must ascertain that the following requirements are met:

Legend: TT—towbar tractor    TBL—towbarless tractor    PPU—powered push unit

<table>
<thead>
<tr>
<th>ACTION</th>
<th>APPLICABLE TO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PUSHBACK</td>
</tr>
<tr>
<td>The required Pre-Departure Servicing Checks are completed.</td>
<td>X</td>
</tr>
<tr>
<td>Fire protection devices are available and correctly positioned (as per local rules).</td>
<td>X</td>
</tr>
<tr>
<td>Communication with flight crew and ground staff is established via interphone system.</td>
<td>X</td>
</tr>
<tr>
<td>The path and area that the aircraft is moving towards is clear of objects (FOD) ensuring safe aircraft movement.</td>
<td>X</td>
</tr>
<tr>
<td>The stand surface condition is sufficiently free of ice, snow, etc., to ensure safe aircraft movement.</td>
<td>X</td>
</tr>
<tr>
<td>The GSE is outside the ERA, and Loading bridge is fully retracted (if applicable).</td>
<td>X</td>
</tr>
<tr>
<td>If an Air Start Unit is required, check the equipment is correctly positioned and suitable for the operation</td>
<td>X</td>
</tr>
<tr>
<td>Wing Walkers are present (if applicable).</td>
<td>X</td>
</tr>
<tr>
<td>The air intake and blast areas of the aircraft engines are clear of persons and obstacles, such as ground support equipment.</td>
<td>X</td>
</tr>
<tr>
<td>The bypass pin is installed correctly or nose gear steering torque links are disconnected. (if applicable)</td>
<td>X</td>
</tr>
<tr>
<td>All persons involved in the aircraft movement stay well clear of the danger areas around the tractor, landing gear and aircraft engines.</td>
<td>X</td>
</tr>
<tr>
<td>A qualified brake operator is in the cockpit.</td>
<td>X</td>
</tr>
<tr>
<td>Wheel chocks are not removed from MLG until Flight Deck has confirmed that Aircraft parking brake is set, the tractor is fully secured to NLG and the parking brake of the tractor is set.</td>
<td>X</td>
</tr>
<tr>
<td>Wheel chocks are not removed from the NLG until the powered push unit (PPU) is fully secured to the MLG and its parking brake is set.</td>
<td>X</td>
</tr>
<tr>
<td>The tractor and shearpin combination (if applicable) are suitable for the operation, considering the aircraft type and weight, the weather and surface conditions.</td>
<td>X</td>
</tr>
</tbody>
</table>

**Note:** Powerback is not a recommended procedure.
4.12.5  Pre-Departure Check

4.12.5.1  Pre-Departure Walk Around Check
The pre-departure walk around check includes, but is not limited to, ensuring the following:
(a) The apron is clear of all FOD items that may cause aircraft damage or pose a risk.
△ (b) All GSE and passenger boarding devices are detached.
△ (c) The stand area is clear of obstructions. GSE and vehicles are positioned clear of the aircraft path.
△ (d) Adequate clearance exists between the aircraft and facilities or fixed obstacles along the aircraft movement path.
△ (e) All aircraft servicing panels and/or hatches are closed and secured (except - external power and headset panels).
(f) Cabin/cargo doors
   1. handles are flush with the fuselage;
   2. there is no visible damage on the aircraft, particularly around cabin and cargo doors.
(g) Any abnormalities on the aircraft observed (e.g. obvious damage, fluid leakage) are immediately brought to the attention of the pilot in command and maintenance.
(h) Landing gear safety pins are removed.
(i) There are no obvious signs of unmarked dents or other skin panel damage.

⚠️ Caution: If any of the above conditions or actions are not met, inform your supervisor, maintenance and the pilot in command. This may affect the safety of the intended flight.

4.12.6  Communication Requirements

4.12.6.1  Communication During Engine Start
Coordinate the engine starting sequence with the flight crew by conducting a pre-departure 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 you observe circumstances that require immediate notification and action by the flight crew.
△ (b) In case of starting up with an ASU, supply the pressure at the request of the flight crew.
△ Note: For ground staff in front of the aircraft, facing the aircraft nose, the aircraft engines are identified, from right to left. (Engine number 1 being the first engine from the right is always on the captains side).

4.12.6.2  Communication During Engine Fire
Engine Fire
△ The Flight Crew normally detects an engine or APU fire and will take action using the engine fire extinguishing system. However, alert the flight crew immediately via the headset if flames are noticed from the engine or engine pylon.
△ In the event that an headset is not available, the appropriate “Fire” hand signal must be used. (Refer to the Marshalling Hand Signals section in this chapter)
Tailpipe/Exhaust Fire
If you notice flames from the engine tailpipe during engine starting, 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.
4.12.7 Departure Communication

Departure communication outlined in this section is a basic standard for both pushback and open ramp (taxi out) departures. Certain airlines may have specific requirements in their departure communications which may vary. If available, refer to the operating airline’s GOM otherwise this communication standard shall apply. This specific dialogue does not forbid the exchange of additional important information between flight crew and ground staff using non-standard phraseology (e.g. request for authorization to disconnect ground support units etc.).

Note: If the pushback must be stopped, the following call will be made: STOP PUSH BACK.

Where applicable, use “pull out” instead of “pushback”.

Only engage the towbarless tractor and lift the aircraft once the passenger boarding device has been removed from the aircraft and the flight crew has requested for pushback.

4.12.7.1 Departure Communication Dialogue

The dialogue is a sample communication to be used for a departure:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Dialogue between Ground Staff and Flight Crew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call</td>
<td>Ground Staff</td>
</tr>
<tr>
<td>Preparation</td>
<td>CONFIRM PARKING BRAKES ARE SET.</td>
</tr>
<tr>
<td></td>
<td>BYPASS PIN INSTALLED &amp; CLEARED TO PRESSURIZE (IF APPLICABLE)</td>
</tr>
<tr>
<td>After completion of the pre-departure servicing checks</td>
<td>PRE-DEPARTURE CHECKS COMPLETED, GROUND READY (TOWBARLESS) CLEAR TO START ENGINE(S) (FOR OPEN RAMP DEPARTURE ONLY)</td>
</tr>
<tr>
<td></td>
<td>(except main gear pushback)</td>
</tr>
<tr>
<td>Pushback [and engine start]</td>
<td>RELEASE PARKING BRAKES or LIFTING COMPLETED, RELEASE PARKING BRAKES (TOWBARLESS)</td>
</tr>
<tr>
<td></td>
<td>COMMENCING PUSHBACK [AND CLEAR TO START ENGINE(S)...]</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushback completed</td>
<td>PUSHBACK COMPLETED, SET PARKING BRAKES.</td>
</tr>
<tr>
<td></td>
<td>Tractor is disconnected and positioned in view of the flight deck.</td>
</tr>
<tr>
<td>Clearance to Taxi</td>
<td>DISCONNECTING, HOLD POSITION AND WAIT FOR VISUAL SIGNAL ON YOUR LEFT/RIGHT. Disconnect headset and give the ‘All Clear’ hand signal. (‘All Clear’ signal includes showing the steering bypass pin)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: In case of taxi in/taxi out, the following phases in the subsequent table will not be made: “Pushback” and “Pushback Completed”.
### 4.12.7.2 Items to be Communicated between Ground Staff and Flight Crew

<table>
<thead>
<tr>
<th>Phase</th>
<th>Task</th>
<th>Ground Staff Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departure Preparation</td>
<td>GPU removal</td>
<td>When instructed by flight crew, remove GPU.</td>
</tr>
<tr>
<td></td>
<td>Towbar/Towbarless Tractor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>connection</td>
<td>(a) Get confirmation that the aircraft's parking brake is set.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Get confirmation that the nose wheel steering is depressurized or advise flight crew that the bypass pin is inserted (if applicable)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) Connect the Towbar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(d) Connect the Towbarless tractor.</td>
</tr>
<tr>
<td>Chock removal</td>
<td></td>
<td>(a) Get confirmation from flight crew that aircraft parking brakes are set.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Remove chocks</td>
</tr>
<tr>
<td>Pre-departure check</td>
<td></td>
<td>Advise the flight crew that the pre-departure check has been completed or communicate any discrepancies.</td>
</tr>
<tr>
<td>Engine Start</td>
<td>Starting engines</td>
<td>When requested by the flight crew, advise when the engines may be started and the start sequence</td>
</tr>
<tr>
<td></td>
<td>ASU</td>
<td>When requested by the flight crew, signal to the ASU operator to supply the required pressure.</td>
</tr>
<tr>
<td>Pushback [and engine start]</td>
<td>Brakes</td>
<td>Get confirmation that aircraft's parking brakes have been released.</td>
</tr>
<tr>
<td></td>
<td>Movement of the aircraft</td>
<td>Get permission from flight crew, to commence the pushback.</td>
</tr>
<tr>
<td></td>
<td>(pushback/pull out)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direction of push/nose</td>
<td>If applicable, ask in which direction the aircraft has to be pushed/in which direction the nose should point after pushback.</td>
</tr>
<tr>
<td>Engine start</td>
<td></td>
<td>When requested by the flight crew, advise when the engines may be started.</td>
</tr>
<tr>
<td>Pushback completed &amp;</td>
<td>Towbar/Towbarless Tractor</td>
<td>(a) Get confirmation that the aircraft's parking brake is set.</td>
</tr>
<tr>
<td>Engine start completed</td>
<td>disconnect</td>
<td>(b) Disconnect the towbar.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) Remove the steering bypass pin–where applicable.</td>
</tr>
<tr>
<td>Headset removal</td>
<td></td>
<td>(a) Get permission from flight crew to disconnect the headset.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Advise flight crew to hold position and wait for visual signal at left/right of the aircraft.</td>
</tr>
<tr>
<td>Departure</td>
<td>“All Clear” signal</td>
<td>(a) Display the steering bypass pin–where applicable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Give the “All Clear” signal when the path of the aircraft is clear of all obstacles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) Get acknowledgement of “All Clear” signal.</td>
</tr>
</tbody>
</table>
4.12.7.3 Departure Communication without Interphone

An aircraft departure must always be conducted using interphone communications. In the event that the interphone becomes unserviceable or under extreme circumstances where the interphone is not available, you must use conventional hand signals (see IGOM 4.8.4 and 4.8.5) for the departure (not applicable to main gear pushback unit departures).

Prior to departure a briefing must be held between the Captain and the ground agent responsible for the departure, including:
(a) Review of departure specifics, e.g. direction of movement, final positioning, and taxi out direction;
(b) The hand signals to be used, including emergency signals.

Caution:
Read back all given instructions or acknowledge them in a manner clearly indicating that they have been understood and will be complied with.

4.12.8 Preparation for Pushback
(This section is also applicable to pull-out using applicable equipment)

4.12.8.1 Pre Departure Communication

An aircraft departure must always be conducted using interphone communications. In the event that the interphone becomes unserviceable, you must use conventional hand signals (see IGOM 4.8.4 and 4.8.5) for the departure (not applicable to main gear pushback unit departures).

Prior to departure a briefing must be held between the Captain and the ground agent responsible for the departure, including:
(a) Review of departure specifics, e.g. direction of movement, final positioning, and taxi out direction;
(b) The 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.

4.12.8.2 Connecting the Pushback Vehicle

The pushback vehicle is connected as follows:
(a) Aircraft main gear chocks installed, nose gear chocks removed--if applicable;
(b) Approach nose gear to centerline of fuselage
(c) Use a spotter to assist in the final approach to nose gear:

1. Tractor & Towbar:
   (i) Connect towbar to nose gear first.
   (ii) Raise towbar so that its head is at same height as the tractor connection.
   (iii) Approach slowly until connection aligns and secure connection to tractor
   (iv) Raise tobar wheels
   (v) Select “Neutral” or “Park” and set parking brake of tractor

2. Towbarless tractor:
   (i) On final approach to aircraft, the tractor must be properly aligned.
   (ii) Position Towbarless tractor to standby for lifting and wait for clearance from flight deck to lift and wait for approval from flight deck to lift
   (iii) Select “Neutral” or “Park” and set parking brake.

Caution:
Do not remove the main landing gear chocks until:
all GSE--with the exception of the boarding passenger stairs(s), GPU, PCA, and ASU is removed from the aircraft, the pushback vehicle is connected to the aircraft and the parking brakes of both the pushback vehicle and the aircraft are set.
4.12.9 Aircraft Pushback
(This section is also applicable to pull-out using applicable equipment)

4.12.9.1 Pushback Requirements
All staff walking on ramp must remain clear of:
(a) aircraft nose gear throughout the pushback operation;
(b) the tractor's path;
(c) engine danger areas.

4.12.9.2 Pushback & Pull Forward
If an aircraft is to be pulled forward after pushback and engines started, special precautions must be taken to reduce the risk of the aircraft's engine thrust causing damage to the nose gear and towbar when stopping the aircraft at completion of maneuver.

Caution:
When using a towbarless tractor:
Do not lift the aircraft when loading equipment and/or a passenger boarding device is still connected to the aircraft.

4.12.9.3 Ground Crew in Charge of Pushback
Ground Crew Responsibility
The responsible ground crew is defined as the person performing the communications with the flight crew.
A responsible ground crew must be in charge of each aircraft pushback. This function can be performed by different agents in different roles and positions. Refer to the operating airline’s GOM for the specific assignment of this duty.

Responsible ground crew for the departure will:
(a) be in charge of the entire pushback, once clearance to begin pushback has been given by the flight crew;
(b) ensure that the towbar/shearpin/towbarless 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) be in continuous communication with flight crew by interphone;
(e) have ultimate responsibility to review pushback procedures based on conditions he/she observes and must inform the flight crew:
(f) if ramp conditions are below standard for a normal pushback (e.g. hazards, obstacles, slippery or icy) then:
   (i) the aircraft is moving over an area of the ramp where the conditions are considered to be safe for an engine start;
   OR
   (ii) the pushback has been completed, the aircraft has come to a complete stop and the parking brake has been set;
(g) ensure that the nose gear steering bypass pin is installed prior to towbar connection to aircraft;
(h) connect the interphone and conduct a communication check to:
   1. verify the communication system is functional;
   2. update flight crew on progress of the ramp operation;
   3. request permission & disconnect ground power after verbal approval is received from flight crew.
(i) conduct a Pre-Departure walkaround;
(j) signal “All Clear” to pushback tractor driver and wingwalkers (if applicable) once advised by flight crew that the aircraft brakes have been released and approval for pushback given by Flight Crew;
(k) be positioned as required by operating airline’s GOM, either inside tractor or walking on apron adjacent to nose gear

Danger:
If walking adjacent to nose gear: walker and tug driver must be in visual contact throughout the pushback. After approval of flight crew, the tug driver must always assure taxiway is free of other aircraft/equipment/obstacles.

(l) monitor the interphone during the pushback and communicate with the flight crew as required;
(m) advise the flight crew if for any reason it is not safe to start an engine and stop the engine start (the flight crew may advise as each engine is being started);
(n) advise the flight crew to set aircraft brakes at end of pushback. Once confirmation from the flight crew has been received, give the brakes set signal to the tractor driver and wingwalkers (if applicable);
(o) Give visual signal to the tractor driver and wingwalkers (if applicable) that it is clear to disconnect towbar after flight crew advises that engines were started normally and the ramp is clear to disconnect the towbar.
Disconnect the headset and close the access panel on the aircraft once the approval to disconnect has been given by flight crew and the towbar has been disconnected.

Remove the nose gear steering bypass pin (if applicable) and ensure the swing lever is returned to the proper position.

After headset, towbar and steering bypass pin are removed, close and latch all access panels and then move to designated position to conduct final departure marshalling.

Show the steering bypass pin to the flight crew and give the “All Clear to Taxi” signal.

Give the “All Clear to Taxi” signal 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.

Remain in position until an acknowledgement from the flight crew is received and the aircraft begins to taxi

Caution:
The flight crew (or brake operator) must be notified immediately:
in the event any connection between the tractor and the aircraft is lost during aircraft movement;
to stop the aircraft movement using gentle brake application if the aircraft is about to overtake the tractor while towing.

Danger:
If the nose wheels are not in the centered position, they can turn quickly to their centered position when the bypass pin is removed. Personnel injury or aircraft damage could result.
Do not disconnect the interphone communication cable until the towbar (or towbarless tractor) has been disconnected from the nose gear

4.12.9.4 Wingwalker

Wingwalkers or other assist personnel during a pushback is not an international requirement.

The operating airline’s GOM establishes requirements. The presence of such personnel may also be controlled or restricted by civil aviation authorities or local airport authorities.

If wingwalkers are not being utilized in the operation for any of the above reasons, all references in this section of IGOM shall be ignored.

Wingwalker or other assist personnel must:
(a) Be under the direction of the responsible ground crew at all times;
(b) Use 2 marshalling wands, either day-wands or illuminated wands for low visibility operations;
(c) Be positioned before and during movement of aircraft as follows:
   1. Approximately 1 metre outboard of the wingtip;
   2. In line with the rearmost main gear wheel.
(d) Ensure the aircraft movement path is clear of any obstructions, other aircraft, vehicles etc;
(e) Provide “Safe to Proceed” clearance signals at all times to the person responsible for pushback by using a distinct “Pendulum” motion of the arm;
(f) Must be in visual contact with person responsible for pushback/towing;
(g) Continue to monitor the aircraft path until the aircraft is stopped at the departure point;
(h) Position themselves in clear visibility of the flight crew on the terminal side, at a safe distance away from the aircraft (either at the 11 o’clock or 1 o’clock position);
(i) give the “AIRCRAFT HOLD” signal to the flight crew when the visual “Brakes Set” signal has been received from the person responsible for pushback. (Crossed wands may be over head or in front of chest);

(j) Remain in position until the responsible ground crew walks over to take over the marshalling clearance of the aircraft;
(k) Return to terminal once marshalling duty has been transferred.

4.12.9.5 Tractor Driver

The pushback tractor driver will:

(a) Align the tractor or tractor and towbar combination with the center line of the aircraft before the aircraft movement;
(b) Completely raise the towbar wheels before the start of the aircraft movement (if used);
(c) Standby for clearance to push communication from flight crew or responsible ground crew;
(d) Select appropriate gear on tractor and slowly begin movement;
(e) Prior to the aircraft movement, make sure that the parking brakes are released and the anti-collision lights are switched on (depending on the local airport regulations);
(f) Start the pushback operation on a straight line;
(g) Keep the maneuvering speed to a minimum, and apply the vehicle brakes gently;
(h) Scan the apron during pushback, monitor clearances and wingwalkers (if applicable) to ensure that aircraft is moving clear of all obstructions. Be prepared to stop;
(i) Ensure during pushback the steering turn limits are not exceeded and advise flight crew if any are exceeded. Damage to nose gear will occur. Refer to the operating airline's GOM for the specific limits and how they are marked on the aircraft;
(j) If responsible ground crew on interphone is walking on ramp, maintain visual contact and ensure a safe distance is maintained from the nose gear during entire pushback;
1. If the responsible ground crew is too close to the nose gear, the pushback must be stopped and a review of the required safety clearance conducted.
(k) Set brakes on the tractor once pushback is completed;
(l) Maintain the brakes on the pushback until the release signal is received from the flight crew or responsible ground crew on interphone;
(m) Wait for flight crew or responsible ground crew on interphone to give the “Aircraft Brakes Set” signal;
(n) Release the tractor brakes and put the gear selector in “Neutral” after aircraft brakes have been set, to release any pressure on the towbar;
(o) Position the tractor in the aircraft’s path and be visible to the flight crew (if possible) after the towbar has been disconnected from the tractor;
(p) Remain in position visible to the flight crew until the headset operator has disconnected and is in view of the flight crew;
(q) Drive tractor back to terminal or appropriate parking position.

Caution:
If the nose wheels are not in the centered position, they can turn quickly to their centered position when the bypass pin is removed. Personnel injury could result.

4.12.10 Open Ramp Departure

(a) Complete all pre-departure checks.
(b) Refer to departure communication section and follow required phases of dialogue.
(c) Ensure all staff and equipment is clear of the aircraft 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).
4.12.11 Maneuvering During Adverse Weather Conditions
During adverse weather conditions (fog, rain, etc.) visibility and traction will be affected.
The Tractor Driver must reduce and adapt vehicle speed as required by the present conditions.

4.12.11.1 Icy Conditions
When maneuvering the aircraft on slippery apron surfaces, extreme caution is required to avoid losing control of the tractor due to skidding. Many elements can contribute to the hazards involved such as strong winds, slippery road surfaces, pavement slopes etc.
Observe the following minimum precautions:
(a) Avoid sudden turns, deceleration or acceleration.
(b) Except when using an Air Start Unit, do not start aircraft engines unless:
   1. the condition of the pavement is such that reasonable traction is ensured;
   2. the aircraft parking brakes are set and the aircraft is disconnected from tow tractor/towbarless tow tractor.

4.12.12 Nose Gear Steering
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.

Danger:
The bypass pin must be:
- labeled with the specific aircraft type(s) for which it can be used;
- identified with a “Remove Before Flight” streamer;
- checked regularly for proper technical condition, or as per manufacturer instructions.

4.12.12.1 Nose Gear Protection and Steering Angles
In order to protect the nose gear from damage, visual turning limit markings indicate the aircraft’s maximum nose gear steering angles. Refer to the operating airline’s GOM for details.

Danger:
In the event of exceeding the maximum nose gear steering angle, inform the maintenance department and flight crew, if applicable, and request a technical inspection. The aircraft must return to the parking stand in order to check whether the gear is damaged.
When using a towbarless tow tractor equipped with either an over steer warning or over steer protection device, verify the visual turning limit markings at all times to prevent exceeding the maximum nose gear steering angle. When using a towbarless tractor on an aircraft, the “over steering” or “over torque” system of the tractor must be operative.

4.12.13 Anti-Collision Lights
On 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 must stop until the aircraft has departed from the area.

4.12.14 Engine Cross Bleed Start
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.

4.12.15 Re-Establishing Communication After Departure
This procedure is to be used in case the ground staff or flight crew wishes to re-establish interphone communication after it has been disconnected.
4.12.15.1 Initiated from the Cockpit
The flight crew sets the parking brake and re-establishes communication with ground staff via company channel or ATC. If visual communication with responsible ground agent is still established then visual signals may be used.

4.12.15.2 Initiated from the Ground
If ground staff needs to re-establish communication with the aircraft after dispatch, do NOT approach the aircraft. If communication cannot be established using hand signals, make contact via company channel or through ATC.
When preparing to re-establish communication with aircraft, take the following precautions:
(a) Make sure you have been seen by the flight crew and the intention to approach the aircraft to re-establish interphone communication is understood.
(b) Approach the aircraft from the direction where visual contact with the flight crew is maintained as long as possible.
(c) Only the person establishing the interphone communication shall approach the aircraft.
(d) Stay outside the aircraft’s engine danger area when approaching the aircraft.
(e) If possible, position pushback tractor in front of aircraft in clear view of 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.

4.12.16 Interphone Communication Failure
Aircraft pushback requires a communication interphone. In the event the interphone becomes unserviceable or communications is lost, the following procedure must be followed:
(a) In case of a single person operation and if no other means of communication are available, stop the movement (depending on local situations and regulations) and immediately request assistance to continue the movement.
(b) In case of multiple person operation then communication with the flight crew will be established using hand signals as described in this chapter. The tractor driver must 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 ATC (if radio available) and continue the movement in co-operation with ATC, depending on local regulations.

4.12.16.1 Interphone Failure During Towing
If during the tow the interphone fails, the tow must immediately be stopped and an alternate means of communication established before continuing. If this is not possible, assistance must be requested.

4.13 Aircraft Towing

4.13.1 Aircraft Towing Requirements
The following requirements must be met to perform an aircraft tow:
(a) Ensure hydraulic system pressure for aircraft braking and/or the brake accumulator is within required pressure range. Refer to the operating airline’s GOM for each aircraft type for more detail.
(b) Ensure any required electrical systems for towing are energized.
(c) Ensure all gear safety pins/sleeves are installed, and after tow, ensure all pins are removed and stowed. Refer to each airline's GOM for procedures regarding gear lock pin responsibilities and requirements.
(d) Make sure a qualified brake operator is in the cockpit.
(e) Establish communication with the brake operator by means of the interphone system.
(f) Make sure wheel chocks are positioned at the end of the maneuver, prior to disconnecting the towbarless tow tractor or towbar.

Caution:
Inform the brake operator/flight crew and/or contact the maintenance department for technical inspection if you: observe any type of excessive fluid leakage; notice any signs of unmarked aircraft damage; observe any fault, failure, malfunction or defect which you believe may affect the safe operation of the aircraft for the intended flight.
4.13.2 Towing Maneuvering

The towing maneuvering procedure is similar for all aircraft types. The following minimum safety precautions and procedures must be followed prior to and during aircraft towing operations:

(a) Align the tractor or tractor and towbar combination with the center line of the aircraft before the aircraft movement.
(b) Completely raise the towbar wheels before the start of the aircraft movement (if used).
(c) Prior to the aircraft movement, make sure that the parking brakes are released and the anti-collision lights are switched on (depending on local airport regulations).
(d) Wait for the authorization of the flight crew or brake operator before moving the aircraft.
(e) Start the pushback operation on a straight line.
(f) Keep the maneuvering speed to a minimum, and apply the vehicle brakes gently.
(g) Do not exceed the towing speed limit as regulated by the towing equipment, aircraft and/or airport.
(h) Use relevant apron lines as guidance during maneuvering to ensure safe obstacle clearance.
(i) Keep a minimum safety distance between vehicles sufficient in which to stop.
(j) Stop 50 m/55 yd before a taxiway intersection, if a stop is required.
(k) Avoid sharp turns, which results in excessive tire scrubbing.
(l) Make all stops smoothly.
(m) When arriving at the allocated position, move the aircraft in a straight line for a few meters to ensure that the nose wheels are in the straight ahead position. This relieves any torsional stress applied to landing gear components and tires.
(n) Apply the tractor parking brake after a complete stop.

Note: Some of these precautions may not be applicable to towbarless vehicles.

4.13.2.1 Towing Preparation

The following checklist is to be used in preparation for an aircraft tow.

<table>
<thead>
<tr>
<th>Action</th>
<th>Performed by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brake Operator</td>
</tr>
<tr>
<td>Apply the cockpit checklist for towing. Refer to the operating airline’s GOM for details.</td>
<td>✔</td>
</tr>
<tr>
<td>Connect and test the interphone link.</td>
<td>✔</td>
</tr>
<tr>
<td>Insert the bypass pin.</td>
<td>✔</td>
</tr>
<tr>
<td>Give permission to connect the towbar and tractor or towbarless tractor after applying the aircraft parking brake.</td>
<td>✔</td>
</tr>
<tr>
<td>Connect the towbar; first to the aircraft, then to the tractor.</td>
<td>✔</td>
</tr>
<tr>
<td>Before connecting the towbarless tractor, ensure the aircraft main landing gears are symmetrically chocked.</td>
<td></td>
</tr>
<tr>
<td>Connect the tractor or towbarless tractor and set the parking brake.</td>
<td>✔</td>
</tr>
<tr>
<td>Once all GSE has been cleared away from the aircraft, remove or check removal of aircraft chocks.</td>
<td>✔</td>
</tr>
<tr>
<td>Switch on the external and anti-collision lights of the aircraft.</td>
<td>✔</td>
</tr>
<tr>
<td>Contact the Control Tower for clearance to start moving the aircraft (depending on local regulations).</td>
<td>✔</td>
</tr>
<tr>
<td>After receiving the clearance, release the aircraft parking brake.</td>
<td>✔</td>
</tr>
<tr>
<td>Give clearance to the Tractor Driver to start moving the aircraft.</td>
<td>✔</td>
</tr>
<tr>
<td>Request confirmation from the Brake Operator that the aircraft parking brake has been released.</td>
<td>✔</td>
</tr>
<tr>
<td>Conduct tow.</td>
<td></td>
</tr>
</tbody>
</table>
### 4.13.2.2 Towing Completion

The following checklist is to be used at the end of an aircraft tow.

<table>
<thead>
<tr>
<th>Action</th>
<th>Performed by</th>
</tr>
</thead>
</table>
| Set tractor parking brake.                                             | Brake Operator
| Request Brake Operator to set the aircraft parking brake.             | ✓            |
| Inform the Control Tower 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 main landing gear.                                  | ✓            |
| Switch off the external and anti-collision lights of the aircraft.     | ✓            |
| Inform Brake Operator: AIRCRAFT CHOCKED.                              | ✓            |
| Request permission from Brake Operator to disconnect the towbar or towbarless tractor. | ✓            |
| Give permission to disconnect the towbar or towbarless tractor.        | ✓            |
| Disconnect the towbar or towbarless tractor and remove the bypass pin. | ✓            |
| Chock the aircraft.                                                    | ✓            |
| Inform: TOWBAR/TRACTOR DISCONNECTED.                                  | ✓            |
| Release the aircraft parking brake and inform: PARKING BRAKE OFF.      | ✓            |
| Check and inform: AIRCRAFT STABILIZED.                                | ✓            |
| After permission from the Brake Operator, shut down and disconnect the tractor GPU. | ✓            |
| Install and connect a GPU.                                            | ✓            |
| Remove and stow gear safety pins in the dedicated location.           | ✓            |
4.13.3 Incidents During Towing

<table>
<thead>
<tr>
<th>Brake Operator</th>
<th>Tractor Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VHF Communication Failure</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Stop aircraft/tractor set immediately.</td>
<td>(a) Stop aircraft/tractor set.</td>
</tr>
<tr>
<td>(b) Apply tractor parking brake.</td>
<td>(b) Inform ATC (towbarless towing with one man operation).</td>
</tr>
<tr>
<td>(c) Advise Towing Regulation and wait for assistance (Follow me before completing the towing).</td>
<td>(c) Apply tractor parking brake.</td>
</tr>
<tr>
<td><strong>Tractor Failure</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Inform ATC.</td>
<td>(a) Stop aircraft/tractor set.</td>
</tr>
<tr>
<td>(b) Apply parking brake.</td>
<td>(b) Inform ATC (towbarless towing with one man operation).</td>
</tr>
<tr>
<td>(c) Listen to VHF and wait for assistance.</td>
<td>(c) Apply tractor parking brake.</td>
</tr>
<tr>
<td>(d) Chock the aircraft.</td>
<td>(d) Chock the aircraft.</td>
</tr>
<tr>
<td>(e) Listen to VHF (towbarless towing with one man operation).</td>
<td></td>
</tr>
<tr>
<td><strong>Coupling Break Off</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Brake the assembly by stepping on both brake pedals progressively.</td>
<td>(a) Do not apply tractor brakes.</td>
</tr>
<tr>
<td>(b) As soon as the aircraft is at a standstill, apply the parking brake before releasing the pedal.</td>
<td>(b) Follow the aircraft path attentively and stop the tractor according to the aircraft position.</td>
</tr>
<tr>
<td>(c) Chock the aircraft.</td>
<td></td>
</tr>
<tr>
<td><strong>Tractor Fire</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Inform ATC.</td>
<td>(a) Inform the Brake Operator.</td>
</tr>
<tr>
<td>(b) Apply parking brake.</td>
<td>(b) Stop aircraft/tractor set immediately.</td>
</tr>
<tr>
<td>(c) Move tractor away as rapidly as possible.</td>
<td>(c) Chock the aircraft.</td>
</tr>
<tr>
<td>(d) Fight the fire, using the fire extinguisher.</td>
<td>(d) Fight the fire, using the fire extinguisher.</td>
</tr>
<tr>
<td>(e) Chock the aircraft.</td>
<td></td>
</tr>
<tr>
<td><strong>Aircraft Fire</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Inform ATC.</td>
<td>(a) Stop aircraft/tractor set immediately.</td>
</tr>
<tr>
<td>(b) Apply the parking brake.</td>
<td>(b) Stop aircraft/tractor set immediately.</td>
</tr>
<tr>
<td>(c) Fight fire with the on board fire extinguisher.</td>
<td>(c) Move tractor away as rapidly as possible.</td>
</tr>
<tr>
<td>(d) Evacuate the aircraft using on-board means, if required.</td>
<td>(d) Chock the aircraft.</td>
</tr>
<tr>
<td><strong>Accident with Other Aircraft or Vehicle</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Contact the Control Tower stating position and nature of trouble.</td>
<td>(a) Stop aircraft/tractor set immediately.</td>
</tr>
<tr>
<td>(b) Listen to VHF and wait for assistance.</td>
<td>(b) Apply tractor parking brake.</td>
</tr>
<tr>
<td></td>
<td>(c) Advise towing regulation.</td>
</tr>
<tr>
<td></td>
<td>(d) Do not unload or disconnect the aircraft.</td>
</tr>
<tr>
<td></td>
<td>(e) Chock the main landing gear.</td>
</tr>
</tbody>
</table>

The Tractor Driver and Brake Operator must continuously keep each other informed.

4.13.4 Towing Limits
(a) Fuel and other loads can affect an aircraft’s balance. To avoid “tail tipping” during towing, ensure that the actual centre of gravity of the aircraft is forward of the critical centre of gravity. If you are unable to determine this, then you must request assistance from a qualified weight and balance agent of the operating airline.

(b) Refer to the operating carriers GOM for respective aircraft type specific instructions for further details.
Chapter 5: Load Control

5.1 Load Control Principles
The safety of a flight requires accurate planning, recording and reporting of all actual load boarded on an aircraft. Documented communication is required to ensure correct weight & balance calculations are conducted prior to an aircraft’s departure.

5.2 Regulatory Requirements
Operational load control records must be retained in accordance with all applicable regulatory and operating airline requirements to include:
(a) Training and qualification records for personnel that perform load control functions;
(b) Load control documentation for each flight in accordance with requirements of the operating airline;
The Load Control process must have an audit trail for each departure.
(a) Weight and balance records must be retained for a period in accordance with applicable regulations and/or requirements of the operating airline, but no less than a period of three months.
(b) The operating airline will identify specific loading positions within each aircraft type for the purpose of planning and positioning the load in the aircraft.
(c) The operating airline will specify requirements for presenting load information in load documents, reports and messages.
(d) Forms used in the Load Control process must be in compliance with the operating airline’s Operations manual.
(e) All scales (weighbridges) used for weight determination of load and clearance measuring systems must be calibrated and/or checked at intervals determined by the operating carrier or state.
5.3 Load Control Process Flow
5.3.1 Load Control Process Flow Legend: (Actions in Triangles Above are Defined Below)

<table>
<thead>
<tr>
<th>TRIANGLE #</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cargo to aircraft.</td>
</tr>
<tr>
<td>2.</td>
<td>Mail to aircraft.</td>
</tr>
<tr>
<td>3.</td>
<td>Mail weight/destination/category/DG/Special Load information to Load Control Office.</td>
</tr>
<tr>
<td>4.</td>
<td>Cargo weight/destination/category/DG/Special Load information to Load Control Office.</td>
</tr>
<tr>
<td>5.</td>
<td>ZFW/Aircraft registration/Route to Flight Planning System.</td>
</tr>
<tr>
<td>6.</td>
<td>Flight plan including Take-off/Trip-Fuel/Maximum Gross Weights to Flight Dispatch/Load Control Office.</td>
</tr>
<tr>
<td>7.</td>
<td>Transfer passenger number/category/destination/class/status to Load Control Office.</td>
</tr>
<tr>
<td>8.</td>
<td>Transfer baggage weight/number/category/destination/class and any special information to Load Control Office.</td>
</tr>
<tr>
<td>9.</td>
<td>Local baggage weight/number/category/destination/class and any special information to Load Control Office.</td>
</tr>
<tr>
<td>10.</td>
<td>Local Passengers number/category/destination/class/status to Load Control Office.</td>
</tr>
<tr>
<td>11.</td>
<td>Baggage weight/number/category/destination/class and any special information to Load Control Office.</td>
</tr>
<tr>
<td>12.</td>
<td>Baggage to aircraft.</td>
</tr>
<tr>
<td>13.</td>
<td>Passengers to aircraft.</td>
</tr>
</tbody>
</table>

*Note: Actions and items not in chronological order.*

5.4 Load Control Requirements

Loading instructions will be generated by:
(a) The applicable operator's approved weight & balance system;
(b) A trained load control agent; including at a centralized load planning facility.

The load control agent must collect all applicable weight & balance and commodity data including:
(a) Passenger Load Information and distribution;
(b) Hold baggage and if applicable individual or cumulative weights;
(c) Gate delivery items, including individual or cumulative weights;
(d) Other non-normal items that must be considered in the load control process;
(e) Dangerous goods and other special load information;
(f) Cargo and mail;
(g) Ballast;
(h) Empty ULD and/or pallet stacks;
(i) Aircraft technical kit in hold.

The responsibility for completion of the final load sheet must be by one of the following:
(a) A trained load control agent at the station or at a centralized Load Control office;
(b) The operating Flight Crew.

Ensure the final information provided to the flight crew on the final load sheet is in agreement with the actual load on the aircraft.

5.5 Load Information Exchange

Before departure, a verbal exchange of load information or data that could affect aircraft final weight and balance calculations must be:
(a) Manually or electronically documented;
(b) Confirmed prior to flight departure.

Ensure that for any discrepancies associated with the accuracy of the final weight and balance figures for a flight:
(a) Information is provided to the flight crew and the operating airline without delay.
5.6 Load Planning
The following considerations are used in the planning process:
(a) Type of aircraft prepared for service;
(b) Fuel load and distribution;
(c) Aircraft equipment, catering, EIC, crew etc.;
(d) Planned deadload;
(e) Expected passenger load and distribution;
(f) Aircraft manufacturer’s defined, and company imposed, limitations;
(g) Specific requirements of operating airline;
(h) Special load including IATA Dangerous Goods Regulations (DGR) etc.

5.6.1 Off-Load Planning
A LIR/OIR (manual or electronic) is issued prior to aircraft arrival for incoming/transit flights. Refer to upline CPM and/or LDM, and include the following:
(a) Baggage details (in handling sequence and priorities required by the operating airline);
(b) Cabin Load;
(c) Containers and pallets;
(d) Cargo, mail and EIC;
(e) Mobility aids for gate delivery;
(f) Summary of DG/SL;
(g) Any relevant plain language text/instruction if required;
(h) Flight details, which may include date, registration, issue number, etc.;
(i) Any other requirements of the operating airline.

5.6.2 On-Load Planning
A signed LIR (manual or electronic) is issued for each flight and includes the following:
(a) Load planner or controller and contact details;
(b) Hold content instructions;
(c) Planned baggage;
(d) Planned cargo, mail and EIC;
(e) Mobility aids;
(f) Priority baggage;
(g) DAA baggage if applicable;
(h) Crew baggage (for placement and not weight recording);
(i) Transfer or connection baggage;
(j) Summary of Dangerous Goods/Special Loads;
(k) Flight details, which may include date, registration, issue number, etc.;
(l) Any other requirements of the operating airline.

5.6.3 Baggage ULD Requirement
Calculate the baggage ULDs required using the average number of bags and commodities for the route/aircraft type. Use average bags per booked passenger and average number of bags per ULD.
Obtain Cargo weight, volume and contents. Where possible, plan so as not to obstruct passenger baggage offload at arrival station.
Block any unusable ULD positions based on any operating airline requirements (e.g. extra fuel tanks, catering equipment or fly-away kits etc.).

5.7 Aircraft Loading
Before loading, the hold shall be visually inspected for damage that can affect the load capacity.
A qualified individual must supervise the loading of the aircraft and provide a signed confirmation to say:
(a) The aircraft has been loaded as instructed—including any special load instructions;
(b) The condition of locks, restraints or ULDs has not affected load capacity;
(c) The bulk load and ULDs are correctly secured and locks and nets are in use;
5.8 Reporting Actual Load

5.8.1 Containerized Aircraft
All commodities must be reported/recorded per destination on the Load Instruction report (LIR) including:
(a) the total number of bags (if utilized by operating carrier) and commodities in each ULD and bulk hold (e.g. local, connection, priority);
(b) the position of each ULD and its identification number;
(c) cargo gross weight (in Kgs);
(d) DG/SL information;
(e) crew bag count;
(f) any other specialized information required by the operating airline.

5.8.2 Bulk Loaded Aircraft
All commodities must be reported/recorded per destination on the Loading Instruction report (LIR) including:
(a) the total numbers of bags and commodities in each compartment (e.g. local, connection, priority);
(b) cargo net weight (in Kgs);
(c) DG/SL information;
(d) crew bag count;
(e) any other specialized information required by the operating airline.

5.8.3 Last Minute Changes
If any Last Minute Changes (LMC) occurs after the completion of the final load sheet, this must be brought to the attention of the flight crew and the LMC must be entered on the final load sheet.
LMC includes:
(a) changes to the baggage counts and/or weights;
(b) changes to the cargo, fuel, mail and EIC weights;
(c) passengers that are added or offloaded from the flight;
(d) movement of any deadload.
The maximum allowed change in the number of passengers or hold load acceptable as a LMC is specified in the operating airline’s Operations Manual. If this number is exceeded, a new final load sheet must be prepared.
If the flight crew has already been provided with a final load sheet, the LMC can be transmitted via headset or VHF. The flight crew adds LMC on the original final load sheet copy and Load Control Agent adds LMC on his copy.
If ACARS is available, the adjusted final load sheet or LMC slip may be generated and transmitted to the crew using ACARS.

5.9 Notification to the Captain (NOTOC)
The flight crew must be provided with a notification concerning dangerous goods and any other special load as required by the operating airline (i.e. PER, AVI, HEG, HUM) onboard the aircraft in the form of a NOTOC (Notification to Captain).
(a) Such notification must include dangerous goods or other special load items that have been loaded on the aircraft at a previous departure point and that are to be carried on a subsequent flight.
(b) Transit or joining NOTOC is presented to the Captain.
(c) For changes or repositioning of transit dangerous goods or other special loads, a new NOTOC is issued.
(d) A separate NOTOC shall be prepared for each station enroute.
(e) The NOTOC must indicate the location on the aircraft where the Dangerous Good or special item was loaded.
(f) The NOTOC must contain the name and be signed by the individual who prepared the NOTOC, the loading supervisor and the Captain.
5.10 Weight and Balance Calculation
When applicable, a weight and balance pre-calculation shall be produced. Calculations of the aircraft weight and balance must be conducted in accordance with the requirements of the operating airline to ensure:
(a) the weight calculation does not exceed the structural limits of the aircraft type (as determined by the Manufacturer/Operator);
(b) an accurate balance calculation that results in a centre of gravity within fore and aft balance limits for the aircraft type, as determined by the Manufacturer/Operator.

Weight and balance calculations must:
(a) be based on current aircraft weight and balance data (as determined by operating airline);
(b) consider limitations imposed by the operating airline;
(c) take into account the expected load;
(d) determine if the metric system or imperial units are used in weight and balance calculations.

The load control process must utilize passenger and baggage weights for weight and balance calculations that are in accordance with requirements of the operating airline, including:
(a) persons traveling in crew seats;
(b) accurate weight of the load including bulk, ULD’s, transfer load.

All weight and balance calculations for each passenger flight must account for the individual or cumulative weights of:
(a) hold baggage;
(b) gate delivery items;
(c) non-normal load items.

If directed by the operating airline, use ballast when necessary to bring the aircraft centre of gravity within operational limits.

5.11 Weight Recording

5.11.1 Bulkload
If standard baggage weights are not used, calculate the actual weight of bulk baggage using the available data. Follow operating airline policy for standard loading guidelines.

5.11.2 Unit Load Devices (ULD)
ULDs loaded with baggage need not be weighed when standard baggage weights are used. If not, determine the weight of ULDs by the use of a weighbridge, or tally of the individual weights of each piece loaded.

If the validity of the indicated weights is in doubt, due to appearance or other circumstances, the ULD must be weighed prior to acceptance. For weight and balance purposes, the recorded weight of the transfer ULD will be used.

5.12 Departure Control System (DCS) Process

5.12.1 Airline Approved DCS for Load Control
If a DCS system is used in the Load Control Process, the aircraft data for the operating airline must be current and include all information as outlined in AWM 565. The DCS system used shall be approved by the operating airline.

5.12.2 Data for Weight & Balance
At check-in closure, the Load Control Agent records or receives, as per the operating airline requirements:
(a) the total number of passengers checked-in;
(b) the total number of males, females, children and infants or number of adults, children and infants (depending on the system used);
(c) the total weight of baggage;
(d) the breakdown of seating distribution of passengers within each trim zone.
5.12.3 Reports and Messages

Produce and transmit messages in standard format, as required by the operating airline, for example:

(a) CPM—Container/Pallet Distribution Message
(b) LDM—Load Distribution Message
(c) UCM—Unit Load Device Control Message

Messages must be sent by the originating station to addresses specified by the operating airline.

APPENDIX A

LDM

AB767/27.YYABC.B40/322.3/3/17
-LIS.4/0/0.5.T161.1/135.3/26.PAX/0/0.PAD/0
/4
-PBM.108/4/4.T4304.3/2340.4/834.0/1130.PAX
/2.110.PAD/0/6.SOC/0/3.AVI/3.DIP/4/2
.AVI/3.DIP
-CCS.9/2/0.T7530.1/2205.2/4013.4/802.PAX/2
/9.PAD/0/1.HEA/1/240
-CUR.59/5/2.T8422.2/2620.3/5500.4/302.PAX/5
/59.PAD/0/6.FR6/2/260
SI CAPT COPELAND/WINGTANKFUEL 78430 CENTERTANK FUEL 2460

CPM

QX SPLKKKL
.GVAKPCX 031234

CPM

KL296/03.PHBFM.1234567890AB
-11L/248/B
-12L/568/BT
-13L/548/B
-21P/2456/C
-22P/3226/C
-23P/X
-31P/N
-32P/X
-33P/X
-41L/X
-42L/435/B
-51P/M
-53P/C
-DL/4567/C
-EL/3424/C
ULD MESSAGING
MESSAGING - UCM IN - ARRIVAL FLIGHT

Sample message
UCM
ZZ123/22FEB.BBBBB.XXX
IN
.AKE0000UU.AKE0000UU.AKE0000UU.AKE0000UU
.AKE0000UU.AKE0000UU.AKE0000UU.AKE0000UU.P1P00000UU
SI AKE25077UU DMG

ZZ = AIRLINE CODE
BBBBB = AIRCRAFT REGISTRATION
XXX = ARRIVAL STATION
UU = ULD OWNER CODE

Sample message if no containers or pallets are offloaded
UCM
ZZ123/22FEB.BBBBB.XXX
IN
.N

ZZ = AIRLINE CODE
BBBBB = AIRCRAFT REGISTRATION
XXX = ARRIVAL STATION
UU = ULD OWNER CODE

MESSAGING - UCM OUT - DEPARTING FLIGHT

Sample message
UCM
ZZ123/22FEB.BBBBB.XXX
OUT
.AKE0000RT/YVR/B.AKE0000LT/YVR/B.AKE0000RT/YVR/B.AKE0000RT/YVR/B
.AKE0000RT/YVR/C.PAG0000RT/YVR/C.RKN13218TS/YVR/CATM

ZZ = AIRLINE CODE
BBBBB = AIRCRAFT REGISTRATION
XXX = DEPARTURE STATION
UU = ULD OWNER CODE

Sample message if no containers or pallets are unloaded
UCM
ZZ123/22FEB.BBBBB.XXX
OUT
.N

ZZ = AIRLINE CODE
BBBBB = AIRCRAFT REGISTRATION
XXX = DEPARTURE STATION
## LOADING INSTRUCTION REPORTS

<table>
<thead>
<tr>
<th>OFFLOADING INSTRUCTION/REPORT</th>
<th>PREPARED BY</th>
<th>EDNO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL WEIGHTS IN KILOS</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

FROM/TO FLIGHT: GVA - ZRH  
A/C REG: SR586  
VERSION: F101C  
GATE TARMAC: AS1  
DATE: 25MAY92  
TIME: 1415

TRANIT SPECs: SEE SUMMARY  
OFFLOAD SPECs: SEE SUMMARY

**OFFLOADING INSTRUCTION**

**CPT 1 FLF**

- **TRANSIT**: DUS C/600 ✓  
- **OFFLOAD**: ZRH M/150 ✓  
- **SPECs**: SEE SUMMARY  
- **REPORT**: O  

**CPT 2 FLA**

- **TRANSIT**: DUS M/300 C/50 ✓  
- **OFFLOAD**: ZRH C/1234 ✓  
- **SPECs**: SEE SUMMARY  
- **REPORT**: 1 PC CGO LEAKING 085123456  

**CPT 4 ALF**

- **OFFLOAD**: ZRH B/600 ✓  
- **REPORT**: 1 BAG DAMAGED TAG SR389247  

THIS AIRCRAFT HAS BEEN OFFLOADED IN ACCORDANCE WITH THESE INSTRUCTIONS.

**SIGNATURE:**

<table>
<thead>
<tr>
<th>SUMMARY OF SPECIAL LOADS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>LOCN</th>
<th>OFF/TRAN</th>
<th>DEST</th>
<th>CAT</th>
<th>IMP</th>
<th>PCS</th>
<th>WEIGHT</th>
<th>TI</th>
<th>AWB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TRAN ✓</td>
<td>DUS</td>
<td>C</td>
<td>RRY</td>
<td>1</td>
<td>Opt1</td>
<td>034 345454</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>OFF ✓</td>
<td>ZRH</td>
<td>C</td>
<td>MAG</td>
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</table>

SI.
## Load Control — IGOM

### Offloading Instruction/Report

<table>
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<tr>
<th>All Weights in Kilos</th>
<th>Prepared By</th>
<th>EDNO</th>
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<tbody>
<tr>
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<tr>
<td>Offload Spec:</td>
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### Offloading Instruction

- **CPT 1 FLF**
  - Transit: DUS C/400
  - Offload: ZRH M/150
  - Spec: See Summary
  - Report:
  - D

- **CPT 2 FLA**
  - Transit: DUS M/300 C/50
  - Offload: ZRH C/1234
  - Spec: See Summary
  - Report:
  - R

- **CPT 4 ALF**
  - Transit: ZRH B/600
  - Offload: ZRH B/600
  - Spec: See Summary
  - Report:
  - O

This aircraft has been offloaded in accordance with these instructions.

### Signature

---

### Summary of Special Loads

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<td>Tran</td>
<td>BUS</td>
<td>C</td>
<td>Rry</td>
<td>1</td>
<td>Opt1</td>
<td>034 345454</td>
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<td>Off</td>
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<td>Mag</td>
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### Diagram

```
FROM/TO FLIGHT  A/C REG  VERSION  GATE TARMAC  DATE  TIME
Locn  Off/Trans  Dest  Cat  Imp  PCS  Weight  Ti  AWB
21  22  23  24  25  26  27  28  29
17
```
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<th>AIR REG</th>
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<th>GATE TARMAC</th>
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<th>TIME</th>
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**Transit Specs:**

- 11

**Offload Specs:**

- 12

---

**Offloading Instruction**

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<tr>
<td>1</td>
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**Signature:**

19

**This Aircraft has been offloaded in accordance with these instructions.**
<table>
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<tr>
<th>FROM/TO FLIGHT</th>
<th>A/C REG</th>
<th>VERSION</th>
<th>GATE TARMAC</th>
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<th>TIME</th>
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<tbody>
<tr>
<td>ZRH JFK SR100</td>
<td>HB166</td>
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<td>25MAY92</td>
<td>1234</td>
</tr>
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</table>

**COMPT.**
- F : 6 : 1 : 2 : 3 : 4 :

**TRANSIT**
- 0 : 0 : 1787 : 0 : 0 : 0 :

**RELOAD**
- 0 : -130 : 0 : 0 : 0 :

**SUBTOTAL**
- 0 : 0 : 1657 : 0 : 0 :

**ONLOAD**
- 6869 : 1234 : 2761 : 4511 : 2605 : 100 :

**TOTAL**
- 6869 : 1234 : 2761 : 4511 : 2735 : 100 :

**MAXIMUM WT**
- 9438 : 9438 : 9345 : 8700 : 12500 : 6120 :
# Chapter 5

## Loading Instruction/Report

<table>
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<th>EDNO: 1</th>
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</tr>
<tr>
<td>ZRH</td>
<td>JFK SR100</td>
<td>47C62620</td>
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**PLANNED JOINING LOAD**

| JFK | F 12 | C 24 | Y 124 | C 24567 | M 345 | B 3235 |

**JOINING SPECS:** SEE SUMMARY

**TRANSIT SPECS:** SEE SUMMARY

**RELOADS:** 12L to 34R

### Loading Instruction

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<tr>
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<td>:ONLOAD: JFK C/4569</td>
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<tr>
<td>:SPEC: SEE SUMMARY</td>
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<td>:ONLOAD: JFK C/4569</td>
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| CPT 2 FLC........ | FL/FR TOTAL: 6869 |
| ETC:              |                   |
|                   |                   |

---

**THIS AIRCRAFT HAS BEEN LOADED IN ACCORDANCE WITH THESE INSTRUCTIONS AND THE DEVIATIONS SHOWN ON THIS REPORT.**

**THE CONTAINERS/PALLETs AND BULKLOAD HAVE BEEN SECURED IN ACCORDANCE WITH COMPANY INSTRUCTIONS.**

**PRINT NAME:**

**SIGNATURE:**
### Load Control—IGOM

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<tr>
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<th>VERS/ON</th>
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**COMPT.**
- F: 1: 2: 3: 4:

**TRANSIT**
- 0: 0: 1787: 0: 0: 0:

**RELOAD**
- : : : : : :

**SUBLTOTAL**
- 0: 0: 1657: 0: 130: 0:

**ONLOAD**
- : : : : : :

**TOTAL**
- : : : : : :

**MAXIMUM WT**
- 9438: 9438: 9345: 8700: 12500: 6120:

### Load Control—IGOM

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**TRAN**
- JFK C AV1 1 45 075 6777654

**JOIN**
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| :12L | AV65885SR | :FR | AV65885SR | D |
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| :REPORT: | | | | R |

| :13L | AVE | :13R | AVE |
| :REPORT: | | :REPORT: | | CPT 1 TOTAL |

| CPT 2 | FLC | ETC: | |

Si ...

This aircraft has been loaded in accordance with these instructions and the deviations shown on this report. The containers/pallets and bulkload have been secured in accordance with company instructions.

Print Name: ..................................................
Signature: ..............................................
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<tr>
<th>FROM/TO FLIGHT</th>
<th>A/C REG</th>
<th>VERSION</th>
<th>GATE TARMAC</th>
<th>DATE</th>
<th>TIME</th>
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</table>

<table>
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<tr>
<th>LOAD</th>
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</table>

| COMPT: | 33    |
| TRANSIT: | 34   |
| RELOAD: | 35   |
| SUBTOTAL: | 36  |
| ONLOAD: | 37   |
| TOTAL: | 38   |
| MAXIMUM WT: | 39  |

Check combined load limitations!

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<tr>
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<th>A/C REG</th>
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<th>DATE</th>
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<tbody>
<tr>
<td>19</td>
</tr>
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</table>
Chapter 6:  Airside Supervision and Safety

6.0  Introduction

△ To ensure ground operational safety, all station activities, including, if applicable, those outsourced to an external third-party ground service provider or its subcontractors shall be conducted under the direct oversight of supervision personnel.

6.0.1  Operational Requirements

(a) Supervision personnel must be trained and qualified to perform the assigned functions.
(b) Assigned individuals will provide oversight of personnel conducting, airside operations.
△ (c) An assigned individual will oversee the aircraft turnaround during ramp/apron activities ensuring the aircraft is handled and serviced according to IGOM or the Operator's specific requirements, these duties may be combined with another function/role.
(d) If applicable checklists are provided, they shall be completed as required by the individual assigned to provide oversight.
(e) Individuals assigned to oversee ground handling operations must have oversight on airside operations, ground safety and flight schedule.

6.1  Supervision Scope

Oversight for an aircraft arrival/departure includes, but is not limited to the following activities:

(a) Aircraft loading & unloading;
(b) Aircraft servicing (e.g. potable water, lavatory, cleaning, catering);
(c) Aircraft fuelling;
(d) Aircraft movement (arrival, departure & towing);
(e) Passenger embarkation/disembarkation;
(f) Excess cabin baggage handling;

6.2  Turnaround Coordination/Supervision Requirements

△ The table below defines elements that require supervision by individuals assigned to oversee ground handling operations. Primary task is to stop all unsafe acts.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-flight brief conducted regarding flight requirement(s) and services as needed</td>
<td>✓</td>
</tr>
<tr>
<td>2. Pre-arrival check parking position free of Foreign Object Damage (FOD), obstacles and/or spillage</td>
<td></td>
</tr>
<tr>
<td>3. Personnel wearing PPE available and ready</td>
<td></td>
</tr>
<tr>
<td>4. All GSE and personnel positioned outside the Equipment Restraint Area (ERA)</td>
<td></td>
</tr>
<tr>
<td>5. Ensure guidance system is activated and marshaller(s)/wing walkers correctly positioned as applicable</td>
<td></td>
</tr>
<tr>
<td>6. Personnel must stay clear of the aircraft, until anti-collision lights have been switched off (exception applies if APU is not operational)</td>
<td></td>
</tr>
<tr>
<td>7. Ensure aircrafts chocked and coned</td>
<td></td>
</tr>
<tr>
<td>8. Ensure an arrival external check prior to approach of any ground support equipment is done</td>
<td></td>
</tr>
<tr>
<td>9. Ensure equipment is properly positioned and operated (e.g. guide rails)</td>
<td></td>
</tr>
<tr>
<td>10. Ensure cargo holds are offloaded and commodities correctly handled as required</td>
<td></td>
</tr>
<tr>
<td>11. Ensure all cargo holds offloaded according to LIR and inspected for damage</td>
<td></td>
</tr>
<tr>
<td>12. Passenger Bridge and/or Steps set to correct height before opening cabin access doors and all safety devices are installed</td>
<td></td>
</tr>
<tr>
<td>13. Aircraft cabin access door operation by authorized and qualified person</td>
<td></td>
</tr>
<tr>
<td>14. During passenger (dis)-embarkation, passenger movement protected and guided in walkways between the aircraft and bus or terminal</td>
<td></td>
</tr>
<tr>
<td>15. Passenger walkways clean of obstacles and free of undesired contaminated substances</td>
<td></td>
</tr>
<tr>
<td>16. Fuel truck properly positioned and escape route not obstructed</td>
<td></td>
</tr>
<tr>
<td>ACTION</td>
<td>✓</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>17. Ensure FUEL SAFETY ZONES are respected</td>
<td></td>
</tr>
<tr>
<td>18. Ensure safety precautions for Re-fuelling with passengers adhered</td>
<td></td>
</tr>
<tr>
<td>19. Ensure on-load started and Load Master in possession of LIR</td>
<td></td>
</tr>
<tr>
<td>20. Ensure condition of load inspected prior to loading</td>
<td></td>
</tr>
<tr>
<td>21. Ensure baggage and cargo loaded and handled in accordance with the written LIR</td>
<td></td>
</tr>
<tr>
<td>22. Ensure DG correctly handled, segregated, secured and stowed</td>
<td></td>
</tr>
<tr>
<td>23. Ensure holds are checked to verify load and locks/nets configuration</td>
<td></td>
</tr>
<tr>
<td>24. Ensure Load information is exchanged with all deviations noted</td>
<td></td>
</tr>
<tr>
<td>25. Ensure final load information provided to Flight crew as required</td>
<td></td>
</tr>
<tr>
<td>26. Ensure GSE removal procedures followed</td>
<td></td>
</tr>
<tr>
<td>27. Ensure final ramp inspection and aircraft walk-around check performed</td>
<td></td>
</tr>
<tr>
<td>28. Chocks and cones removal procedures followed</td>
<td></td>
</tr>
<tr>
<td>29. Ensure departure sequence conducted as required</td>
<td></td>
</tr>
<tr>
<td>30. Ensure post departure activities conducted as required with appropriate document retention</td>
<td></td>
</tr>
</tbody>
</table>
Annex A

Annex A lists the approved current IGOM variations received in accordance with the process and criteria outlined in the INTRODUCTION, Section 12.

### National Aviation Authorities/Regulator Variations

<table>
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<tr>
<th>State Code (ISO)</th>
<th>Variation Number</th>
<th>IGOM Reference</th>
<th>Variation</th>
<th>Validity From (date)</th>
<th>Validity To (date or permanent)</th>
<th>Status (in use/not used)</th>
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### Airport Authority Variations

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<th>IGOM Reference</th>
<th>Variation</th>
<th>Validity From (date)</th>
<th>Validity To (date or permanent)</th>
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