

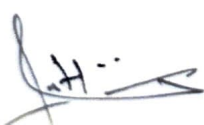
TRIBHUVAN INTERNATIONAL AIRPORT AIRSIDE SAFETY OPERATION PROCEDURES (TIA-ASOP)



TIACAO
AIRPORT OPERATION DEPARTMENT
AIRSIDE MANAGEMENT DIVISION.
GAUCHAR, KATHMANDU

Nepal

July, 2026



TRIBHUVAN INTERNATIONAL AIRPORT

KATHMANDU, NEPAL

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RECORDS OF AMENDMENTS

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PREFACE

Tribhuvan International Airport (TIA) operates as the primary international gateway of Nepal, handling a diverse range of air traffic under complex operational, environmental, and infrastructural conditions. Ensuring the safety of airside operations, is therefore of paramount importance to safeguard aircraft operations, passengers, personnel, and airport assets.

This TIA Airside Safety Operation Procedure, TIA-ASOP, has been developed to provide a standardized framework for safe, efficient, and coordinated activities within the airside area of TIA. It outlines the general operational guidelines, responsibilities, and safety practices to be followed by all airside stakeholders, including airport operators, airline personnel, ground handlers, service providers, and regulatory agencies.

The procedures contained herein are aligned with applicable national and international aviation safety standards and are intended to promote a proactive safety culture, minimize operational safety risks, and ensure effective coordination among all parties involved in airside activities.

This document is a dynamic reference and shall be reviewed and updated periodically to reflect changes in regulations, operational requirements, and emerging safety challenges.

All stakeholders are required to understand, comply with, and implement the provisions of this procedure to ensure the highest level of airside safety at Tribhuvan International Airport.

This SOP is issued under the authority of General Manager of Tribhuvan International Airport Civil Aviation Office and comes into effect from ...11 September 2026.



General Manager
TIACAO

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ABBREVIATIONS

ADP	Airside Driving Permit
AGL	Aeronautical Ground Lighting
AMD	Airside Management Division
ANR	Air Navigation Regulation
APU	Auxiliary Power Unit
CAAN	Civil Aviation Authority of Nepal
GHA	Ground Handling Agency
GPU	Ground Power Unit
GSE	Ground Support Equipment
GRF	Global Reporting Format (of ICAO)
HAZMAT	Hazardous Material
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ILS	Instrument Landing System
PBB	Passenger Boarding Bridge
POB	Persons on board
PPE	Personal Protective Equipment
PRM	Persons with Reduced Mobility
RT	Radiotelephone / Radiotelephony
RTO	Rejected Take-Off
SMS	Safety Management System
SOP	Standard Operating Procedure
TIACAO	Tribhuvan International Airport Civil Aviation Office
VDGS	Visual Docking Guidance System



DEFINITIONS

Clear definitions eliminate ambiguity during operational coordination. Although most of the terminologies given here, are taken from the ICAO's standard definitions, however, some other definitions, other than ICAO standard, are also added and those added definitions are only for the scope of this SOP.

Airside:

The movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

Airbridge

An enclosed, telescoping device that connects a passenger aircraft to the terminal building and provides a means for boarding and deplaning passengers. Also called *aerobridge*, *passenger- boarding bridge*, *jet bridge* and *Jetway* (a registered trademark).

Aircraft clearance zone

The area through which the aircraft approaches its final parking position and must be strictly clear of any Ground Support Equipment (GSE) before an aircraft is allowed to continue to the stand or the area from which aircraft is moved out of the parking stand.

Aircraft Stand

A designated area on an apron intended to be used for parking an aircraft.

Apron

A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

Cabin crew

A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member. Also called flight attendant.

Cart

An unpowered, wheeled vehicle used to transport baggage and cargo to or from an aircraft. Also called *barrow*.

Circles of safety

Imaginary lines around a parked aircraft that designate areas in which restrictions on vehicle movement apply. The outer circle is 5 meters (16 feet) from the aircraft; vehicle drivers must test their brakes before entering the area within this circle. The inner circle is 2 meters (7 feet) from the aircraft; drivers must stop their vehicles before entering the area within this circle and then proceed slowly toward the aircraft.

Cockpit

The part of the aircraft where the flight crew operates. Also called flight deck or flight compartment.

Dangerous goods

Articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

Engineering/engineers

The ground service department / technical personnel/s who make repairs, technical inspections or maintenance to aircraft on the ramp. Also called *maintenance/maintenance technicians* (or *mechanics*).

Equipment limit lines

Markings designating the *aircraft clearance zone*.

Flash point

The lowest temperature at which a liquid will produce sufficient vapor to ignite in the presence of a flame.

Flight crew

The pilots and, on some aircraft, the flight engineer/s.

Foreign object damage

Any damage to an aircraft or any other equipment caused by Foreign Object Debris.

Foreign object debris (FOD)

An inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations.

Ground service equipment (GSE)

Collective term for the various vehicles and devices used to service aircraft parked at the gate. Examples include tow vehicles, baggage carts (barrows), loading vehicles, catering vehicles and refueling vehicles.

Load Instruction Report (LIR)

A document prepared by load control staff that indicates to the person in charge of loading the aircraft how baggage, mail and cargo should be distributed for aircraft weight-and-balance purposes.

LVO (Low Visibility Operations):

Procedures activated when visibility or RVR falls below established minima requiring enhanced controls.

Maintenance/maintenance technicians

See *engineering/engineers* entry.

Maneuvering Area:

The part of the aerodrome used for takeoff, landing, and taxiing, excluding aprons.



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Marshaller

A ramp worker who uses hand signals to control and direct others on the ground, particularly vehicle drivers, in moving to and from an aircraft. A specially qualified marshaller may also direct the flight crew during the aircraft-parking process. Also called *signalman*.

Movement Area:

That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

A defined area in apron intended for aircraft parking, loading/unloading, refueling, and servicing can be

- **Active Stand** – Allocated for scheduled arrivals and departures within a defined operational time window.
- **Passive Stand** – Used for long-term parking, maintenance positioning, or non-operational aircraft.
- **Remote Stand** – Located away from the terminal; passengers are transported via coach.
- **Maintenance Stand** – Allocated near hangars for technical activities.

Narrowbody aircraft

An aircraft that, in passenger configuration, has a single aisle. See *Widebody aircraft* entry.

No-fit position

An empty space in the cargo hold of a containerized aircraft in which there is no container or pallet. There may be more than one such position, and the locations may vary from one hold to another. Aircraft weight- and-balance considerations determine the locations of such positions. See *unit load device (ULD)* and *pallet* entries.

No-drive zone

The area under an aircraft's fuselage and wings where vehicles are not permitted to be driven.

Pallet

A metal bed (a component of a ULD) of specific dimensions on top of which cargo is loaded.

Personal protective equipment (PPE)

Specialized equipment worn by line personnel to protect against biological and physical hazards. These include high-visibility garments, safety footwear, gloves, kneepads, earplugs, earmuffs, and wet-weather gear.

Ramp — See *apron* entry.

Runway:

A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.



Taxiway:

A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

- a. **Aircraft stand taxilane.** A portion of an apron designated as a taxi route intended to provide access to aircraft stands only.
- b. **Apron taxiway.** A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.
- c. **Rapid exit taxiway:** A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times.

RVR (Runway Visual Range):

The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

Unit load device (ULD)

An aircraft container or a combination of an aircraft pallet and an aircraft pallet net for grouping and restraining cargo, mail and baggage for air transport.

Widebody aircraft

A large aircraft that, in passenger configuration, has two aisles. See *narrowbody aircraft* entry.

Empty aircraft

Aircraft without passengers or operating flight crew on board and with engines shut down.

SECTION-1 INTRODUCTION

1.1 Purpose

This Tribhuvan International Airport, Airside Safety Operating Procedure (TIA-ASOP) establishes a comprehensive, standardized, and regulatory compliant framework governing all airside activities at Tribhuvan International Airport. The purpose of this procedure is to ensure the highest achievable level of operational safety, regulatory compliance, and risk mitigation in accordance with ICAO Annex 14, CARs 14, and other applicable regulatory requirements. This ASOP shall be subject to annual review and revision, or earlier if required due to operational changes, regulatory updates, or identified safety concerns, to ensure its continued effectiveness, relevance, and alignment with international best practices and national regulatory standards.

The TIA-ASOP is designed to:

- Safeguard aircraft operations from ground-based hazards.
- Prevent runway incursions, excursions, and airside collisions.
- Ensure safe coordination between aircraft, vehicles, personnel, and equipment.
- Standardize apron, maneuvering area, and vehicle operations.
- Integrate Safety Management System (SMS) principles into daily operations.
- Promote accountability through defined responsibilities and reporting mechanisms.

Given the TIA's complex terrain environment, high traffic density, and single runway constraints, strict adherence to these procedures is mandatory to maintain operational continuity and minimize systemic risk.

1.2 Scope

This ASOP applies to all personnel, agencies, departments, and external stakeholders operating within the airside boundary of TIA. It covers all movement areas and associated infrastructure.

The provisions are mandatory for:

- Airside Management Division
- Air Traffic Control (ATC)
- Ground Handling Agencies (GHA)
- Airport Security Units
- Airline Operators
- Fuel Service Providers
- Construction Contractors
- Security Coordination Units Operating within civil boundaries
- Rescue and Firefighting Service (RFFS) Personnel.
- Maintenance and Repair Organizations (MRO)
- Civil Engineering Division
- Technical Service Department

The ASOP governs routine operations, abnormal operations, emergency coordination, and infrastructure works. Non-compliance may result in enforcement action under TIACAO and or CAAN regulatory authority.

1.3 Operational Context

Tribhuvan International Airport operates under unique geographical and environmental constraints that significantly influence airside operations.

1.3.1 Elevation & Density Altitude:

At approximately 4,390 feet AMSL, aircraft performance is affected by reduced air density, especially during summer months. This impacts takeoff roll distance, braking performance, and rejected takeoff scenarios, increasing runway occupancy time.

1.3.2 Runway Configuration:

TIA operates a single runway (02/20) without a full-length parallel taxiway (though we expect the full length of parallel taxiway very soon after project work completion) this results in backtracking operations, increased runway occupancy, and higher incursion risk during peak hours.

1.3.3 Terrain Constraints:

The surrounding mountainous terrain restricts missed approach paths and limits go-around maneuverability. Therefore, runway condition monitoring and FOD prevention are critical to minimize rejected takeoffs.

1.3.4 Wildlife & Environmental Factors:

Bagmati and Manohara River nearby open waste areas, and urban expansion contribute to high bird activity including Black Kites and Crows. Monsoon season increases grass growth and standing water, elevating bird strike risk.

1.3.5 Operational Traffic Mix:

TIA handles narrow-body jets, turboprops, helicopters, military movements, and widebody operations. This traffic diversity requires flexible yet tightly controlled apron and maneuvering area management.

1.4 REGULATORY FRAMEWORK

1.4.1 International Framework

Airside operations at TIA are governed by ICAO Standards and Recommended Practices (SARPs), particularly:

- a. ICAO Annex 14 – Aerodromes:
Defines physical characteristics, obstacle limitation surfaces, runway strip standards, lighting requirements, and operational safety practices.
- b. ICAO Doc 9137 – Airport Services Manual:
Provides detailed procedures for airside inspections, wildlife management, pavement maintenance, and FOD control.

Compliance ensures international recognition and aerodrome certification validity.

1.4.2 National Framework

TIA operates under the regulatory oversight of the Civil Aviation Authority of Nepal (CAAN). Key regulatory documents include:

- a. CARs-14
- b. National Civil Aviation Security Program, Nepal
- c. CAAN Safety Management System Framework
- d. Aeronautical Information Publication (AIP) Nepal
- e. TIA Aerodrome Manual
- f. TIA SMS Manual
- g. TIA Apron Safety Operation Procedure
- h. TIA Wildlife Hazard Management Plan
- i. TIA Airside Driving Handbook
- j. TIA Airside Driving Permit
- k. TIA Bird and Wildlife Risk Assessment Development & Mitigation Measure Plan



SECTION 2

GENERAL GUIDELINES

2.1 REPORTING OF SAFETY INFORMATION

Tribhuvan International Airport (TIA) recognizes that timely and transparent reporting of safety-related information significantly reduces the likelihood of accidents and serious incidents. A proactive reporting system enables early identification of hazards, operational weaknesses, and human factors concerns before they escalate into major safety events. Therefore, TIA actively promotes an environment of open reporting as a fundamental pillar of its Safety Management System (SMS).

TIA is committed to fostering a strong “Just Culture”, where personnel are encouraged to report safety concerns without fear of punishment or unfair disciplinary action, provided that such actions do not involve willful negligence, intentional violations, or unlawful acts. The objective of this approach is to ensure systematic reporting, collection, analysis, and dissemination of safety information strictly for the purpose of accident prevention and continuous improvement.

The implementation of Just Culture at TIA is supported by formal policy directives endorsed by senior leadership. This commitment extends beyond the Airside Management Division and involves coordination among airlines, ground handling agencies, Air Traffic Control (ATC), security agencies, maintenance organizations, and regulatory authorities. Senior management demonstrates visible support by ensuring confidentiality, fair treatment, and corrective action focused on system improvement rather than individual blame.

2.2 REPORTING CHANNELS AT TIA

To strengthen safety reporting practices, TIA encourages all personnel to report safety concerns through the following channels:

- a. **Online Reporting System (Website-Based Reporting):** TIA provides a dedicated safety reporting platform through its wildlife management website (<https://wildlife.tiacao.com/>), allowing user to submit reports electronically and (voluntary.tiacao.com) for both members and non-members (no login required). This system ensures accessibility, ease of reporting, and confidentiality. Reports may include incidents, hazards, near-misses, wildlife strikes, vehicle deviations, FOD observations, ground damage, procedural violations, or any unsafe condition observed within the airside area.
- b. **Manual Voluntary Safety Reporting Form (VSRF):** A standardized Voluntary Safety Report Form is available for manual submission (Ref. Appendix A-21). Personnel may submit completed forms to their respective supervisors or directly to the Safety Office/Airside Management Division. Anonymous reporting options are available to further encourage openness and transparency.

2.3 RESPONSIBILITIES OF AIRSIDE PERSONNEL

All ramp personnel, drivers, marshallers, wildlife control staff, maintenance staff, and other airside workers are required and encouraged to:

- Immediately report any aircraft ground damage, including the slightest scratch or dent.
- Report any collision or contact between ground service equipment (GSE) and aircraft.
- Report Foreign Object Debris (FOD), wildlife hazards, runway incursions, fuel spills, equipment malfunction, or unsafe behaviors.
- Prioritize safety over schedule pressure or operational convenience.
- Any event or condition that can affect airside safety.

2.4 AIRSIDE ACCESS CONTROL

Strict access control prevents unauthorized presence in safety-critical zones.

Personnel must undergo:

- Background verification
- Security clearance
- Airside safety induction
- ID pass issuance

Vehicle permits are issued only after inspection of roadworthiness, beacon installation, and company marking. Escort procedures limit unfamiliar personnel exposure to operational hazards. Violations are documented under SMS and may result in access revocation.

2.5 AIRSIDE DRIVING & VEHICLE CONTROL

Airside driving is regulated due to proximity to active aircraft. Speed limits are enforced strictly with periodic monitoring. Near aircraft, reduced speed minimizes jet blast impact and collision risk.

Runway entry requires:

- ATC clearance (Shall require to communicate Kathmandu Ground Frequency 121.900)
- Full readback
- Visual confirmation of stop bar
- Night driving mandates reflective PPE and operational rotating beacons.

2.6 MANOEUVRING AREA OPERATIONS

Maneuvering area operations at TIA are safety critical due to the airport's single runway configuration (RWY 02/20), absence of a full-length parallel taxiway, terrain constrained environment, and mixed aircraft traffic. Any disruption to the maneuvering area directly impacts flight safety and operational continuity. Therefore, runway and taxiway monitoring, inspection, and control measures are implemented at an enhanced level compared to aerodromes with multiple runway redundancy.

The Maneuvering Area includes:

- Runway 02/20
- Associated taxiways and rapid exit taxiways
- Runway strip and graded areas
- Runway End Safety Areas (RESA)
- Associated lighting and visual aids

Strict operational discipline, continuous monitoring, and proactive hazard detection are mandatory to prevent runway incursions, excursions, and surface-related aircraft incidents.

2.7 RUNWAY INSPECTION PROGRAM

2.7.1 Inspection Frequency

Given TIA's single-runway dependency, inspections are conducted at a minimum of: Two scheduled inspections daily:

- a. Early morning (prior to start of operation)
- b. Evening (Prior before night operation)

Inspection Team shall be the team defined in Aerodrome manual.

Additional unscheduled inspections under the following conditions:

- a. After heavy rainfall or thunderstorm activity
- b. After reported bird strike on takeoff or landing
- c. Following rejected takeoff (RTO)
- d. After aircraft wheel burst or hydraulic leakage
- e. Following FOD report from flight crew
- f. After prolonged construction activity near maneuvering area
- g. During monsoon season when rubber deposit contamination increases

Inspection shall be coordinated with ATC to minimize disruption to runway operations and reduce runway occupancy time. Such inspections shall be conducted without requiring deployment of the full inspection team, and the Airside Management Division (AMD) may assign personnel as deemed necessary based on operational requirements and urgency.

2.7.2 Inspection Scope and Technical Items

Each runway inspection must be systematic and documented using a standardized checklist. The inspection vehicle must maintain continuous radio contact with ATC on ground frequency 121.90. Inspection elements include:

- a. Pavement Surface Condition
- b. Rubber Buildup Assessment
- c. Foreign Object Debris (FOD)
- d. Runway Lighting & Visual Aids
- e. Bird/Wildlife Activities

The Airside Management Division (AMD) at Tribhuvan International Airport shall strictly prohibit the presence of food items within the airside/Ramp operational area, except where specifically authorized for operational purposes. Unmanaged disposal of food waste, including leftover catering materials and organic refuse, is strictly restricted as it can attract wildlife, particularly birds and stray animals, thereby increasing the risk of bird strikes and aircraft incidents. All stakeholders, including Airlines, Ground Handling Agencies, catering services, and contractors, shall ensure proper collection, segregation, and disposal of food waste in designated sealed containers which thereafter transferred to waste management center located at landside same day. Any violation of this requirement shall be treated as a safety hazard and may result in corrective action, penalties, or suspension of airside privileges.



2.7.3 Runway Closure Procedure

Runway closure may be required due to:

- a. Surface damage
- b. Aircraft incident
- c. Severe FOD contamination
- d. Wildlife hazard beyond safe limit
- e. Lighting system failure
- f. Construction work

2.7.4 Runway Closure Coordination and Authority:

In coordination with Air Traffic Control (ATC), the Airside Inspection Officer (AIO) may assess the prevailing runway conditions and, if deemed unsafe for aircraft operations, advise for the immediate closure of the runway. Such recommendations shall be based on real-time inspection findings, safety risk evaluation, and compliance with applicable aviation safety standards. The final closure action shall be executed in coordination with ATC to ensure safe and efficient management of air traffic.

2.7.5 Immediate Closure Steps

- a. Airside Officer identifies hazard.
- b. ATC informed immediately.
- c. ATC suspends arrivals/departures.
- d. NOTAM initiated through AIS.
- e. Physical closure markers positioned at entry points.
- f. Stop bars activated.

2.8 NOTAM Issuance

NOTAM must include:

- a. Runway identifier
- b. Nature of closure
- c. Estimated duration
- d. Operational limitations

If closure exceeds extended duration, Aeronautical Information Publication (AIP) amendment or supplement may be required.

2.9 Physical Barricading

Barricading requirements include:

- a. Illuminated X-markers at runway threshold
- b. Cones and lighted barricades
- c. Guard deployment if necessary
- d. Stop bar activation at all taxiway entry points

Night closures require illuminated markers meeting visibility standards.



2.10 Runway Reopening Procedure

Before reopening:

- a. Final inspection conducted
- b. FOD sweep performed
- c. Lighting verified
- d. Wildlife patrol clearance obtained
- e. ATC formally notified

2.11 Risk Considerations

At TIA, maneuvering area risk is elevated due to:

- a. Single runway dependency
- b. High-density peak traffic
- c. Mountain-induced weather variability
- d. Monsoon hydroplaning risk
- e. Mixed turboprop and jet operations
- f. Limited diversion alternatives during closure

Therefore, runway surface monitoring is not merely a compliance requirement but a critical risk mitigation strategy directly linked to accident prevention.

2.12 Documentation & Audit Evidence

The following records must be maintained:

- a. Incident/Accident/Occurrence (Appendix -Page A-15)
- b. Daily inspection logs (Appendix -Page A-16)
- c. Wildlife observation logs (Appendix -Page A-18)
- d. Runway closure records Appendix- Page A-19)
- e. RTO inspection reports (Appendix-Page A-21)

These records demonstrate compliance with ICAO Annex 14 requirements for movement area maintenance and operational control.

2.13 Ramp/Apron Safety Rules**A. The following rules apply to all operations on the ramp:**

- a. Always be aware of your surroundings.
- b. Always wear personal protective equipment (PPE).
- c. No smoking.
- d. No alcoholic drinks or any drugs, legal or illegal, that are likely to impair performance or judgment.
- e. No rough or boisterous play; practical jokes may lead to injury or damage.
- f. Report all injuries, equipment damage and near-collisions to a supervisor.
- g. Do not operate any equipment that has been declared unserviceable.
- h. **Keep** the ramp area clear of foreign object debris (FOD).
- i. Only a trained operator may drive a vehicle or operate its controls.
- j. Always obey speed limits.
- k. Never try to get on or off a moving vehicle; wait until it stops.
- l. Never carry coworkers on vehicles unless seats are available. "No seat, no ride."
- m. Do not operate vehicles or equipment in the no-drive zone under the aircraft's fuselage and wings. Loading/unloading of some containerized narrowbody aircraft may require vehicles or equipment to be operated between the inboard engine and fuselage; great care must be taken to avoid contact with the engine or fuselage.

- n. Never drive over fuel hoses or static leads.
- o. Minimize the distance a high-lift vehicle is driven with the rear van body raised.
- p. Never back a vehicle toward an aircraft unless a marshaller is present and the view is clear.
- q. Be very careful near moving aircraft; they have the right-of-way.
- r. Avoid the intake and exhaust areas of aircraft engines.
- s. Use extreme caution when walking under any part of an aircraft.
- t. Wait until the aircraft's anti-collision beacon is off before approaching the aircraft.
- u. Never try to load late-arriving baggage if the aircraft's anti-collision beacon is on.
- v. Unauthorized photography, videography, recording, or distribution of any operational activities, facilities, personnel, documents, or equipment within restricted airport areas is strictly prohibited, including posting or sharing on social media or any public platform, unless officially authorized by the airport authority.

B. Preventing Foreign Object Damage

Foreign object debris (FOD) can damage aircraft and cause injury. Ramp personnel must be familiar with the local program to prevent foreign object damage. Keep the ramp clear of FOD such as nuts and bolts, rags, paper, plastic, drink containers, baggage parts and tags, pavement fragments, aircraft galley waste, food and garbage. Do not wait; clean as you go.

Guidelines for preventing foreign object damage include:

- i. Pick up FOD as soon as you see it.
- ii. If the FOD cannot be easily removed by hand, ask the supervisor to request that the airport or terminal operator use a manual or airfield sweeper to remove it.
- iii. Frequently clean or vacuum work areas.
- iv. Ensure receptacles for FOD are in work areas.
- v. Account for all tools in and around aircraft.
 - „ Do not leave lock wire (safety wire) and other loose items such as nuts and bolts in work areas.
- vii. Continuously inspect ramp areas for FOD.
- viii. Report Airside Management Division immediately if FOD is seen on restricted Movement areas.

C. The following general rules apply to ramp operations near propeller-driven aircraft:

- a. Do not approach the aircraft until the propellers have stopped turning and the anti-collision beacon is off.
- b. Never walk close to or between propellers or between propeller blades, even if they are motionless.
- c. Never touch a propeller blade.

D. Periodic and random alcohol testing.

The Airside Management Division (AMD) at Tribhuvan International Airport shall conduct of all airside personnel, including drivers, ground handling staff, contractors, and operational supervisors, to ensure fitness for duty and maintain the highest level of operational safety. Testing may be carried out before duty, during shifts, or following any safety-critical incident. All personnel are required to comply fully with the testing process and demonstrate zero tolerance for alcohol while on duty or within the airside operational environment. Any non-compliance, refusal to undergo testing, or detection of alcohol above permissible limits shall be treated as a serious violation and will result in strict disciplinary action, including immediate suspension of airside access, reporting under the Safety Management System (SMS), and further regulatory or administrative penalties as applicable. (Appendix Page A-13)

2.13.1 Positioning Ground Service Equipment

Movement of aircraft into and out of the parking area is done in an area called the aircraft clearance zone. Keep this zone free of obstructions and protect it from any intrusion while the aircraft is moving.

Illustrations of the aircraft clearance zone and aircraft clearance zone markings are provided in the Appendix pages A-1 and A-2.

Follow these general guidelines for positioning Ground Support Equipment by GHA/Operators:

- a. Place GSE outside the aircraft clearance zone equipment limit lines for ready access to the aircraft after it stops and the anti-collision beacon is off.
- b. Before positioning GSE near the aircraft, check that all buffers are serviceable and handrails are retracted.
- c. After positioning GSE near the aircraft, check that stabilizers, if fitted, are down and handrails are extended correctly.
- d. Keep loading platforms lowered when placing them near the aircraft; ensure enough clearance for cargo doors to be opened.
- e. Position GSE in an organized way so that all equipment has access to the aircraft.

Approaching an Arriving Aircraft

- A. Before approaching the aircraft, make sure that:
 - a. The aircraft has stopped.
 - b. The nosewheels are chocked.
 - c. The anti-collision beacon is off.
 - d. The marshaller has given the "safe to approach" signal.
- B. When working around an aircraft, be alert for protrusions that could cause injury, such as antennas, pitot tubes, vortex generators and air-conditioning pack exhaust ports.



- C. Aircraft servicing involves several types of vehicles. General guidelines for positioning vehicles at the aircraft include:
- Baggage-handling vehicles (belt loaders and pallet loaders) are normally the first to approach, followed by catering and cabin-cleaning vehicles.
 - When positioning catering and cleaning vehicles, ensure that the leading edge of the platform is as perpendicular as possible to the side of the aircraft, taking into account the curvature of the fuselage.
 - After the baggage-handling vehicles are in position, two vehicles pulling carts, trolleys, carts (barrows), container dollies or other equipment carrying baggage, cargo and mail may approach.
 - Provide clear access and egress to the refueling vehicle.

2.13.2 Circles of Safety

Each parked aircraft has unmarked protection zones called the “circles of safety” that are designed to prevent damage from GSE. The outer circle of safety extends 5 meters (16 feet) from the aircraft. Vehicle drivers must test their brakes before crossing this imaginary boundary. The inner circle of safety is 2 meters (7 feet) from the aircraft and indicates where drivers must stop their vehicles before resuming their approach to the aircraft at a slow speed.

An illustration of the circles of safety is provided in the Appendix (page A-3).

2.13.3 Positioning Safety Cones

Safety cones are used to create protective zones around specific aircraft areas, especially engines and wing tips, to prevent ground accident damage.

Illustrations of recommended safety cone placements for different aircraft types are provided in the appendix (pages A-4 through A-9).

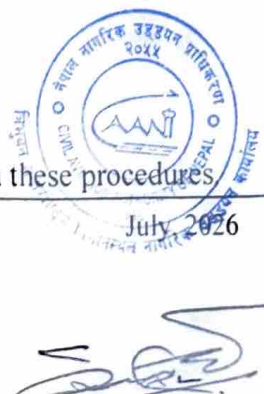
2.14 Refueling, Defueling & Fuel Spill Management

Aircraft fueling operations are classified as high-risk airside activities due to the presence of flammable liquids, ignition sources, vehicle movement, and passenger proximity. Improper fueling procedures may result in fire, explosion, environmental contamination, aircraft damage, or serious injury.

At TIA, all fueling and defueling operations shall be conducted in accordance with:

- ICAO Annex 14 requirements
- ICAO Airport Services Manual (Doc 9137 Part 1 & Part 8)
- CAAN Safety Regulations
- International Joint Inspection Group (JIG) fueling standards
- Approved Fuel Supplier (NOC) Operating Manual

No fueling activity shall be conducted without full compliance with these procedures.



2.14.1 General Safety Precautions during Refueling

The following general precautions shall be applied by Fuel service providers and operators at all times during aircraft fueling:

- a. Extreme caution shall be exercised when maneuvering vehicles and rolling stock near aircraft being refueled. Operators must be vigilant for fuel hoses, hydrant pits, bonding cables, and grounding wires.
- b. All vehicles must maintain a minimum distance of 1 meter (3 feet) from fueling vehicles, hoses, hydrant couplings, and static bonding lines.
- c. Only authorized and trained fueling personnel may operate fueling equipment.
- d. The fueling vehicle shall be positioned to allow unobstructed emergency exit and rapid vehicle removal in case of emergency.
- e. Fire extinguishers (minimum two appropriate rated units) must be positioned at accessible locations near the fueling vehicle.
- f. Bonding/earthing cable must be connected prior to opening fuel caps or hydrant valves.
- g. No ignition sources (smoking, open flames, non-intrinsically safe electronics) are permitted within 15 meters of fueling operations.
- h. Aircraft auxiliary power unit (APU) operation during fueling must comply with airline procedures and manufacturer guidance.

2.14.2 Fueling shall immediately cease if:

- a. Fuel leakage is detected
- b. Lightning is observed within 5 nautical miles
- c. Severe static discharge risk is identified
- d. Unauthorized personnel enter fueling safety zone

2.14.3 Emergency Fuel Shutoff

In an emergency, refueling must be stopped immediately. When a tanker is involved, the person in charge of the vehicle must act very quickly. With a hydrant system, it is usually necessary to activate the emergency fuel shutoff switch, which typically is prominently located and identified in front of the aircraft parking position. All ramp staff should know where the emergency fuel shutoff switches are located and ensure that access to them is always kept clear.

2.14.4 Fueling Procedure (Standard Operation)**A. Pre-Fueling Checks**

- a. Confirm aircraft chocked and parking brake set.
- b. Establish communication with flight crew or ground engineer.
- c. Verify aircraft fuel type and required quantity.
- d. Inspect fueling vehicle for:
 - i. Hose integrity
 - ii. Nozzle condition
 - iii. Filter differential pressure
 - iv. Emergency shut-off system functionality
- e. Position fueling vehicle with emergency escape path unobstructed.



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- f. Place fire extinguishers.
- g. Connect bonding cable between aircraft and fueling vehicle.
- h. Display fueling warning cones/signage.

2.14.5 Defueling Procedure

- A. Defueling shall only be performed when:
 - a. Authorized by airline maintenance control
 - b. Approved by Fuel Service Supervisor
 - c. Coordinated with ATC (if required due to operational impact)
- B. Defueling Steps
 - a. Aircraft electrically grounded.
 - b. Fire extinguishers positioned.
 - c. Passengers must not be on board unless specifically authorized under controlled conditions.
 - d. Bonding cable connected.
 - e. Use approved defuel pump and containment tank.
 - f. Monitor vapor emission levels.
 - g. Ensure proper storage of recovered fuel (segregated tank).
 - h. Inspect aircraft tank for contamination after completion.

Recovered fuel must be quality tested before reuse.

2.14.6 Passenger Safety During Fueling

- A. Fueling with passengers on board is permitted only if:
 - a. Cabin crew present at exits.
 - b. At least one door open with airbridge or stairs connected.
 - c. Emergency evacuation path clear.
 - d. Fire service informed.
 - e. No fueling during electrical storm.
- B. Fueling must be immediately stopped if:
 - a. Fuel spill occurs
 - b. Passenger boarding bridge malfunctions
 - c. Fire alarm activates

2.14.7 Fuel Spill Management Procedure

Fuel spills are classified into three categories:

Category 1 (Minor Spill <2 liters)

- a. Immediately stop fueling.
- b. Contain using absorbent material.
- c. Notify Supervisor/AMD.
- d. Remove contaminated material.
- e. Dispose in approved hazardous waste container.
- f. Resume fueling only after area declared safe.

Responsibility: Fuel Supplier (Nepal Oil Corporation)

Category 2 (Moderate Spill (2–50 liters))

- a. Stop fueling immediately.
- b. Activate emergency fuel shut-off.
- c. Inform ATC and Airside Operations.
- d. Establish 15-meter safety perimeter.
- e. Deploy spill containment kit.
- f. Prevent entry into drainage system.
- g. Remove ignition sources.
- h. Notify Airport Fire Service (standby condition).
- i. Record incident in SMS.

Responsibility:

- a. Initial containment: Fuel Supplier (NOC)
- b. Area isolation: Airside Management Division
- c. Fire risk standby: Rescue and Fire Fighting Division (RFFD)

Category 3 (Major Spill (>50 liters or flowing spill))

- a. Stop fueling immediately.
- b. Activate emergency response alarm.
- c. Inform ATC (possible stand closure).
- d. Suspend nearby aircraft operations.
- e. Fire Service responds with foam standby.
- f. Close affected apron area.
- g. Prevent spill from entering storm drains.
- h. Notify Airport Emergency Operations Center.
- i. Environmental team assesses contamination.

Cleanup Responsibility:

- a. Primary: (NOC)
- b. Oversight: AMD
- c. Cost Liability: NOC (unless caused by third-party vehicle impact)

Runway or taxiway contamination requires immediate closure until cleaned and inspected.

2.14.8 Environmental Protection Requirements

Fuel must not enter:

- a. Stormwater drains
- b. Soil areas
- c. Runway strip grass
- d. Surface water channels
- e. Absorbent materials must be disposed of as hazardous waste under environmental regulations.
- f. Spill events must be reported within an hour under Airside Management Division



2.14.9 Operational Restrictions During Fuel Spill

- a. No engine start permitted.
- b. No ground power unit ignition nearby.
- c. No pushback allowed until clearance issued.
- d. No aircraft movement through contaminated area.

Airside Safety Officer must verify surface condition prior to reopening stand.

2.14.10 Documentation & Reporting

All fueling and spill incidents must be documented including:

- a. Date & time
- b. Aircraft registration
- c. Fuel quantity
- d. Spill volume estimate
- e. Weather condition
- f. Root cause
- g. Corrective action

Major spills require investigation under SMS framework.

2.15 Waste Fuel :

Fuel that has been removed from an aircraft or storage system and is no longer suitable for aviation use due to contamination, degradation, or maintenance procedures.

- a. All waste fuel generated within the airside area shall not be disposed of independently by operators.
- b. All operators must coordinate with the RFF Division (TIACAO) prior to any fuel disposal activity.
- c. Waste fuel shall be collected, stored, and transferred under controlled conditions.
- d. Subject to quality and safety assessment, waste fuel shall be utilized for live fire training drills conducted by the RFF Division. (Appendix -A18)
- e. Unauthorized dumping, discharge into drains, or open ground disposal is strictly prohibited.

2.16 FIRE PREVENTION

All ramp personnel shall be aware of the proper use and application of portable fire extinguishers, basic fire prevention procedures, emergency responder contact details, and the airport emergency evacuation plan. They shall also receive periodic refresher training to ensure readiness in responding effectively to fire and emergency situations on the airside



RFF Division, Operators and supervisors should ensure that:

- a. Appropriate types and numbers of fire extinguishers are serviceable and positioned in well- marked areas, and that access to them is kept clear.
- b. Fire alarm stations are well marked and accessible.
- c. Fire hydrants and hoses are well marked and accessible.
- d. Emergency shutoff points for in-ground fueling systems are clearly marked and accessible.
- e. All personnel know the locations of fire extinguishers, hydrants, alarms and emergency fuel shutoff systems, and are familiar with their operation.
- f. Emergency exits and escape routes are clearly marked and unobstructed, and illuminated exit signs are functional.
- g. Flammable materials are properly stored and disposed of.
- h. No-smoking areas are defined, and signs alert personnel to smoking restrictions.
- i. Aircraft and fuel servicing equipment are securely bonded before refueling or defueling commences.
- j. Unserviceable fire equipment is reported immediately to a supervisor.

2.17 CARING FOR PASSENGERS (RAMP TRANSFER OPERATIONS)

Passenger movement on the apron presents elevated safety risk due to the proximity of aircraft engines, ground support equipment (GSE), moving vehicles, fuel hoses, electrical cables, and active taxi routes. At TIA, where passenger boarding bridges (PBB) are not available and most aircraft boarding/disembarkation occurs via stands using passenger coaches (pax buses), strict procedural control is mandatory.

Passenger safety during apron transfer operations is the joint responsibility of:

- a. Ground Handling Agency (NAC)
- b. Airline Operator
- c. Apron Control Unit
- d. Airside Safety Division
- e. Airport Security

No passenger movement on the apron shall occur without full supervision and controlled routing.

Responsibility for Supervision and Control:

The primary responsibility for passenger movement supervision on the apron shall rest with the Ground Handling Agency (NAC), which must ensure that all passengers are escorted, guided, and transported safely between the terminal and aircraft using designated routes and approved procedures. The Airline Operator shall ensure compliance with safety requirements and provide necessary coordination. The Apron Control Unit and Airside Safety Division shall monitor and enforce adherence to airside safety regulations, while Airport Security shall ensure that only authorized passengers access the apron and that security protocols are maintained at all times.



1. A. Use of Passenger Coaches (Apron Buses)

Due to unavailability of Passenger Boarding Bridge (PBB) at TIA, passenger coaches are the primary means of transfer between terminal and Aircraft stands.

- a. Coaches must be airside-permitted vehicles with valid inspection certification.
- b. Drivers must hold valid Airside Driving Permit (ADP) with apron authorization.
- c. Coaches must approach aircraft only after engines are shut down and anti-collision beacons extinguished (unless airline SOP permits otherwise).
- d. The coach must be positioned parallel to the aircraft at a safe distance from:
 - i. Engine intakes
 - ii. Propeller arcs
 - iii. Refueling zones
- e. Wheel chocks must be applied when parked at aircraft.
- f. Passenger doors must not open until the vehicle is fully stationary.

B. Boarding Procedure (Departure)

- a. Passengers assemble at designated bus boarding gate inside terminal.
- b. Safe loading into bus under supervision.
- c. Bus proceeds via approved airside route.

C. Disembarkation Procedure (Arrival)

- a. Aircraft parked and engines shut down.
- b. Ground staff position safety cones forming protected corridor.
- c. Bus positioned in designated safe zone.
- d. Passengers escorted from stairs directly into bus.

2. Jet Blast and Propeller Hazard Control

The apron at TIA accommodates narrow-body jets and turboprop aircraft, both presenting significant hazard zones.

3. Separation from Vehicular Traffic and Ramp Hazards

The apron is an active vehicle operating environment. Strict segregation between passengers and vehicle lanes is mandatory.

4. Physical Delineation and Safety Barriers

Since permanent pedestrian walkways are not available at all Aircraft stands at TIA, temporary visual and physical separation must be established.

2.17.1 Special Category Passengers**A. Persons with Reduced Mobility (PRM):**

- a. Wheelchair assistance required.
- b. Ambu lift vehicle used when necessary.
- c. Dedicated staff assigned.

B. VIP/VVIP Movement

Requires Separate SOP.

2.17.2 Emergency Situations During Passenger Transfer

- A. If any of the following occur during transfer:
 - a. Aircraft engine restart
 - b. Jet blast hazard
 - c. Fuel spill
 - d. Lightning warning
 - e. Vehicle collision nearby
 - f. Security threat
- B. The procedure shall be:
 - a. Stop passenger movement immediately.
 - b. Direct passengers to nearest safe zone.
 - c. Inform Apron Control and Security.
 - d. Suspend operation until hazard cleared.

2.18 Aircraft Stand Management

Aircraft stand management at Tribhuvan International Airport shall be conducted in a controlled, coordinated, and safety-oriented manner to ensure the efficient utilization of apron capacity, prevention of stand conflicts, and safe movement of aircraft and ground vehicles within the airside environment. The allocation of aircraft stands/bays shall be primarily managed and controlled by the **Apron and Wildlife Management Section under the Airside Management Division (AMD)** based on operational requirements, aircraft category, parking duration, turnaround requirements and prevailing airside conditions.

The designated stand allocation plan shall be disseminated to all concerned stakeholders, including aircraft operators, ground handling agencies, engineering units, fuel service providers, and other relevant operational units through approved electronic systems, operational messaging platforms, email coordination, radio communication, or other standardized communication channels established by the airport authority. All concerned parties shall ensure timely acknowledgment and compliance with the allocated stand instructions.

Aircraft stand allocation shall consider multiple operational and safety factors including:

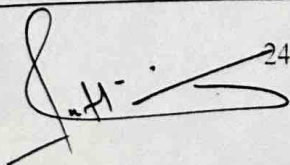
- a. Aircraft size, wingspan, and stand compatibility
- b. Scheduled arrival and departure timings
- c. Turnaround duration and operational priority
- d. Apron congestion and traffic flow
- e. Availability of ground support services
- f. Wildlife activity or temporary operational restrictions
- g. Maintenance or Works in Progress (WIP) activities
- h. Emergency or contingency requirements.

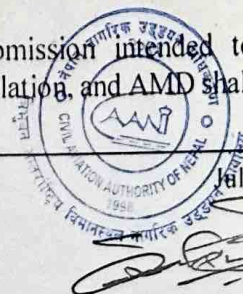


To maintain efficient traffic sequencing and overall apron coordination, the stand allocation plan may be monitored, adjusted, or overseen by **Kathmandu Control Tower (TWR)** whenever required for operational traffic management, aircraft sequencing, congestion mitigation, or emergency coordination purposes. In such situations, close coordination shall be maintained between the AMD and Air Traffic Control (ATC) to ensure safe and uninterrupted aircraft movement

2.19 Departure / Pushback Sequencing

1. Departure and pushback sequencing at Tribhuvan International Airport shall be conducted in a standardized, safe, efficient, and transparent manner under the coordination of the Airside Management Division (AMD) in liaison with Kathmandu Tower.
2. The departure sequence shall primarily be determined based on the chronological order of final load sheet submission as evidenced through the approved operational communication system to Apron and wildlife Management Section, TIA. However, such sequencing priority shall only remain valid when the aircraft is confirmed operationally ready for immediate pushback.
3. For sequencing purposes, the final load sheet shall only be considered valid when submitted by the concerned operator or ground handling agency through the approved communication channel/system with verifiable timestamp evidence indicating:
 - a. Flight number;
 - b. Aircraft type/registration;
 - c. Assigned stand/bay; and
 - d. Actual submission time.
4. Submission of a final load sheet alone shall not guarantee sequencing priority unless:
 - Boarding is completed;
 - Aircraft doors are closed;
 - Pushback tug and headset personnel are positioned;
 - All ground servicing equipment is removed/cleared; and
 - No operational or technical restriction exists preventing immediate aircraft movement.
5. AMD shall verify aircraft readiness through:
 - a) Radio communication;
 - b) Physical inspection;
 - c) CCTV surveillance; and/or
 - d) Coordination with the respective ground handling agency.
6. Aircraft failing to achieve operational readiness within five (5) minutes of final load sheet submission may lose sequencing priority and may be repositioned to the end of the departure queue.
7. Any false, premature, or misleading load sheet submission intended to obtain sequencing advantage shall be treated as a sequencing violation, and AMD shall reserve the authority to:





- a. Re-sequence the aircraft;
 - b. Delay pushback coordination;
 - c. Record the occurrence for compliance monitoring; and
 - d. Recommend further administrative action for repeated non-compliance.
8. AMD shall coordinate the proposed departure/pushback sequence with Kathmandu Tower; however, final pushback and departure clearance shall remain subject to, ATC approval.
9. AMD may utilize a real-time electronic sequencing dashboard system displaying:
- a. Load sheet submission time;
 - b. Aircraft readiness status;
 - c. Sequencing order;
 - d. Pushback status; and
 - e. Operational remarks,

for effective operational coordination, monitoring, and transparency among stakeholders

2.20 Helicopter Parking

At Tribhuvan International Airport (TIA), helicopter parking shall be carried out under a standardized procedure aligned with fixed-wing stand management to ensure safety, coordination, and efficient apron operations.

- a. Parking shall be permitted only at designated helipads or approved mixed use stands.
- b. Allocation shall consider rotor diameter, obstacle clearance, signs and ongoing operations.
- c. Helicopters shall follow approved approach paths and obtain ATC clearance before landing.
- d. Landing shall be conducted only after confirmation that the stand is clear and ready.
- e. Ground personnel shall approach the aircraft only after pilot or marshaller clearance.
- f. Parking shall be completed strictly within marked stand boundaries with proper alignment.
- g. Safe separation shall be maintained from fixed-wing aircraft, vehicles, and ground equipment at all times.
- h. Engine shutdown and rotor deceleration shall follow manufacturer-approved procedures.
- i. Chocking and securing shall be done only after rotor safety conditions are confirmed.



- j. Ground support equipment shall remain outside the rotor safety zone during all operations.
- k. Refueling and special operations shall follow strict safety procedures with fire cover availability.
- l. Emergency access routes shall remain unobstructed at all times.
- m. Fire and emergency response readiness shall be ensured during all phases of operation.
- n. Standard marshalling signals shall be followed during engine start and lift off.
- o. Any incident, deviation, or hazard shall be immediately reported to the Apron and Wildlife Management Section.
- p. No operator shall exceed the permitted number of night-stay (night stop) aircraft at TIA as authorized by CAAN..



SECTION 3

OCCUPATIONAL HEALTH SAFETY & ERGONOMICS (AIRSIDE OPERATIONS)

Airside operations expose personnel to elevated noise levels, hazardous materials, extreme weather, repetitive physical strain, and high-risk manual handling tasks. Effective occupational health management is essential not only for employee wellbeing but also for maintaining safe aircraft operations. Fatigue, musculoskeletal injuries, hearing damage, and poor hygiene practices can directly impact operational safety.

The following provisions are mandatory for all ramp personnel, ground handlers, contractors, and technical staff operating within the airside environment.

3.1 Hearing Conservation

The apron and ramp are classified as high-noise environments due to:

- a. Aircraft engine start and shutdown
- b. APU operation
- c. Jet blast exposure
- d. Ground power units (GPU)
- e. Air conditioning units
- f. Pushback tractors
- g. Auxiliary service vehicles

Noise levels may exceed 85 dB(A) and, in close proximity to jet engines, can reach levels exceeding 120 dB(A), which can cause immediate or cumulative hearing damage.

3.1.1 Personal Hearing Protection

- a. The use of approved personal hearing protection equipment (PPE) is mandatory in all active ramp areas.
- b. Personnel must use hearing protection appropriate to the operational task, including:
 - i. Earmuffs (high-noise zones)
 - ii. Earplugs (continuous exposure tasks)
 - iii. Double protection (earplugs + earmuffs) during engine run-ups
- c. Hearing protection devices must meet recognized safety standards and provide adequate Noise Reduction Rating (NRR).
- d. Personnel must inspect hearing protection equipment daily. Damaged hearing protection must be replaced immediately.



3.1.2 Hearing Monitoring & Medical Surveillance

To ensure long-term hearing preservation:

- a. Personnel exposed to high noise levels must undergo baseline audiometric testing upon employment.
- b. Annual hearing tests are mandatory for ramp personnel.
- c. Hearing threshold shifts must be investigated and documented.
- d. Persistent exposure above safe limits shall trigger review of:
 - i. Work rotation
 - ii. PPE effectiveness
 - iii. Exposure duration

Supervisors are responsible for ensuring compliance with hearing conservation programs.

3.2 Hygiene

Ramp personnel frequently handle aircraft components, lavatory waste systems, catering equipment, fuel connections, and baggage items. Poor hygiene can result in illness, cross-contamination, and operational health hazards.

3.2.1 Personal Hygiene Requirements

To protect personal and public health:

- a. Personnel must thoroughly wash hands:
 - i. Before eating or drinking
 - ii. After using the lavatory
 - iii. After servicing aircraft toilets
 - iv. After handling waste, chemicals, or baggage
- b. Hand sanitizing stations should be accessible in ramp support areas.
- c. Eating and drinking are prohibited on the active apron.

3.2.2 Use of Gloves & Protective Barriers

- a. Gloves must be worn when servicing aircraft systems, including:
 - i. Lavatory service
 - ii. Waste handling
 - iii. De-icing fluid handling
 - iv. Fuel operations
 - v. Baggage loading

- b. Open cuts and abrasions must be covered with waterproof bandages before commencing duty.
- c. Personnel servicing aircraft lavatories must wear:
- d. Full protective suits
- e. Chemical-resistant gloves
- f. Face shield or eye protection

Contaminated protective gear must be removed safely and disposed of properly.

3.2.3 Disease Prevention & Biohazard Awareness

All Personnel working on airside must treat all waste systems as potentially infectious. Any exposure to biological fluids must be reported immediately to supervisor and medical unit.

Hygiene compliance directly affects operational reliability and workforce availability.

3.3 Protective Clothing and Equipment

Ramp personnel are exposed to mechanical, environmental, and chemical hazards. Appropriate protective clothing reduces injury severity and prevents accidents.

3.3.1 Mandatory Protective Equipment

A. The following PPE is mandatory for all working on active RAMP:

- a. High-visibility reflective clothing (mandatory at all times)
- b. Safety footwear with steel/composite toe protection
- c. Gloves (task dependent)
- d. Hearing protection
- e. Eye protection when required

B. High-visibility clothing must:

- i. Be reflective in low-light conditions
- ii. Fit snugly to prevent snagging
- iii. Be kept clean for maximum visibility

3.3.2 Weather & Environmental Protection

Given exposure to sun, monsoon rain, and cold winter mornings, personnel should use:

- a. Wet-weather gear during rain
- b. Insulated clothing in winter
- c. Sun hats and sunglasses
- d. Sunscreen during prolonged sun exposure

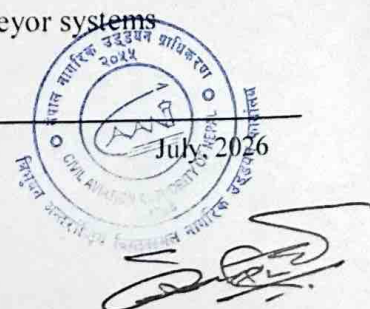
Heat stress and dehydration are recognized hazards; hydration breaks must be encouraged.

3.3.3 Equipment Fit & Safety

Clothing must:

- a. Not be excessively loose
- b. Avoid dangling straps or cords
- c. Fit securely to prevent entanglement with belt loaders or conveyor systems

Supervisors must conduct periodic PPE compliance inspections.



3.4 Manual Handling, Lifting & Ergonomics

Ramp personnel are highly susceptible to musculoskeletal injuries due to repetitive lifting, awkward postures, confined cargo compartments, and time pressure during aircraft turnaround.

3.4.1 Ergonomic Risk Factors

Ergonomic hazards in ramp operations include:

- Repetitive bending inside narrow cargo holds
- Twisting while transferring baggage
- Lifting from below knee height
- Overhead loading
- Uneven ramp surfaces
- Time pressure during quick turnaround
- Fatigue due to shift work

Poor ergonomics can reduce alertness and increase accident probability.

3.4.2 Safe Manual Handling Techniques

Personnel must follow these guidelines:

- Test the object's weight before lifting. If unsure, request assistance.
- Place feet shoulder-width apart in stable position.
- Bend knees, not waist.
- Keep back straight and neutral.
- Lift gradually using leg muscles.
- Keep load close to body.
- Avoid twisting; turn entire body instead.
- Lower loads carefully using reverse technique.

3.4.3 Baggage Weight Limits & Risk Management

A. Airlines commonly enforce baggage weight limits such as:

- 20 kg (44 lbs)
- 23 kg (51 lbs)
- 32 kg (70 lbs)

However, heavy baggage may still occur due to excess charges or cargo classification.

B. When handling heavy baggage:

Use mechanical aids such as:

- Belt loaders
- Lift platforms
- Cargo dollies

C. If mechanical aid unavailable:

- Two-person lift is mandatory
- Coordinate lift verbally

D. Avoid single-person lifting of items exceeding safe ergonomic threshold.



3.4.4 Use of Mechanical Lifting Devices

Mechanical devices reduce injury risk and increase efficiency.

Recommended use includes:

- a. Belt loaders for bulk baggage
- a. Power-assisted cargo loaders
- b. Motorized dollies
- c. Height-adjustable work platforms

Supervisors must ensure equipment is available and personnel trained in proper usage.

3.4.5 Fatigue & Shift Work Consideration

Fatigue contributes significantly to poor lifting posture and injury risk.

Controls include:

- a. Adequate rest breaks
- a. Shift rotation • Hydration
- b. Stretching exercises before shift
- c. Avoiding excessive overtime

Pre-shift stretching programs are strongly recommended to reduce muscle strain.

3.4.6 Injury Reporting & Prevention

All musculoskeletal discomfort or strain must be reported early.

Supervisors shall:

- a. Investigate recurring injuries.
- b. Review workload distribution.
- c. Assess workstation ergonomics.
- d. Implement corrective controls.

Ergonomic assessments should be conducted periodically in high-risk tasks such as baggage loading for narrow-body aircraft.

3.5 Accountability & Oversight

Accountability and oversight for occupational health and safety on the ramp are structured to ensure clear responsibility at all operational levels. Individual staff members are directly responsible for complying with hearing protection requirements, hygiene standards, proper use of personal protective equipment (PPE), safe manual handling practices, and timely injury reporting. Ground Handling Agency (GHA) Supervisors are accountable for monitoring daily compliance, enforcing corrective actions, and ensuring that personnel adhere to established safety procedures. Employers or GHAs are responsible for providing adequate PPE, delivering ergonomic and safety training, and maintaining safe working conditions.



SECTION 4

LOADING/UNLOADING AIRCRAFT

All loading and unloading activities must be conducted under strict coordination between the ground handling agency (NAC) and airline operators, ensuring compliance with safety, weight & balance requirements, and airside safety procedures.

4.1 Preventing Injury

General guidelines for all ramp personnel to prevent from injury:

- a. Wear gloves while loading and unloading aircraft.
- b. Do not try to lift more than you can safely manage.
- c. Do not wear jewelry or identification bracelets.
- d. Keep your feet clear of drive systems and openings in the floor of the aircraft hold.
- e. Do not walk over the rolling stock train; walk around it or between the carts when the train is not connected to a tow vehicle.
- f. Return inadequately packed items for repacking.
- g. Report all spills immediately to a supervisor.
- h. Keep fingers and hands clear of cages with live animals.

4.2 Preventing Aircraft Damage

Aircraft structures are fragile, and damage may have serious results. Therefore, be very careful when positioning equipment close to or against the aircraft.

Follow these tips when loading and unloading an aircraft:

- a. Open hold doors with caution.
- b. Ensure that doors are fully opened and locked before beginning work.
- c. Ensure that cargo restraints are functioning properly.
- d. Floor and doorsill edges can be easily dented or torn, creating sharp edges that can injure people or damage baggage or cargo.
- e. Be especially careful not to damage the seals around cargo hold doors, as such damage can render the aircraft unserviceable for pressurized flight.
- f. Ensure that restraint nets are in place and hold latches and sill locks are raised before closing and locking a hold door.

4.3 Aircraft Weight and Operational Limitations

Be familiar with the weight restrictions for each type of aircraft you service. The manufacturer has set weight and operational limitations that establish the specific load limits and operational requirements.

The distribution of weight in an aircraft significantly affects the safety and efficiency of a flight. An improperly loaded aircraft — one that is outside the center-of-gravity limits — may lose effective elevator control, particularly during takeoff and landing.

4.4 Aircraft Cargo Restraints

After being loaded into the aircraft, unit load devices (ULDs) should be secured by the various fixed and moveable cargo floor components such as end stops guides and locks.

When a lock or latch does not work or is missing, or when a ULD is jammed, immediately notify the supervisor and the appropriate maintenance technician (engineer). Use the alphanumeric designator on the floor placard to reference the broken or missing component when reporting it.

4.5 Cargo Compartment Condition

The constant activity in cargo compartments leads to damage that typically varies from broken locks and door seals to rips, tears, protrusions, jagged edges and exposed fasteners.

Cargo compartments also accumulate trash, debris and even spilled liquid. Be especially alert for spills from seafood shipments. These spills often include saltwater that is a potentially severe corrosion hazard to the aircraft.

Many aircraft have fire detection and extinguishing systems, and it is important that staff are aware of their locations and take care not to damage them.

4.6 Reporting In-Hold System Defects

Report any in-hold system defects immediately to the loading supervisor. The loading supervisor then should notify maintenance personnel. If it is not possible to rectify the defect, it is important that maintenance personnel record it in the aircraft logbook.

4.7 Loading Supervisor's Responsibilities

4.7.1 During aircraft loading, the loading supervisor or his/her designated representative is responsible for:

- a. Monitoring the loading of the aircraft until hold doors are closed.
- b. Working with load control personnel to resolve any discrepancies with the load or the load instruction report (LIR).
- c. Stopping the loading of that hold until any discrepancy has been resolved.
- d. Ensuring that the load in a pre-loaded aircraft is safe and secure.



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- e. Ensuring that the destinations, weights, container numbers and pallet numbers correspond to the LIR.
- f. Ensuring that all loads are in the correct position according to the LIR.
- g. Double-checking around no-fit positions to ensure that the locks are raised.
- h. Entering the hold to ensure that all locks are raised.
- i. Confirming with the operator before closing each door that the load matches the LIR and is restrained correctly.
- j. Checking that the doorsill locks and lateral guides and/or webbing are raised.
- k. Ensuring that hold doors are not reopened after loading without first advising the flight crew.
- l. Completing the aircraft loading checklist and the departure report on the LIR after loading is complete.

4.7.2 If a shift change takes place during loading, the outgoing supervisor shall brief his/her replacement when he/she begins work. The handover briefing shall cover the following:

- a. Which container cards have been checked.
- b. Total number of bags, cargo and mail.
- c. Which holds have been checked, completed and closed.
- d. Any dangerous goods (hazardous material) or special loads.
- e. Other significant information.

The loading supervisor shall initial the LIR and the checklist, indicate those no-fit areas and load containers and pallets for which he/she was responsible. The loading supervisor shall also note when the handover occurred.

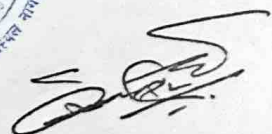
4.7.3 During unloading of an aircraft, the loading supervisor or his/her representative is responsible for:

- a. Checking the inbound LIR to ensure that all loads for that airport are unloaded.
- b. Checking for any load irregularities compared with the inbound LIR.
- c. Checking for any locks or restraints that have been left unsecured.
- d. Checking each hold, even those that the LIR indicates are empty.
- e. Completing an aircraft irregular load report (AILR) whenever an irregularity is found with an inbound load and submitting it to the appropriate departments.

4.8 Loading Carts (Barrows)

To prevent items from falling off a cart (barrow), do not load the cart higher than the cart frames. Cover loads with cart covers before leaving the baggage area. Load suit packs, cardboard boxes, pet packs, bassinets and other less-robust items on top of other items. Baggage with "FRAGILE" stickers should be stowed separately.





4.9 Loading Unit Load Devices (ULDs)

Baggage placed at the front and back of the first layer should consist of same-sized suitcases placed on end to minimize crushing. Place heavy items in this layer. The next layer is bedded-in horizontally to consolidate and stabilize the load. Long and awkward items should be placed on top. All baggage handlers and destination tags should be visible and face the ULD opening. Once full, the container shall be locked and the volume of goods entered on the destination label.

The following are additional guidelines for loading ULDs:

- a. Handle the customers' bags with great care.
- b. Do not load soft bags under hard cases
- c. Do not pull bags by their straps.
- d. Do not allow bags to fall on the ground.
- e. Do not slam bags onto baggage belts when unloading.
- f. Do not throw bags.
- g. Restrain all cargo in the aircraft hold according to the load instruction report (LIR) and weight and balance manuals.

4.10 Unit Load Device (ULD) Damage

Check for and report any damage to unit load devices (ULDs).

There are three categories of damage:

- a. *Allowable damage* has no influence on serviceability. The ULD may be used if any damage that penetrates the metal is covered with aluminum tape.
- b. *Minor damage* does not exclude the ULD from being used to carry cargo at a reduced gross weight until repairs are made. Repairs shall be made as soon as possible.
- c. *Major damage* renders the ULD unserviceable and unavailable for use until it is repaired.

An advisory list of ULD damage limits is provided in the appendix (page A-12). The list should be used during routine inspections of empty ULD containers and pallets before loading and after load breakdown. Certification requirements of the state authority also should be consulted when assessing ULD damage.

4.11 Loading Heavy Items on Widebody Aircraft

Make every effort to place individual items weighing over 27 kilograms (60 pounds) in containers on all widebody aircraft. Before accepting heavy items, ensure that aircraft limits will not be exceeded and that suitable ground-handling equipment and personnel are available.

When using manual handling procedures, take care when loading or unloading heavy items. Use load spreaders and restraints to avoid exceeding aircraft floor loading limits and to prevent damage to the cargo hold.

Use the following procedures to handle bulk loads on widebody aircraft:

- a. Each item should not exceed 50 kilograms (110 pounds). Any item over that weight should be placed in a container or loaded into the bulk hold on a pallet or unit load device (ULD).
- b. Urgent medical supplies, human remains, live animals and odd-shaped items that cannot be placed in a container are exceptions. The weight of each item should be clearly marked.

4.12 Loading/Unloading Freighter Aircraft

Incorrect loading of a freighter (cargo aircraft) may lead to a potentially dangerous aft center-of-gravity (CG) situation known as tail tipping.

The following precautions should be taken to prevent tail tipping:

- a. The loading supervisor should allocate loads in compartments forward of the CG to obtain proper ground stability.
- b. Begin loading in the forward compartments.
- c. Begin unloading in the rear compartments.
- d. When necessary, use a tail support stanchion to ensure ground stability. Use a stanchion only if the aircraft manufacturer recommends it for that aircraft type.
- e. Pay particular attention to the distribution of the transit load on multi-sector flights. Where possible, items that will be unloaded first should be loaded last.

4.13 Handling Wet Cargo

The following types of cargo are considered wet:

- a. Liquids in watertight containers.
- b. Wet materials not in watertight containers, such as fish packed in wet ice, fresh meat, wet hides, etc.
- c. Items, such as live animals, that may produce liquid.

Take the following precautions when loading or unloading wet cargo:

- a. Spread plastic sheets or tarpaulins on the aircraft or unit load device (ULD) floor and walls to catch any leakage or spillage.
- b. Do not load damaged goods in a ULD or on the aircraft. Examples include packages with holes or indentations, traces of leakage and defective caps or closure devices.
- c. Avoid crushing packages when stacking them on several levels.
- d. Immediately notify the loading supervisor, maintenance personnel or flight crew if there is any leakage or spillage of liquid. Clean any leakage or spillage before flight.

SECTION 5

GROUND SUPPORT EQUIPMENT

At Tribhuvan International Airport (TIA), Ground Service Equipment (GSE) used for aircraft handling such as baggage tractors, belt loaders, tow tractors, ground power units, air conditioning units, passenger steps, and other service vehicles is primarily the responsibility of the Ground Handling Agency (NAC/approved handler), which ensures that all equipment is serviceable, properly maintained, and operated only by trained and authorized personnel. The ground handler is responsible for the safe positioning, operation, and control of GSE around aircraft during all ground handling activities. The Airline Operator remains responsible for ensuring that contracted handlers comply with operational and safety standards, while the Apron Control Unit manages apron movement coordination to prevent obstruction to aircraft operations. The Airside Safety Division provides safety oversight and conducts compliance inspections, and Airport Security ensures that only authorized GSE and personnel access airside areas. All GSE shall be operated in a safe manner, fitted with required safety features, parked in designated areas when not in use, and positioned so as not to create obstruction or FOD hazards on the apron.

5.1 Pre-Operations Safety Check

Conduct a pre-operations safety check before operating any ground service vehicle to ensure that:

- a. All inside and outside lights are in good working condition.
- b. Steering and brakes, including emergency brakes, are in good working condition.
- c. Tires are inflated properly and have adequate tread.
- d. The windshield, if installed, is attached properly, free of cracks and scratches, and clean.
- e. Wiper blades are in good working condition.
- f. Fuel, oil and water levels are sufficient.
- g. If external damage exists, it will not affect vehicle performance or cause injury to personnel or damage to other equipment, facilities or aircraft.
- h. There are no leaks or spills.
- i. Tow couplings, if installed, are attached properly.
- j. All hydraulically operated equipment (e.g., conveyor belt) is operative.
- k. The two-way radio, if supplied, is fully operational.
- l. All aircraft protective buffers (bumpers) are in good condition.

5.2 Unserviceable Equipment

Equipment with defective brakes, protective buffers (bumpers) steering tow couplings, lights, wheels or windshield wipers or with fuel or oil leaks must be removed from service. An "UNSERVICEABLE" label should be placed on the vehicle. Where applicable, use a positive lockout switch system as well.

Adopt the following procedures when unserviceable equipment needs to be removed from the operations area to allow the aircraft to depart:

- a. Notify the supervisor, who should contact the maintenance provider.
- b. Remove the vehicle from the area according to the emergency breakdown procedures.
- c. Do not operate vehicles or equipment labeled unserviceable until they have been repaired and the supervisor has released them for use.

5.3 Towing High-Sided Rolling Stock

There is increased risk of damage to aircraft when towing high-sided rolling stock, particularly during operations with widebody aircraft. High-sided rolling stock includes dollies loaded with unit load devices (ULDs) or made-up pallets of cargo.

Take the following precautions when towing high-sided rolling stock to widebody aircraft; these precautions also should be considered when approaching narrowbody aircraft with covered carts (barrows):

5.4 Ground Equipment with Rubber Buffers

All ground equipment that touches the aircraft must have protective buffers (bumpers) at the contact point. Also, anything protruding from ground equipment that could accidentally touch the aircraft must have a buffer.

The following additional guidelines should be followed:

- a. Do not use any equipment with damaged buffers.
- b. Maintain a 25-millimeter (one-inch) space between the buffer and the aircraft.
- c. Keep a 50- to 70-millimeter (two- to three-inch) space between the buffer on a container loader and a widebody aircraft.
- d. Do not allow buffer-equipped ground service equipment such as carts and ground power units inside the one-meter (three-foot) no-drive area. These buffers are intended only to minimize damage from accidental contact with an aircraft.
- e. Be alert for the rising or settling of an aircraft as it is unloaded, loaded or refueled.

5.5 Marshalling Hand Signals

Marshall all vehicles that must be driven very close to the aircraft. The marshaller must maintain a clear line of sight with the vehicle driver and give all hand signals with direct, precise actions.

Illustrations of standard hand signals are provided in the appendix (page A-10).
Additional guidelines for giving and receiving hand signals include:

- a. The marshaller should position his/her hands well over his head or to the side of the body so the vehicle driver can easily understand the signal.
- b. The marshaller should always face the vehicle when it is being driven forward and reposition himself if he loses sight of the vehicle driver.
- c. The vehicle driver must stop if he loses sight of the marshaller or believes the vehicle is too close to the aircraft.
- d. When guiding from behind, the marshaller must be visible to the driver but not directly in the path of the vehicle.
- e. The marshaller should check the ramp area through which he walks to ensure that there are no obstructions.
- f. The marshaller must monitor the vehicle's path.
- g. The marshaller must use bright or lighted wands when visibility is reduced.
- h. Wheel Chock Placement
 - i. Wheel chocks shall be placed only after the aircraft has come to a complete stop and the marshaller has given the "Safe to Approach" signal.
 - ii. Ground personnel shall not approach the aircraft until engines, propellers, rotors, or other hazardous moving components are confirmed safe.
 - iii. Chock placement shall be conducted in a controlled and coordinated manner to prevent unintended aircraft movement during parking, servicing, loading, unloading, or maintenance activities.
 - iv. Wheel chocks shall be positioned securely on the designated landing gear tires in accordance with aircraft type, operational requirements, and standard ground handling procedures.
 - v. Additional chocks may be used during strong wind conditions, sloped parking areas, long- duration parking, or maintenance operations to ensure additional aircraft stability.
 - vi. Personnel involved in chock placement shall wear mandatory high visibility PPE and remain vigilant of surrounding operational hazards.
 - vii. Damaged, worn, or unserviceable wheel chocks shall not be used under any circumstances.
 - viii. Wheel chocks shall only be removed after proper coordination with authorized personnel and confirmation that pushback, towing, or departure operations are ready to commence.
 - ix. Any unsafe chocking practice, failure to place chocks correctly, or unauthorized removal of chocks shall be treated as a safety violation and reported through the Safety Management System (SMS).

5.6 Aircraft Passenger Doors

Procedures for opening and closing aircraft doors vary among aircraft types and airlines. The following are some general guidelines:

- The cabin crew is responsible for disarming the doors before they are opened. Line personnel should receive a "thumbs-up" signal from a cabin crewmember before opening an aircraft door.
- Line personnel should never attempt to open any cabin door that is in the "armed" mode. Contact the maintenance (engineering) department if a door malfunctions.
- Line personnel open cabin doors from the outside.
- On departure, do not open a closed door without permission from the flight crew.

Use the following procedures if a door has to be reopened before pushback:

- Tell the departure supervisor why the door needs to be reopened.
- The departure supervisor must obtain the flight crew's permission for reopening the door.
- No vehicles may approach the aircraft until the departure supervisor gives the "all clear" signal.

5.7 Push-Up Stairs

Push-up stairs are used for boarding and deplaning passengers at gates (stands) that are not serviced by an airbridge.

Follow these guidelines when positioning push-up stairs:

- Select stairs that are appropriate to the aircraft type.
- Conduct a pre-operational safety check of the stairs, including a check of the condition of the protective buffer and tests of the brakes, steering and hydraulics.
- Apply the hand brake and make sure it is in the "on" position.
- Fully retract the handrail on the top platform.
- Raise the stabilizers.
- Put the hand brake in the "off" position.
- After the aircraft's anti-collision beacon is turned off, position the stairs at the appropriate aircraft door.
- Observe wing, wing tip and engine clearances at all times.
- Leave enough distance for direct alignment of the stairs with the cabin door.

- j. Position the stairs to allow a space of about 50 millimeters (two inches) from the aircraft.
- k. Put the hand brake in the "on" position.
- l. Put the stabilizers in the full-down position.
- m. Climb the stairs and then follow standard door-opening procedures as detailed in paragraph 5.7.
- n. Deploy the safety handrail and lock it in position.
- o. Reverse the process to remove the stairs from the aircraft.

5.8 Motorized Stairs

Motorized stairs are used to board or deplane passengers when airbridges or push-up stairs are not available or not appropriate.

Follow these guidelines when operating motorized stairs:

5.8.1 Arrival:

- a. Elevate the rear step and attach and lock the rear safety strap.
- b. Place the motorized stairs behind the aircraft clearance zone equipment limit lines before aircraft arrival.
- c. Approach the aircraft only after the aircraft's anti-collision beacon has been turned off. Always observe the "circles of safety."
- d. Ensure that the aircraft door is closed and locked when positioning the stairs.
- e. Place the stairs with the rubber buffer parallel to the aircraft fuselage while maintaining a space of about 50 millimeters (two inches) from the fuselage.
- f. Use the micro-adjust switch on the cabin control panel to adjust the stair platform.
- g. Deploy the stabilizers before using the stairs.
- h. Unlock and remove the rear safety strap and lower the rear step.
- i. Use the micro-adjust switch on the platform to make final adjustments.
- j. Extend the guardrails or canopy.
- k. Ensure that the passenger door is closed and that no one is on the stairs.
- l. Switch off the vehicle's engine.
- m. Follow standard door-opening procedures as detailed in paragraph 5.6.



5.8.2 Departure:

- a. Retract the safety rails or canopy.
- b. Elevate the rear step; attach and lock the rear safety strap.
- c. Start the engine.
- d. Move the stairs to the designated parking area.

5.9 Ambulatory High-Lift Vehicles

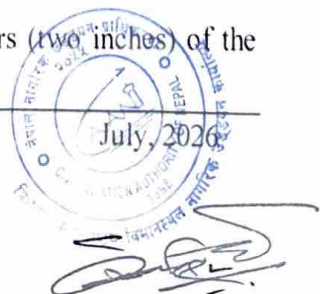
Airlines or their handling agents sometimes use various types of ambulatory high-lift vehicles to transport physically impaired passengers and related equipment to and from aircraft. Normally, these passengers will be boarded first and deplaned last. Operators must know the vehicle controls, including emergency controls and procedures, as well as the special requirements of each vehicle. For example, some vehicles have no stabilizer raise/lower switch but instead have only a van body raise/lower switch that also activates the stabilizers.

5.9.1 Follow these guidelines for operating such vehicles:

- a. Use a marshaller at all times when moving the vehicle.
- b. Use care when raising the rear van body, because stabilizers on some types of vehicles deploy automatically.
- c. Be careful when driving with the tailgate horizontal, because the overhang extends.
- d. Switch the engine off to reduce emissions when transferring passengers.
- e. Lock all doors and barriers when the vehicle is in "drive" mode.
- f. Have staff accompany all passengers and ensure that they are seated when the vehicle is moving.
- g. Activate the emergency controls in an emergency or electrical breakdown.

5.9.2 When approaching an aircraft with an ambulatory high-lift vehicle:

- a. Place the vehicle behind the aircraft clearance zone equipment limit lines before aircraft arrival.
- b. Position the vehicle at the appropriate aircraft door.
- c. Put the gear selector in "park" and apply the hand brake.
- d. Have the marshaller ensure that everyone is clear of the stabilizers.
- e. Engage the power take-off (PTO), if applicable.
- f. Enter the rear van body and raise it to about 20 centimeters (eight inches) below the doorsill.
- g. Extend and position the front platform to within 50 millimeters (two inches) of the doorsill.



- h. Open the safety gates, extend the safety handrails and lock them into position.
- i. Follow door-opening procedures as detailed in paragraph 5.7.

5.9.3 Before moving the vehicle away from the aircraft:

- a. Ensure that the aircraft door is closed.
- b. Retract the safety handrails and close and lock the safety gates.
- c. Center and retract the front extension platform.
- d. Close the rear van body doors and lower the body until it is seated on the chassis.
- e. Ensure that the stabilizers have retracted fully and then disengage the PTO.
- f. Follow the marshaller's guidance.
- g. Transport the passenger(s) and attendant(s) to the terminal.

5.10 Carts (Barrows)

Carts (also called barrows) are used to move baggage, freight and mail around the airport. They must not be used to transport personnel. Place loaded carts immediately behind the tow vehicle. Never tow more than six carts at one time. Never tow carts underneath the aircraft fuselage or engines.

Follow these guidelines for operating carts:

- a. Connect the first cart to the tow vehicle's towing assembly pin. The pins should be engaged in all eyelets of the towing coupling.
- b. Connect the other carts.
- c. Check that each coupling is connected securely.
- d. Do not load carts above the height of the end support railings.
- e. Do not drive over fuel hoses or anti-static leads.
- f. Do not block the refueling vehicle or any other vehicle.
- g. Place the carts in the stowage area when not in use.

5.11 Belt Loaders

Belt loaders are used to move baggage, freight and mail into and out of the aircraft cargo holds. Never drive a belt loader with the belt in the raised position except when making final positioning adjustments at the aircraft. Always follow the "no seat, no ride" rule.

5.11.1 Follow these guidelines when approaching an aircraft in a belt loader:

- a. Approach only after the aircraft's anti-collision beacon has been turned off.
- b. Position the loader according to the type of aircraft.



- c. Put the gear selector in "park" and apply the hand brake.
- d. Raise the belt to a height just below the hold doorsill and keep the belt 50 millimeters (two inches) from the aircraft.
- e. Erect the safety handrails.
- f. Open the hold door and begin loading or unloading.

Note. — To help prevent injury during the loading of baggage, some airlines permit the upper end of the belt to be placed inside the hold after the door is opened. This should be permitted only when the belt loader is in constant use; caution must be exercised to ensure that the belt does not cause damage to the hold as the aircraft settles during loading.

5.11.2 Follow these guidelines when moving a belt loader away from an aircraft:

- a. Reposition the loader for departure.
- b. Close the aircraft hold door.
- c. Lower the belt and the safety handrails.
- d. Move the loader to the assigned parking area.

5.12 Dollies

Dollies are used to move unit load devices (ULDs) and/or pallets. Use a marshaller when connecting loaded dollies together.

Follow these additional guidelines:

- a. Ensure that tow pins are engaged and secure in the lower eyelets of the couplings.
- b. Ensure that dollies are in the correct forward-aligned position and that personnel are clear before towing.
- c. Align dollies to ensure the safe transfer of ULDs.
- d. Ensure ULD locks are engaged before towing.
- e. Move the dollies to the assigned area when not in use.

5.13 Low-Profile Trailers

Low-profile trailers also may be used to move ULDs. Use a marshaller when connecting them and observe any local rules regarding the maximum number of trailers that may be connected. When using trailers, follow the additional guidelines above for dollies.

5.14 Tow Vehicles

Tow vehicles or tugs are used to tow rolling stock such as carts (barrows), dollies, low-profile trailers and various non-motorized equipment. Follow the "no seat, no ride" rule.

Follow these additional guidelines:

- a. Come to a complete stop before connecting or disconnecting equipment.



- b. Ensure that there is enough clearance when towing equipment near aircraft or other ground equipment.
- c. Use extreme caution when towing covered rolling stock, especially near narrowbody aircraft.
- d. Never walk over trailer draw bars or cross between two parked pieces of rolling stock if a towing vehicle is connected.
- e. Always close the curtains/rails on rolling stock, whether full or empty.
- f. Check all towing hitches before pulling rolling stock.
- g. Tow lightweight carts behind heavier ones; be careful when on downgrades, turning or braking.
- h. Ensure that locks are raised on dollies when moving ULDs.
- i. Avoid sudden braking.

5.15 Toilet Trucks

Toilet trucks are used to remove waste from aircraft toilets and to replenish the toilet pre-charge. Ensure that all attachments on the truck, including the toilet basket, are restrained and valves are closed before moving the truck. Advise your supervisor of any spillage and/or if you come in contact with any waste. Spill response stations should be located at readily accessible points on the ramp. Use absorbent material to contain and clean up any spillage.

5.16 Water Tanks

Follow these guidelines when using a water tank to replenish an aircraft's portable water supply:

- a. Connect the water tank to the tow vehicle and lock it into position.
- b. Position the tank behind aircraft clearance zone equipment limit lines before aircraft arrival.
- c. Approach the aircraft only after the anti-collision beacon has been turned off.
- d. Using a marshaller, position the tank as appropriate for the type of aircraft.
- e. Unclip the water-servicing panel on the aircraft.
- f. Open the water-charging valve underneath the water-servicing panel.
- g. Connect the water hose to the aircraft servicing point.
- h. Move the charge valve to the "open" position.
- i. Turn on the water tank chlorination switch.
- j. Turn the pump handle to the "tank pump" position.
- k. Start the generator motor.
- l. Check for the flashing light that shows water flow.
- m. Shut off the generator motor when the water is at the required level.
- n. Close the water-charging valve and reverse the above procedure.



5.17 Forklifts

Forklifts have great potential to cause damage to aircraft fuselages. Therefore, their use, to service aircraft should be kept to an absolute minimum. Before using any forklift, ensure that it is rated for the load to be lifted.

Follow these procedures when using a forklift to load or unload cargo:

- Always drive with the load against the mast and the mast tilted back.
- Watch the mast height when moving around the aircraft.
- Using a marshaller, drive straight forward to the cargo door.
- Raise the forks when close to the cargo door and lower them immediately after backing away.
- Reverse straight back on the same path while watching for any obstructions.

A forklift roller mat may be used to load/unload heavy freight in the forward hold of a narrowbody aircraft. When using a forklift roller mat:

- Ensure that the forklift tines extend fully into the pockets of the roller mat.
- Do not allow the forklift or the roller mat to touch the aircraft hold door.
- Do not walk on the rollers to push the load into the hold.

A forklift may be used to transport wheelchair-bound passengers on or off narrowbody aircraft at airport gates without airbridges. Such operations are usually done with a special piece of equipment called a wheelchair cage.

A wheelchair cage should be made of wood or heavy-gauge metal and have a floor and three sides high enough to safely carry the occupants. The front of the cage should be gated or fitted with a restraining device. The forklift and wheelchair cage should be fitted with safety chains or some other means should be employed to ensure that the cage cannot be accidentally dislodged from the forklift tines. The cage also should be fitted with adequate equipment to provide protection from the weather.

Follow these procedures when using a forklift to boarding or deplaning wheelchair-bound passengers:

- Ensure that the wheelchair cage is secure against the forklift mast; adjust the forklift tines and attach safety chains.
- Ensure that personnel safety restraints are in place when the forklift is moving and that no one is outside the restraint area.

5.17.1 Boarding:

- Ensure that cabin crew are ready to receive the passenger(s) and have opened the aircraft door.
- Wait until the passenger(s) and assisting staff are loaded and the wheelchair is secure before raising the cage just above ground level; assisting staff should always be with the passenger.
- Drive slowly to the aircraft.
- Stop the forklift at least one meter (three feet) from the aircraft.



- e. Raise the cage slowly after the marshaller gives the "thumbs-up" signal.
- f. Make final adjustments according to the marshaller's guidance; apply the hand brake.
- g. After the passenger(s) and wheelchair(s) are loaded, wait for the "all-clear" signal from the marshaller before moving the forklift back one meter (three feet) and then lowering the cage.
- h. Watch for any obstructions while backing away from the aircraft.

5.17.2 Deplaning:

- a. Ensure that the cabin crew are ready to deplane the passenger(s) and have opened the aircraft door.
- b. Drive slowly to the aircraft.
- c. Stop the forklift at least one meter (three feet) from the aircraft.
- d. Raise the cage slowly after the marshaller gives the "thumbs-up" signal.
- e. Make final adjustments according to the marshaller's guidance; apply the hand brake.
- f. After the passenger(s) and wheelchair(s) are loaded, wait for the "all-clear" signal from the marshaller before moving the forklift back one meter (three feet) and then lowering the cage.
- g. Watch for any obstructions while backing away from the aircraft.

5.18 Pallet Loaders

Pallet loaders (also called jumbo container pallet loaders) are used to load/unload unit load devices (ULDs) and pallets on widebody aircraft and some narrowbody aircraft. Line personnel must be thoroughly trained on the importance of aligning the loader with the aircraft and on the ULD handling systems of all aircraft.

Some aircraft handling systems use lateral guides to align with the pallet loader guide rails. This alignment allows ULDs to move directly from the loader into the aircraft. However, improper alignment of the lateral guides slows the handling of ULDs and increases the risk of damage to the aircraft.

5.18.1 There are three requirements for proper alignment:

- a. On some aircraft, the upper platform right side guide rail is aligned with the forward set of lateral guides and the side guide roller.
- b. The buffer of the pallet loader is parallel to the aircraft doorsill.
- c. The buffer is at least 50 millimeters (two inches) and no more than 70 millimeters (three inches) from any doorsill part when that component is in the lowered or opened position.

5.18.2 Pallet loaders should have safety rails on the left side of the forward platform. When operating any pallet loader, line personnel should:

- a. Verify that the safety rail is in the "down" position before approaching the aircraft.

- b. Raise and lock the safety rail only after the pallet loader is in position and the cargo door is open.
- c. Adjust the extension arm to within 50 millimeters (two inches) of the aircraft.
- d. Retract the extension arm and lower the safety rail before closing the cargo door.
- e. Carefully remove the pallet loader from the aircraft.
- f. Report any malfunctioning or inoperative safety rails to the ground equipment maintenance department.

5.19 Main Deck Loaders

Main deck loaders are used to move unit load devices (ULDs) and pallets into and out of the upper deck holds of freighters (cargo aircraft). Loaders should not be driven with the bridge raised except when making the final approach to the aircraft. Do not load or unload empty containers in winds over 40 knots. Do not ride on the loader platform.

Follow these additional guidelines when operating a main deck loader:

- a. Place the main deck loader behind aircraft clearance zone equipment limit lines before aircraft arrival.
- b. Start the loader using the ground or bridge controls.
- c. Climb the ladder to the bridge using three points of contact.
- d. Approach the aircraft only after the anti-collision beacon has been turned off.
- e. With the bridge lowered, align the loader with the cargo door.
- f. Wait for cargo door opening and clearance before approaching.
- g. Raise the bridge to a height that allows safe rollout of the doorsills, then raise the bridge to doorsill height.
- h. Drive the loader into final position for unloading; keep at least 50 millimeters (two inches) away from the doorsill.
- i. Lower the stabilizers only after making sure the area around them is clear.
- j. Change from the "drive" mode to the "operate" mode.
- k. Extend the safety handrails.
- l. Unload and load the aircraft holds according to the load instruction report.



- m. After unloading is completed, wait until the cargo door safety net is in place and clearance is received before lowering the bridge and rear platform.
- n. Retract all safety handrails.
- o. Lower the bridge to the required height and replace the doorsills.
- p. Raise the stabilizers.
- q. Fully lower the bridge and rear platform.
- r. Engage the "drive" mode and move the loader to its parking place.

5.20 Pushback Vehicles

Pushback is the process of moving an aircraft from a gate to a place on the ramp from which it can proceed under its own power. The operation is conducted using a special pushback vehicle (tug) connected to the aircraft nose landing gear by a towbar, or a towbar less tug. The number of staff required to conduct pushback operations can vary considerably depending on company policy and such factors as ramp congestion and gate location. Communication with the flight crew should be conducted from the tug by either the tug driver or his/her assistant. The driver should also be assisted by as many wing walkers as necessary to provide guidance on clearances between the aircraft wing tips and tail and other aircraft or objects.

5.20.1 To connect the towbar:

- a. Ensure that the towbar contacts the nose gear only at the attachment point.
- b. Approach the nose gear slowly.
- c. Remove the lock pin.
- d. Slide the pin to the right.
- e. Lift the towbar head to the nose gear towing point.
- f. Insert the towbar connector on the left side of the towing point.
- g. Slide the lock pin into place to prevent connector guide pin disconnection.
- h. Ensure that the towbar is secured and connect the towbar to the tug.
- i. Lift the towbar to the height of the tug connector.
- j. Carefully drive the tug forward until the towbar eye is between the plates of the tug connector.
- k. Lower the tug connector guide pin through the upper plate, towbar eye and lower plate.

- l. Never drive the towbar into position with the tug.

Drive the tug at a walking pace. Accelerate and brake with easy and steady pressure; do not apply sudden or uneven pressure to the accelerator or brake except in an emergency. Use only low gears, and never shift gears while the tug is in motion. Never exceed the maximum towing angle for the aircraft; the maximum towing angle is usually displayed by red markings (or lines) on the nose gear doors or nose gear leg.

Stop the pushback if the towbar connection separates. Advise the flight crew that you have a breakaway, so that they can use the aircraft wheel brakes to stop. Notify maintenance personnel.

The nose gear should be aligned with the towbar when the aircraft stops. Put the transmission in "neutral" and apply the brake.

5.20.2 Once pushback is completed:

- a. Detach the towbar from the nose gear. Never kick the towbar loose or let it drop freely.

Note. — Remove the towbar from the nose gear first, then from the tug.

- b. Pushback personnel should be clear of the movement area before the aircraft is marshalled for departure.
- c. The pushback person in charge then gives the "end of guidance" hand signal and the "clear to taxi" salute.

Note. — The flight crew will flash the nose gear light, signal by hand or use the company radio frequency to advise that they want to re-establish headset communication.

5.21 High-Lift Cleaning and Catering Vehicles

High-lift vehicles are used to transport personnel, equipment and provisions to aircraft for cleaning and catering. Such a vehicle usually has a crew of two — the driver and the assistant, who also acts as marshaller.

5.21.1 On arrival:

- a. Position the high-lift vehicle behind the aircraft clearance zone equipment limit lines.
- b. Approach the aircraft under guidance from the marshaller.
- c. Stop one meter (three feet) from the aircraft. Place the gear in "park" and apply the hand brake.
- d. Engage the power take-off (PTO), if applicable.
- e. Using three points of contact, climb the ladder to the vehicle's rear van body.
- f. Lower the stabilizers only after the marshaller ensures that all personnel are clear.

- g. Place chocks in front of at least one front wheel.
- h. Raise the rear van body to the height of the aircraft door.
Note.— Never raise the rear van body under an open aircraft door.
- i. Open the safety gates, extend the appropriate safety handrails and lock them into position before opening the aircraft door.
Note.— Guard rails should be extended whenever the vehicle body is in the “up” position.
- j. Open aircraft doors only from the outside. Before opening, give two warning slaps on the outside of the door to warn crewmembers to stand clear and await the “thumbs- up” signal from crewmembers to indicate that the door has been disarmed and is safe to open. Look through the portals in the door to check that the path is clear before opening the door.
- k. Make final adjustments to the front platform extension so the rubber buffer barely touches the aircraft fuselage.
- l. Switch off the engine after the vehicle is positioned correctly.
- m. Load/unload provisions and equipment.

5.21.2 On departure:

- a. Retract the safety handrails and carefully close the aircraft door.
- b. Stow the safety handrails, close the gates and lock them in position; retract the front extension platform.
- c. Close the rear van body doors and lower the rear van body until it rests on the chassis.
- d. Climb down the ladder, remove the wheel chocks and, after returning to the vehicle, disengage the PTO.
- e. Retract the stabilizers only after receiving the “all clear” signal from the marshaller.
- f. Follow the marshaller’s guidance in driving the vehicle away from the aircraft.
- g. Place the vehicle in its assigned parking position.
- h. Place gear in “park,” apply the parking brake and switch off the engine.



SECTION 6

DANGEROUS GOODS (DG) MANAGEMENT

6.1 General Requirements

Dangerous Goods (DG) are articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to the Technical Instructions. All line personnel must strictly comply with national regulations, ICAO Technical Instructions, IATA Dangerous Goods Regulations (DGR), and airport specific procedures governing the acceptance, handling, storage, transport, and emergency response of Dangerous Goods.

At airports such as Tribhuvan International Airport (TIA), strict compliance is essential due to apron congestion, proximity of aircraft stands, passenger movement, and limited maneuvering space. No Dangerous Goods shall be accepted, stored, loaded, or transported without proper declaration, labeling, packaging, and documentation as required by regulatory authorities.

Unauthorized or undeclared Dangerous Goods are considered a serious safety and security violation and must be immediately reported through the Safety Management System (SMS) and Airport Security channels.

6.2 Classification of Dangerous Goods

Dangerous Goods are categorized into the following ICAO classes:

- a. Class 1 – Explosives
- b. Class 2 – Gases (Compressed, Liquefied, Flammable, Toxic)
- c. Class 3 – Flammable Liquids
- d. Class 4 – Flammable Solids
- e. Class 5 – Oxidizers and Organic Peroxides
- f. Class 6 – Toxic and Infectious Substances
- g. Class 7 – Radioactive Materials
- h. Class 8 – Corrosive Substances
- i. Class 9 – Miscellaneous Dangerous Goods (e.g., lithium batteries, dry ice, magnetized materials)

Each class requires specific handling, segregation, storage, and emergency response procedures.

6.3 Mandatory Training Requirements

All personnel involved in passenger baggage handling, cargo processing, aircraft loading, ramp operations, security screening, and supervision must complete Dangerous Goods training in accordance with Civil Aviation Authority requirements and ICAO/IATA standards.

A. Training Categories:

- a. Category A: Acceptance staff (Cargo acceptance personnel)
- b. Category B: Load control and load planners
- c. Category C: Ramp and baggage handlers
- d. Category D: Flight crew
- e. Category E: Security personnel
- f. Category F: Supervisors and operational managers



6.4 Handling Damaged Dangerous Goods Packages

At Tribhuvan International Airport (TIA), the primary accountability for handling damaged Dangerous Goods (DG) packages rests with the Ground Handling Agency and the airline operator, as they are directly responsible for the acceptance, segregation, and safe handling of cargo and baggage during ground operations. The Ground Handling Agency shall immediately isolate and secure the damaged DG package, ensure that no further handling is carried out by unauthorized personnel, and notify the airline and other relevant authorities in accordance with approved Dangerous Goods procedures. The airline operator remains accountable for providing accurate DG documentation and initiating necessary regulatory notifications. The Airside Safety Division and Airport Security support by ensuring containment of the hazard, enforcing airside safety control measures, and preventing access to the affected area until the situation is resolved. All actions shall be carried out in accordance with ICAO Technical Instructions and applicable national aviation safety regulations.

Any package showing signs of leakage, fumes, smoke, bulging, corrosion, wetness, odor, or unusual appearance shall be treated as potentially hazardous.

Immediate Actions (All Classes)

- a. Stop handling immediately.
- b. Do not touch contents without PPE.
- c. Inform Supervisor immediately.
- d. Notify:
 - i. Airside Management Division (AMD)
 - ii. TIA Rescue and Fire Fighting (RFF) Division
 - iii. Airport Security / Military Unit
 - iv. Flight Crew (if aircraft-related)
- e. Establish isolation perimeter (minimum 15 meters, or as advised by RFFS).
- f. Prevent ignition sources in case of flammable materials.
- g. Evacuate non-essential personnel.

Under no circumstances shall a damaged DG package be loaded onto an aircraft.



SECTION 7

NON-FLIGHT AIRCRAFT OPERATIONS

EMPTY AIRCRAFT

7.1 Ramp Operations with Non-Flight (Empty) Aircraft

Non-operational flights, including diplomatic flights, medical flights, VVIP movements, UN mission aircraft, and business charters, may at times operate as "empty aircraft". These aircraft may be positioned for maintenance, overnight parking, storage, operational rotation, or technical checks. Movements may occur between stands, maintenance hangar, remote parking bay, or other designated apron areas. Such aircraft are frequently pushed back from the stand and subsequently towed to another location, or towed directly between apron areas.

Under no circumstances shall a non-flight (empty) aircraft occupy an active operational stand that is designated for scheduled arrivals or departures. Active aircraft stands are reserved exclusively for aircraft that are operating commercial or operational flights within a defined time window. Empty aircraft must be repositioned to a passive aircraft stand, hangar, or any other parking area specifically advised and allocated by the Airside Management Division (AMD). At Tribhuvan International Airport (TIA), the area west of Aircraft Stands 1, 2, 9, and 10, including the NAC hangar area, is considered a non-active aircraft stand zone unless otherwise notified by AMD. These areas are typically used for maintenance parking, extended parking, or non-operational positioning. AMD retains sole authority to determine the operational status of any stand based on traffic demand, operational constraints, and apron capacity management.

To ensure stand availability and operational efficiency, AMD shall allocate an active stand at least two (2) hours prior to the scheduled flight departure time of the aircraft. If an aircraft is parked in a passive stand and is scheduled for operation, the operator or Ground Handling Agent (GHA) must coordinate timely repositioning in accordance with AMD instructions.

Before any movement of an empty aircraft, the responsible supervisor must ensure:

- The stand area is fully cleared of all vehicles, Ground Support Equipment (GSE), and foreign objects.
- All equipment is positioned outside the Aircraft Clearance Zone (ACZ) and equipment limit lines.
- FOD inspection has been conducted and documented.
- Adequate wing-walkers are positioned as required.
- The movement route has been coordinated with AMD and Air Traffic Control (ATC).

Strict adherence to stand allocation policy is critical at TIA due to apron congestion and limited maneuvering space.



7.2 Moving Empty/Non flight Aircraft

The movement of empty aircraft must be conducted in accordance with approved Standard Operating Procedures (SOPs) and under strict safety supervision. Each movement shall be planned in advance, including route selection, timing, communication protocols, and contingency planning for equipment failure or weather deterioration.

A qualified maintenance engineer, certified ground engineer, or licensed pilot must occupy the cockpit during all towing or pushback operations.

During night operations or low visibility conditions, aircraft logo lights, position lights, and any additional lighting approved for ground movement should be activated to enhance aircraft visibility to ATC and other apron users.

Wing-walkers must be deployed on both sides of the aircraft, particularly in congested apron environments such as TIA.

Speed of towing shall remain within airport-prescribed limits and must be reduced when negotiating turns, operating in congested areas, or during adverse weather conditions.

7.3 Stand Repositioning and AMD Coordination

If an empty aircraft is occupying an active stand beyond permissible ground time limits, AMD shall issue repositioning instructions. The aircraft operator and GHA are responsible for arranging tug, manpower, and coordination for timely relocation. The aircraft operator may request stand repositioning to the Airside Management Division (AMD) when operationally required; otherwise, in the case, where apron congestion occurs, AMD has overriding authority to direct immediate relocation of non-operational aircraft in the interest of safety and traffic flow. The AMD shall coordinate stand allocation and movement sequencing and monitor compliance with safety requirements. All stand repositioning activities shall be conducted in coordination with ATC in a controlled manner, ensuring clear communication, proper use of towing equipment, and adherence to airside safety regulations to prevent runway or taxiway conflicts.

7.4 High Engine Run-up

- a. No aircraft shall conduct high engine run-up without prior coordination and approval from the Airside Management Division and Air Traffic Control Tower.
- b. High engine run up activities shall only be conducted at designated locations approved by AMD.
- c. AMD shall assess operational impact, jet blast hazard, aircraft movement conflicts, FOD risks, noise impact, and safety implications prior to allocation of the run-up area.
- d. Aircraft operators and maintenance organizations shall ensure that engine run-up activities are operationally necessary and conducted by qualified personnel only.
- e. High engine run-up shall preferably be conducted during low traffic periods considering operational congestion and limited apron space at TIA.
- f. Prior to commencement of engine run-up activity, Aircraft and AMD shall coordinate with Air Traffic Control Tower regarding:
 - i. Location of run-up activity



- ii. Aircraft movement restrictions
- iii. Taxi routing requirements
- iv. Operational traffic conditions
- v. Any temporary operational limitations
- g. Aircraft shall not commence high engine run up without ATC awareness and operational coordination.
- h. ATC may impose operational restrictions or temporary suspension considering traffic flow and operational safety.
- i. Ground personnel shall maintain safe separation distances from engines and jet blast areas.
- j. Proper communication shall be maintained between maintenance personnel, ground crew, AMD, and ATC.
- k. Foreign Object Debris (FOD) inspection shall be conducted before and after engine run-up activities.
- l. Ground service equipment and loose materials shall be removed from affected areas prior to commencement.
- m. Engine run-up shall be immediately suspended if unsafe conditions are observed.
- n. Night engine run-up activities shall require adequate apron lighting and visibility arrangements.

7.5 Safety Considerations

Due to TIA's single-runway dependency and limited apron maneuvering area, parking of empty aircraft at active stands can significantly disrupt scheduled operations and emergency diversions. Therefore:

- a. No maintenance aircraft shall remain on an active stand without written or radio authorization from AMD.
- b. Long-term parking must be confined to designated passive areas.
- c. Any deviation from stand allocation procedures shall be reported to the Airside Management division.
- d. Recurrent violations may be escalated through the Safety Management System (SMS).



SECTION 8

SEVERE WEATHER OPERATIONS

8.1 Introduction

Severe weather conditions present significant operational, safety, and infrastructure risks to airside personnel, aircraft, ground support equipment (GSE), and airport facilities. At airports with constrained apron space and high traffic density such as Tribhuvan International Airport (TIA), adverse weather can rapidly escalate operational risk due to reduced visibility, slippery surfaces, strong crosswinds, lightning exposure, and water accumulation.

Because weather patterns vary geographically, detailed airport-specific procedures must be developed, documented, and periodically reviewed. These procedures shall define early warning systems, operational limitations, communication protocols, PPE requirements, accountability structures, and recovery processes.

Severe weather management must follow a structured Safety Management System (SMS) approach incorporating hazard identification, risk assessment, mitigation measures, and continuous monitoring.

8.2 Severe Weather

8.2.1 All stakeholders working on Airside shall establish detailed Standard Operating Procedures (SOPs) for severe weather conditions typically encountered in airside operation. Severe weather may include:

- a. Strong winds
- b. Monsoon conditions
- c. Thunderstorms and lightning
- d. Tornadoes (where applicable)
- e. Hurricanes/typhoons/cyclones (regional relevance)
- f. Extreme low or high temperatures
- g. Freezing rain, drizzle, frost, fog
- h. Flooding or water accumulation
- i. Fog, mist, or haze (low visibility conditions)

8.2.2 The establishment of detailed policies must address:

- a. Weather monitoring mechanisms
- b. Alert issuance procedures
- c. Time limits and validity of alerts
- d. Reduction or suspension of ramp activities
- e. Safe resumption of operations
- f. Mandatory PPE requirements
- g. Stakeholder responsibilities



8.3 Severe Weather Alert System

8.3.1 Alert Issuance

Severe weather alerts shall be issued by:

- a. Meteorological Office / Airport Meteorological Unit
- b. Air Traffic Control (ATC)
- c. Airside Management Division (AMD)
- d. Airport Operations Control Center (AOCC), if applicable

Alerts must be communicated via:

- a. Official radio frequency
- b. Official communication group
- c. Public address announcements
- d. Written operations bulletin
- e. NOTAM (if operational impact is significant)

8.3.2 Alert Levels (Example Structure)

Level 1 – Advisory (Watch Condition)

Weather forecast indicates potential risk within 1–2 hours. Preparatory actions begin.

Level 2 – Warning (Operational Impact Likely)

Hazard imminent or ongoing. Ramp activities restricted.

Level 3 – Emergency (Unsafe Conditions)

All non-essential ramp operations suspended immediately.

8.4 General guidelines for Severe Weather Condition

- a. Continuously stay aware of current weather conditions and alerts.
- b. Stop work immediately when instructed or when conditions become unsafe.
- c. Avoid exposure to open ramp areas during lightning, heavy rain, or strong winds.
- d. Take shelter in designated safe areas or inside vehicles when required.
- e. Secure all tools, equipment, and loose materials before weather deteriorates.
- f. Maintain safe distance from aircraft, vehicles, and operating equipment.
- g. Follow marked safe routes and avoid unnecessary movement on apron/runway.
- h. Use high-visibility clothing and safety gear at all times.
- i. Operate vehicles only when essential and at controlled speed.
- j. Switch on lights, beacons, and visibility aids during low visibility conditions.
- k. Report any hazards such as flooding, debris, or damaged surfaces immediately.
- l. Do not attempt to continue tasks if visibility is unsafe.
- m. Follow instructions from supervisors strictly and promptly.

8.5 Reduction and Suspension of Ramp Activities

8.5.1 Ramp activities shall be reduced or suspended when:

- a. Wind exceeds predefined safety thresholds.
- b. Lightning is detected within operational radius.
- c. Visibility falls below apron movement minima.



- d. Surface contamination creates skid risk.
- e. ATC declares emergency weather condition.
- f. AMD issues formal suspension order.

8.5.2 Immediate action:

- a. Stop fueling.
- b. Stop loading/unloading.
- c. Suspend aircraft movement.
- d. Evacuate non-essential personnel.
- e. Secure equipment.

8.6 Resumption of Ramp Activities

Ramp operations may resume only when:

- a. Weather alert downgraded.
- b. AMD conducts apron inspection.
- c. FOD check completed.
- d. Surface condition verified.
- e. ATC clearance provided.
- f. Equipment integrity confirmed.

A formal "All Clear" message must be communicated through official channels before resuming full activity.



SECTION 9**CONSTRUCTION AND MAINTENANCE WORK ON AIRSIDE****9.1 Introduction**

As TIA operates with limited apron capacity, constrained maneuvering areas, high aircraft movement density, terrain-related operational sensitivities, and continuous operational demand, all construction and maintenance activities within operational areas shall be strictly controlled to prevent hazards to aircraft operations, personnel safety, communication systems, navigation aids, and airport infrastructure. The procedure is intended to ensure that all works are conducted in a safe, coordinated, operationally feasible, and environmentally responsible manner without adversely affecting airport operations.

9.2 Accountable Divisions and Responsibilities**9.2.1 Civil Engineering Division**

The Civil Engineering Division shall be the accountable authority for all civil engineering related construction and maintenance works within airside areas. The division shall be responsible for:

- a. Prevention of Foreign Object Debris (FOD) generated during works.
- b. Proper barricading, marking, and illumination of work areas.
- c. Coordination with AMD regarding operational impact and work scheduling.
- d. Supervising contractors and ensuring compliance with airport safety requirements.
- e. Minimizing operational disruption considering TIA's limited maneuvering space and traffic congestion.

9.2.2 Electro Mechanical Division

The Electro Mechanical Division shall be the accountable authority for all electrical and mechanical-related works within airport premises. The division shall be responsible for:

- a. Coordinating planned maintenance or installation with AMD.
- b. Preventing hazards related to exposed cables, electrical equipment, or power interruption.
- c. Ensuring compliance with ICAO operational safety standards relating to aerodrome lighting and electrical systems.
- d. Supervising contractors and technical personnel during electrical works.

9.2.3 Communication and Navigation Service Division

The Communication and Navigation Service Division shall be the accountable authority for all communication, navigation, and surveillance-related works within airport premises. The division shall be responsible for:

- a. Supervising contractors and technical personnel conducting CNS-related works.
- b. Coordinating operational requirements with AMD.



9.2.4 Airside Management Division (AMD)

The Airside Management Division (AMD) shall be responsible for operational coordination, airside safety oversight, and operational assessment of all construction and maintenance works conducted within operational areas of TIA. AMD shall be responsible for:

- a. Evaluating operational impact on aircraft movement areas and apron activities.
- b. Coordinating work schedules considering traffic congestion and operational peak hours.
- c. Monitoring airside safety compliance during execution of works.
- d. Ensuring proper barricading, markings, lighting, and worksite safety arrangements.
- e. Assessing FOD risks, wildlife hazard risks, and vehicle movement conflicts.
- f. Coordinating with Air Traffic Services, Airport Security, and emergency services where required.
- g. Imposing operational restrictions or suspension of works if safety is compromised.
- h. Conducting inspections before commencement and after completion of works.
- i. Verifying restoration of operational areas prior to reopening for aircraft operations.
- j. Monitoring compliance with ICAO Annex 14 operational safety requirements.
- k. Ensuring that no unauthorized work is conducted within restricted operational areas.
- l. Maintaining records of work approvals, inspections, incidents, and operational coordination activities.

9.3 Emergency Works

In case of emergency maintenance involving operationally critical infrastructure such as runway lighting failure, pavement damage, electrical outage, drainage blockage, communication failure, fuel leakage in the vicinity, or navigational aid malfunction, immediate corrective action may be initiated by the concerned division. However, AMD, Air Traffic Services, Airport Emergency Services, and other relevant operational stakeholders shall be informed immediately prior to or during the initiation of emergency response activities.

9.4 Completion of Work and Restoration

Upon completion of any construction or maintenance activity, the accountable division shall ensure full restoration of the affected area to operationally safe condition. All debris, unused materials, temporary structures, barricades, equipment, waste materials, and foreign objects shall be removed immediately.

A joint inspection shall be conducted by the concerned division, AMD, and other relevant stakeholders where applicable to verify operational safety, pavement condition, lighting functionality, marking integrity, drainage condition, and absence of hazards before the area is reopened for operational use.



APPENDIX A

ILLUSTRATIONS AND SUPPLEMENTARY INFORMATION

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Appendix A-1

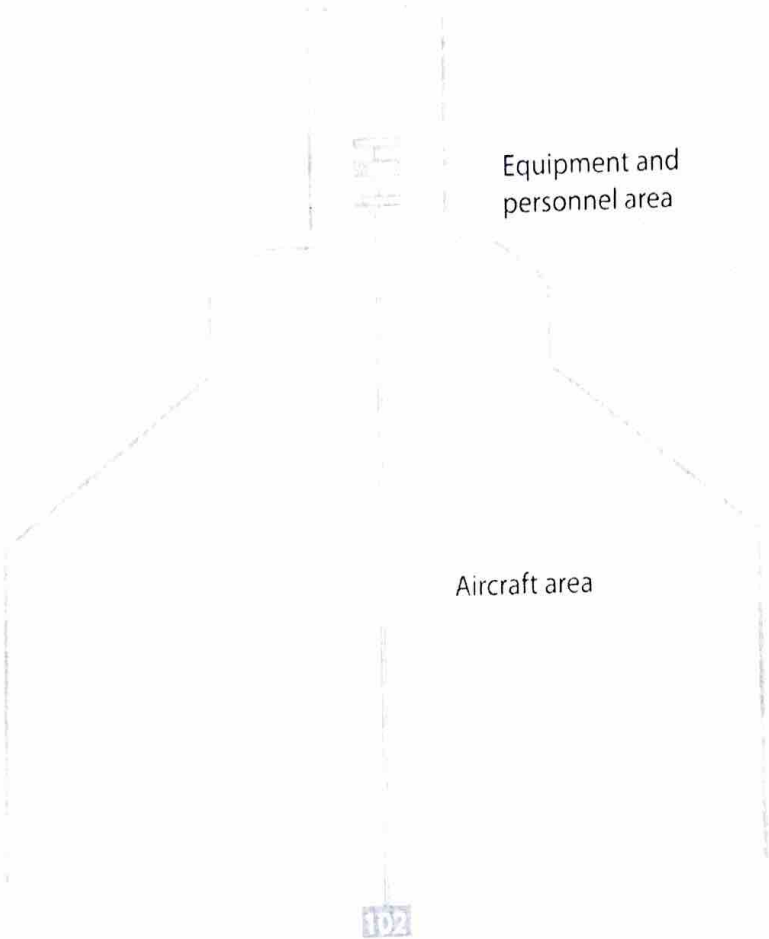
Aircraft Clearance Zone



July, 2026

Appendix A-2

Aircraft Clearance Zone Markings



A handwritten signature in blue ink, appearing to be "S. H. S."

A handwritten signature in blue ink, appearing to be "S. H. S."

A handwritten signature in blue ink, appearing to be "S. H. S."

Appendix A-3

Circles of Safety



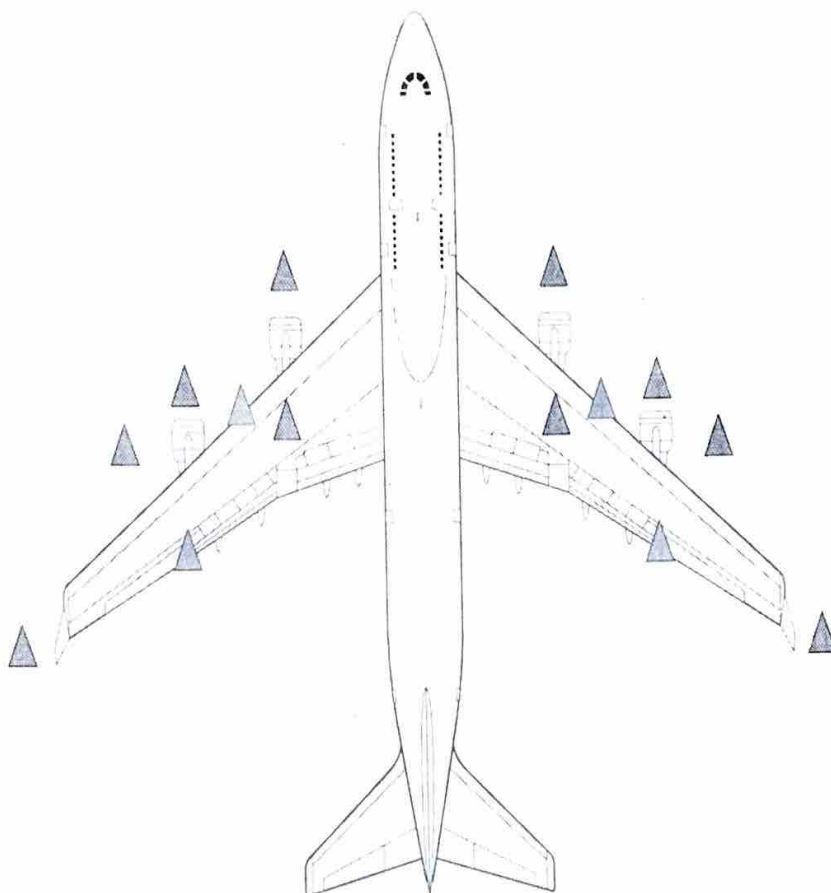
Not to scale

- Test brakes
- Stop before proceeding slowly



Appendix A-4

Safety Cone Placement

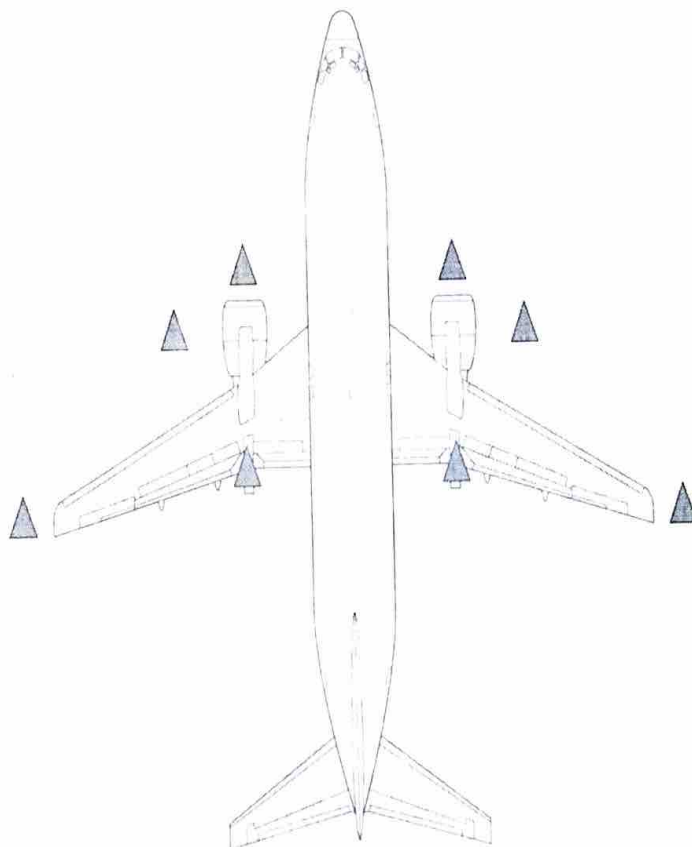


Widebody Aircraft
(four engines)



Appendix A-5

Safety Cone Placement



Widebody Aircraft
(two engines)



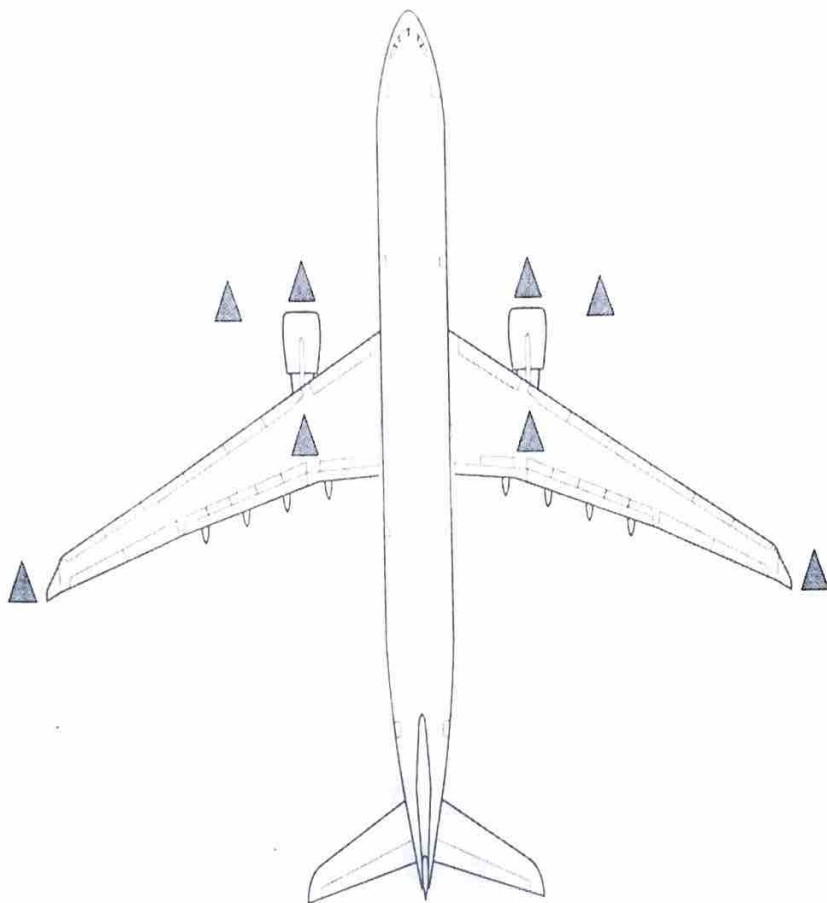
A large, stylized handwritten signature in black ink.

A handwritten signature in black ink, consisting of a few bold strokes.

A handwritten signature in black ink, appearing to be a cursive name.

Appendix A-6

Safety Cone Placement



Narrowbody Aircraft



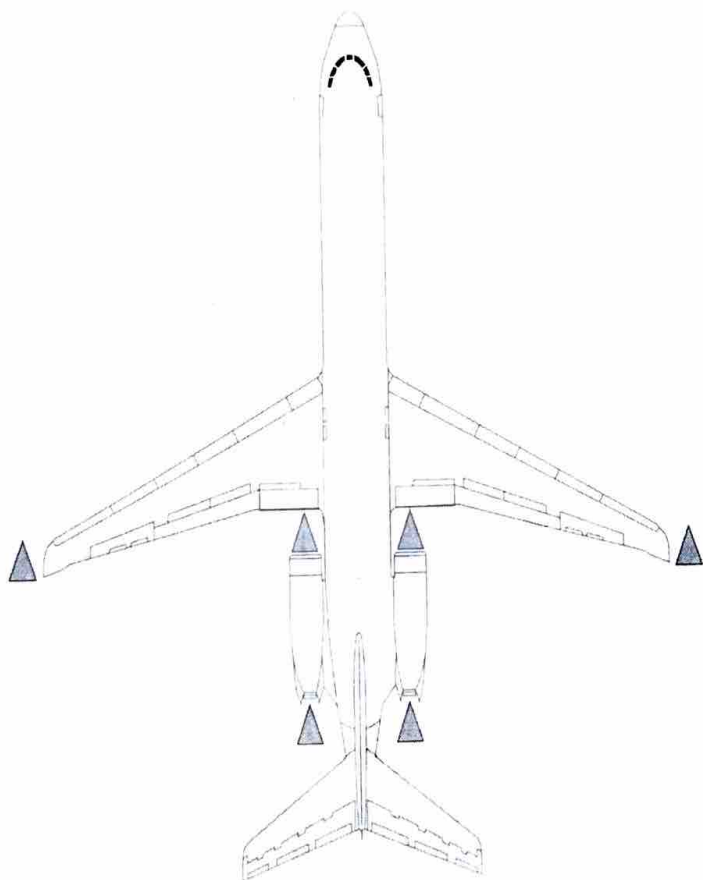
A handwritten signature in blue ink, consisting of a large loop followed by a horizontal line and a small flourish.

A handwritten signature in blue ink, appearing as a stylized 'S' or 'G' followed by a vertical line.

A handwritten signature in blue ink, featuring a series of connected loops and a final horizontal stroke.

Appendix A-7

Safety Cone Placement



Narrowbody Aircraft
(fuselage-mounted engines)



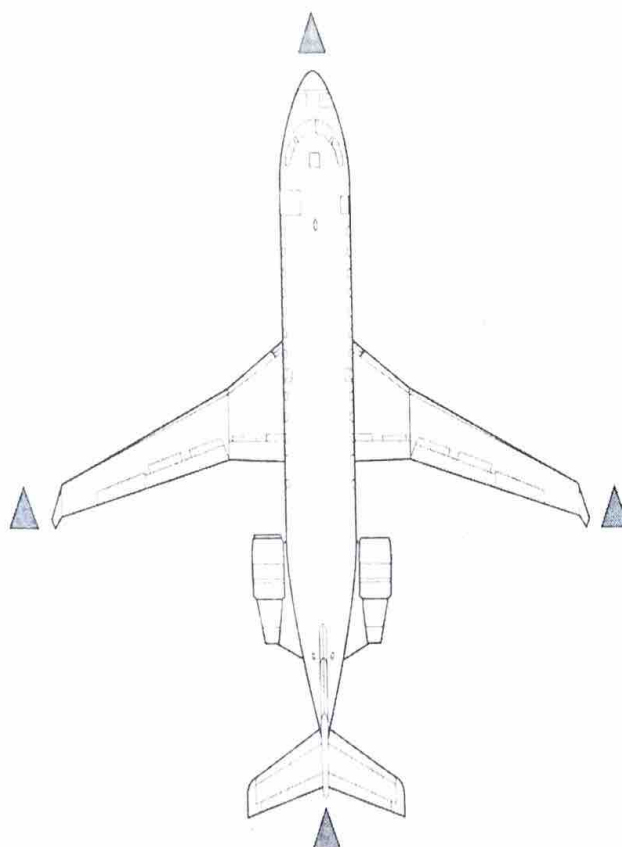
A handwritten signature in blue ink, appearing to be 'S. H. ...'.

A handwritten signature in blue ink, appearing to be 'D. ...'.

A handwritten signature in blue ink, appearing to be 'S. ...'.

Appendix A-8

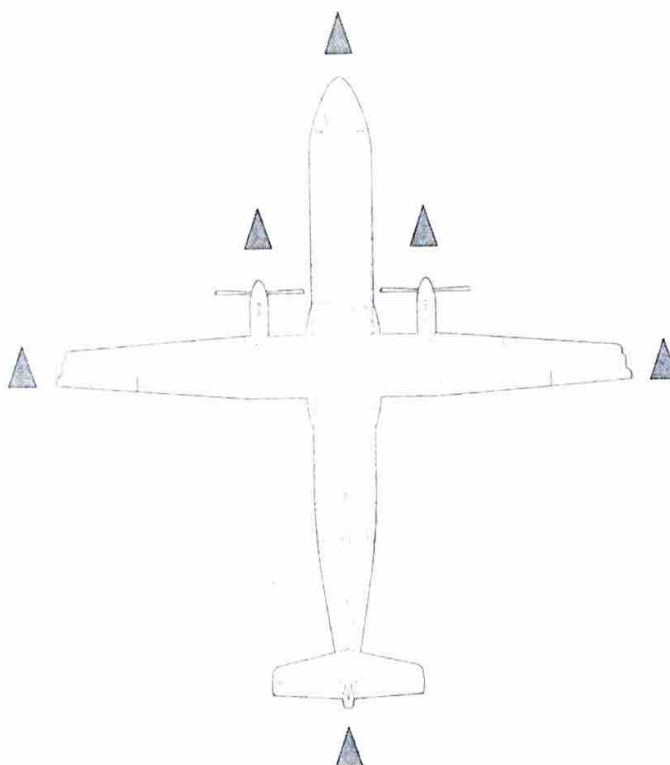
Safety Cone Placement



Regional Jet

Appendix A-9

Safety Cone Placement



Propeller-Driven Aircraft

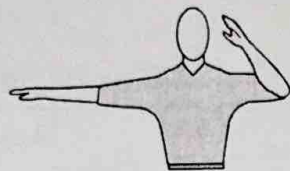
[Signature]

[Signature]

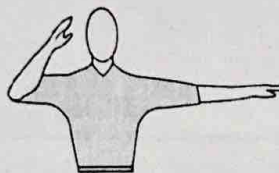
[Signature]

Appendix A-10

Standard Hand Signals



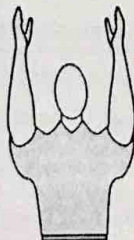
Left Turn



Right Turn



Wheel Chocked



Straight Forward or Back



Stop

Note: These are a few examples of common hand signals. Marshalls should use the signals shown in International Civil Aviation Organization Annex 2, *Rules of the Air*, and in the International Air Transport Association *Airport Handling Manual*. ICAO recommends that the marshaller's hands be "illuminated as necessary" to be visible to the pilot. IATA requires that the marshaller wear a "distinctive identification vest" and use fluorescent-colored gloves, wands or other devices during the day, and illuminated wands at night or in low visibility.

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Appendix A-11

CIVIL AVIATION AUTHORITY
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A:11 Airside Personnel Breath Alcohol Test Form

Date of Test:

Time of Test:

Shift Type:

Location/ Duty Post:

1. CANDIDATE INFORMATION DETAILS

Full Name of Employee:

Designation/Role:

Company/Stakeholder Agency:

Airside Pass Number

License/Permit Reference:

2. OPERATIONAL REASON FOR TESTING

- ☐ Mandatory Pre-Shift Scree ☐ Routine Gate Random Sweep ☐ Post-incident/Accident Investigation
☐ Suspicion/Reasonable Cause Follows-up

3. TEST RESULTS & MEASUREMENTS

First Test Reading: 100ml

mg/

Confirmation Reading (if Required): 100ml

mg/

Final Status Determination: ☐ PASS (Absolute 0.00% Concentration)☐ FAIL (Any trace reading above 0.00 mg/100ml)

4. ADMINISTRATION ACTION TAKEN (IN CASE OF FAILURE /REFUSAL)

- ☐ None (Candidate Passed ☐ Immediate Grounding from Airside Duties
☐ Temporary Confiscation of Airside Pass ☐ Handed Over to Airport Security/ Police Office

Additional Action Remarks:

CRITICAL SAFETY MANDATE: In accordance with Civil Aviation Requirement (CAR) and TIA Airside Safety Operation Procedures, all airside operations maintain a zero-tolerance policy. Any trace of alcohol or refusal to immediately submit to a requested breath screening constitutes a major security threat and results in immediate grounding, airside pass confiscation, and summary termination of airside entity privileges

Airside Duty Officer

Airline/ Supervisor

Witness Signature

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Appendix A-12

Airside Vehicle Speed check Form

APPENDIX 12: AIRSIDE VEHICLE SPEED CHECK FORM

AIRSIDE MANAGEMENT DIVISION

TRIBHUVAN INTERNATIONAL AIRPORT (TIA)

GENERAL INFORMATION

Date:

Time:

Location (Airside Area):

Weather Condition: ☐ Clear ☐ Rainy ☐ Foggy ☐ Other

S.N.	Time	Vehicle Reg No.	Agency / Operator Name	Vehicle Type	Observed Speed (km/h)	Speed Limit (km/h)	Violation Type ☐ Over Speed, ☐ Reckless Driving, ☐ N/A	Immediate Action Taken / Remarks

SUMMARY & TOTALS

Total Vehicles Checked:

Total Violations Detected:

Radar Device ID / Serial No.:

SIGN-OFF & AUTHORIZATION

Reported By (Inspecting Officer)
Name, Designation,
Signature,
Date

Reviewed By (Chief of Airside Division)
Name, Designation,
Signature,
Date



CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A-13: Airside Vehicle Standard Check Form

Reference No:

Compliance Parameter	YES	NO	Remarks/Defects
Blue Book Renewal Validity	☐	☐	
Air Pollution Clearance Verification	☐	☐	

Safety & Technical Components	YES	NO	Remarks/Defects
Hood Beacon Light Operational Status	☐	☐	
Side Mirrors (Left & Right) Visibility	☐	☐	
Brake Lights & Headlights Functionality	☐	☐	
Wipers & Windshield Integrity	☐	☐	
Reverse & Gear Horn/Alarm System	☐	☐	
Tyre Condition & Thread Safety Depth	☐	☐	
Seatbelts & Basic Cabin Controls	☐	☐	

SAFETY COMPLIANCE STANDARDS: All vehicles operation in the airside operational environment must comply strictly with CAA technical safety requirements. Vehicles failing any components listed above are subject to immediate suspension from airside operations until rectified and re-inspected.

Driver / Representative Signature

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Appendix A-14

Airside Aircraft Reposition Request Form

CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A-14: Aircraft Reposition Request Form

Date of Request:

Time of Request:

Request Ref No:

1. AIRCRAFT & OPERATOR PARTICULARS

Airline / Operator Name:
Aircraft Registration No.

Aircraft Type / Model:
Flight Number (if applicable):

2. REPOSITIONING MOVEMENT SPECIFICATIONS

Current Stand / Location:
Scheduled Time of Towing:
Reason for Repositioning:

Proposed Stand / Location:
Ground Handler Assignment:

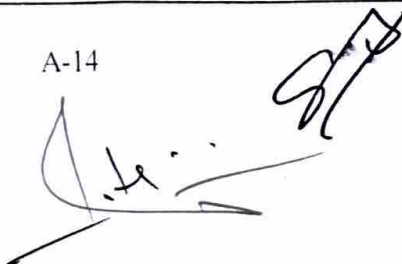
3. OPERATIONAL AUTHORIZATION & COMMENTS

Special Instructions / Duty Officer Assessment Notes:

OPERATIONAL COMPLIANCE NOTICE: Towing and reposition movements must strictly correspond with Air Traffic Control (ATC) clearance slots and ground handling coordinator updates. No aircraft movement on the taxiways or apron segments shall proceed without approved Signaling support

Duty Officer Signature

Airline Representative / ground Handler



Appendix A-15 Incident/Accident Report Form

To be completed by the Aerodrome Safety Manager or senior representative of the Airside Operator for all incidents and accidents which would likely seriously endanger people, aircraft, vehicles or equipment.

Name of the person that completed this report:

Organization and Position:

Telephone number:

Date of Incident/Accident:

Time:

Location:

Date of Report:

Names of Witnesses

Witness 1

Name:

Address:

Telephone

Witness 2

Name:

Address:

Telephone :

Witness 3

Name :

Address:

Telephone

Details

Details of the Incidents/Accident: (Include details of people involved, aircraft vehicles and equipment. Include details of what took place that contributed to the accident / incident)

Details of any injuries:

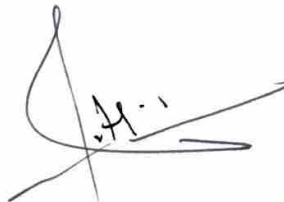
Details of damage to aircraft/vehicle/equipment/facilities:



Appendix A-16

Daily Airside Inspection Check List Form

S.no.	Facilities	Inspection Items	Findings	Date: Remarks			
1	Runway	FOD					
		Marketing					
		Signs					
		Fuel/Oil Spillage					
2	Taxiway	International Parking Bay					
		FOD					
		Marketing					
		Signs					
3	Apron	Fuel/Oil Spillage					
		Domestic Parking Bay					
		FOD					
		Marketing					
4	Apron	Signs					
		Fuel/Oil Spillage					
		FOD					
		Marketing					
5	Apron	Signs					
		Fuel/Oil Spillage					
		Helicopter Parking Bay					
		FOD					
6	Equipment Yard	Marketing					
		FODS					
		GSE	In Proper Place Please Tick ☐ Not In Proper Place Please Tick ☐				
		Checked	Please Tick ☐ Not Checked Please Tick ☐				
7	Housekeeping staff for Apron Cleaning	Int'l Apron	On Duty	Not Found On Duty			
			Please Tick ☐	Please Tick ☐			
		Dom. Apron	On Duty	Not Found On Duty			
			Please Tick ☐	Please Tick ☐			
		Helicopter Parking Bay	On Duty	Not Found On Duty			
			Please Tick ☐	Please Tick ☐			
8	Status of Solid Waste Management	Inside Airside	Managed	Need to Managed			
			Please Tick ☐	Please Tick ☐			
		Outside Airside	Managed	Need to Managed			
			Please Tick ☐	Please Tick ☐			
9	Runway	Runway 02	SVCBLE	U/S	Under Maint.		
			Please Tick ☐	Please Tick ☐	Please Tick ☐		
		Runway 20	SVCBLE	U/S	Under Maint		
			Please Tick ☐	Please Tick ☐	Please Tick ☐		
		Taxiway E	SVCBLE	U/S	Under Maint		
			Please Tick ☐	Please Tick ☐	Please Tick ☐		
		Vehicle 1	SVCBLE	U/S	Under Maint		
			Please Tick ☐	Please Tick ☐	Please Tick ☐		
		Vehicle 2	SVCBLE	U/S	Under Maint		
			Please Tick ☐	Please Tick ☐	Please Tick ☐		
		10	Pest Repeller	Power Station 1 (P1)	SVCBLE	U/S	Under Maint
					Please Tick ☐	Please Tick ☐	Please Tick ☐
Power Station 2 (P2)	SVCBLE			U/S	Under Maint		
	Please Tick ☐			Please Tick ☐	Please Tick ☐		





11.	Communication Set	Apron Section	Set	SVCBLE	U/S	Intermitant	Remarks
			VHF	Please Tick	Please Tick	Please Tick	
			HF	Please Tick	Please Tick	Please Tick	
		Apron Section 1	Set	SVCBLE	U/S	Intermitant	Remarks
			VHF	Please Tick	Please Tick	Please Tick	
			HF	Please Tick	Please Tick	Please Tick	
		Apron Section 2	Set	SVCBLE	U/S	Intermitant	Remarks
			VHF	Please Tick	Please Tick	Please Tick	●
			HF	Please Tick	Please Tick	Please Tick	
	12. Other Significant Matter						

Inspected and Reported by:

Name:

Designation:-

Signature:-

CC:

General Manager

Director, AOD

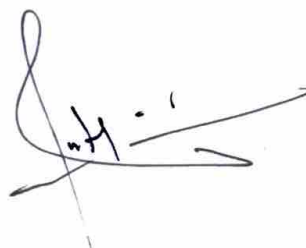
Chief, AMD

Aerodrome Safety Office.

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Appendix A-17

Wildlife Activity Patrol and Dispersal Control Record Form

CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A-17: Wildlife Activity Patrol and Dispersal Control Record Form

Date of Patrol:

Patrol Vehicle Call Sign:

Wildlife Unit Officer Name:

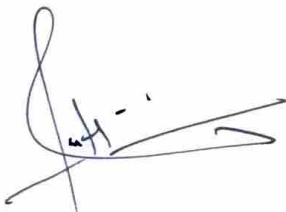
Weather / Sky Condition

S.N.	TIME	SPECIES TYPE IDENTIFIED	COUNT/ QTY	RUNWAY SECTOR / GRID	DISPERSAL ACTION TAKEN
1					
2					
3					
4					
5					
6					
7					

HIGH RISK CONFLICT PROTOCOL: Large raptors (e.g. Black Kites) or stray animals seen inside runway safety strips require instant scare cartridge activation. Real time bird numbers near flight approach profiles must be relayed immediately to Kathmandu Tower on 118.10 MHZ to warn incoming aircraft.

Patrolling Bird Scare Officer

AMD Duty Officer



Appendix A-18
Runway/Taxiway Closure Reporting Form

CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE

Appendix A- 18: Runway/Taxiway Closure Reporting Form

Date of Report: Time of Report: Closure Ref ID:

1. CLOSURE PARAMETERS & TIMELINE

Facility Closed Specific Portion /Limits:
Effective From (Date/Time) Expected Reporting (Date/Time)
Nature of Closure: ☐ Scheduled Maintenance (Pavement / Lighting)
☐ Unscheduled/Emergency Repair ☐ Incident / Obstruction clearance

2. OPERATIONAL NOTIFICATIONS & SAFETY COORDINATION

NOTAM Reference Number: ATC Coordination Initiated By:
Safety Measures Deployed: ☐ Lighted "X" Markers
☐ Interlocking Barricades & Cones ☐ Guard Vehicle Posted

3. OPERATIONAL NOTES & CLEARANCE AUTHORIZATION

Work B Description / Reason for Closure & Inspection Findings:

CRITICAL SAFETY DIRECTIVE: No closed movement areas may be re-entered -or reopened to live aircraft traffic without a full tactile physical inspection by the Airside Management Division and explicit verbal/written clearance coordination with Air Traffic Control.

Inspecting / Initiating Engineer
Signature

AMD Duty officer



Appendix –A-19
Waste Fuel Reporting Form

CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A- 19: Waste Fuel Reporting Form

Report Number:

Date:

Company / Airline Name:

Aircraft Tail No.

WASTE FUEL BREAKDOWN DETAILS

MATERIAL ORIGIN CETEGORY	MEASURED VOLUME (LITERS)
Aircraft System Defueling Drainage	
Maintenance System Flush & Traps Waste	
Total Transferred Volume	

FIRE DIVISION DISPOSAL COMPLIENCE: All classified waste fuel must be surrendered directly to the Rescue & Fire Fighting (RFF) Division for absolute isolation or controlled live training usage.

Handed Over By Operator

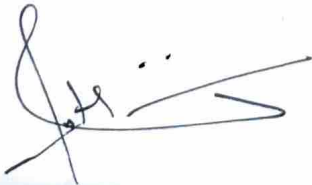
Received by (RFF Division)

Authorized By (AMD)

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Appendix A-20

Rejected Take-off (RTO) Airside Safety Reporting Form

CIVIL AVIATION AUTHORITY OF NEPAL
TRIBHUVAN INTERNATIONAL AIRPORT CIVIL AVIATION OFFICE
Appendix A-20 Rejected Take-Off (RTO) Airside Safety Reporting Form

RTO Incident File ID:

Date of Event:

Airline /Operator Name:

Flight Number & Route

Aircraft Frame Type:

Registration Number:

1. OPERATIONAL PARAMETERS OF ABORT

Estimated Speed at Abort:

Knots

Aborting Position on Runway:

Pilot Stated Cause/ Engine Alarm:

2. MANDATORY SAFETY INSPECTION AUDIT FINDINGS

EVALUATED RUNWAY/AIRCRAFT ITEM	CONDITION FINDING		TECHNICAL REMARKS/EVIDENCE DETAILS
Runway surface scorch/Brake Marks	☐ Normal	☐ Damaged	
Tyre Shreds/Fuselage Metal Debris	☐ None	☐ Found Debris	
Hydraulic Leaks/Brake Fluid Pools	☐ Clear	☐ Leak Located	
Runway Edge / Centerline Light Health	☐ Ok	☐ Broken Fixture	

CRITICAL SAFETY MANDATE: High speed braking causes extreme brake assembly temperatures. In compliance with the TIA Airport Service Manual, a runway must be kept closed for a physical sweep and inspection until cleared by the Airside Duty Officer

Initiating Airside Officer

Control Tower Sign ATC

TIAAO Duty Manager

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Appendix A-21

Voluntary Safety Reporting Form

Note: The information supplied in this form will only be used to enhance safety. Under no circumstance will your identity be disclosed to any person in the airport or to any other organization, agency or person without your permission. After completing your part of the form submit to the Airside Management Division Office

Name (Optional)

Organization / Position (Optional)

[Name and position, if provided, to be discarded by the Airside Safety Manager before processing this form further]

PART-A

TO BE COMPLETED BY THE PERSON IDENTIFYING THE HAZARD

Please fully describe the Hazard.

Date of occurrence:.....Time:

Location of hazard:.....

Description.....

Suggestions for corrective actions. ,

PART- B

TO BE COMPLETED BY AIRSIDE SAFETY MANAGER

The report has been de-identified and entered into the safety database

Name.....

Signature.....Date.....

What action is required to ELIMINATE OF CONTROL the hazard and PREVENT injury?

Resources Required:

Responsibility for action:

Referred to..... for further action.

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