Tampa International Airport

HILLSBOROUGH COUNTY AVIATION AUTHORITY

Ground Operations Manual

February 26, 2024

RECORD OF CHANGES

Revision Number	Date	Page
1	12/20/2017	19, 23, 34
2	3/5/2018	24,34
3	4/26/2018	6,27,34,35
4	6/06/2019	4,6,14,17,26,29,30,31,33,35,38
5	9/23/2019	All pages
6	6/1/2020	5-6,10,12-17,19,22,25,30,32,34-36,37,38-40,45
7	8/14/2020	6-8,15,16,18,19,31,46
8	9/8/2020	19,23
9	8/17/2021	14, 18, 28, 43, 40, 44, 46
10	7/1/2022	4, 13, 17, 18, 19, 21, 22, 24, 25, 29, 30, 31, 39, 44, 45, 47, 48, APPENDIX C
11	7/21/2022	14
12	12/03/2022	1, 2, 29
13	2/26/2024	1, 4, 6, 8, 19, 20, 21, 28-29, 30, 33-34, 44-49

BACKGROUND

The Hillsborough County Aviation Authority (Authority) is an independent special district of the State of Florida, with exclusive jurisdiction, control, supervision, and management of Tampa International Airport (Airport) and all publicly owned airports in Hillsborough County. The Authority's mission is to be a major driver in the economic growth of the Tampa Bay region. As the Airport continues to grow, airport ground operations continue to expand and become more complex. Ensuring safe ground operations is a top priority for the Authority.

A key component to safety and compliance is ensuring easy access to Policies, Standard Procedures, Operating Directives, and Rules and Regulations, which, in pertinent part, govern the use of the airsides, aprons, and baggage handling locations of the Airport. This Ground Operations Manual (GOM) combines these relevant Airport Rules and Regulations, Policies, Standard Procedures, and Operating Directives into one document.

DISCLAIMER

Every person or company conducting business at the Airport is subject to governmental laws and regulations, as well as the Rules and Regulations, Policies, Standard Procedures and Operating Directives of the Authority. This GOM does not list or reference all such applicable government laws and regulations that may apply. Persons or companies conducting business at the Airport are expected to familiarize themselves with and comply with applicable laws and regulations. In the event of a conflict or inconsistency between the terms and conditions in the GOM and any applicable law or regulations, the applicable law or regulation shall prevail. The terms and conditions set out in the GOM are incorporated by reference into the Authority's contracts, agreements, and leases with Airport community members.

LIST OF ACRONYMS

AC	Advisory Circular, issued by the Federal Aviation Administration
ACM	Airport Certification Manual
ACS	Access Control System
ADM	Airport Operations Duty Manager
AEP	Airport Emergency Plan
AFSS	Apron Fuel Shutdown System
AOA	Air Operations Area
AOC	Airport Operations Center
AOM	Airfield Operations Manager
AOS	Airfield Operations Supervisor Airport
APD	Police Department
ARFF	Aircraft Rescue and Firefighting
ASP	Airport Security Plan
ATCT	Air Traffic Control Tower
BIDS	Baggage Information Display System
CAD	Computer-Aided Drafting
CAV	Clean Air Vehicle
CBP	U.S. Customs and Border Protection
CCTV	Closed Circuit Television
CFR	Code of Federal Regulation
DBA	Doing Business As
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FBO	Fixed Base Operator
FDA	Food and Drug Administration
FIS	Federal Inspection Service
FOD	Foreign Object Debris
GA	General Aviation
GOM	Ground Operations Manual
GPU	Ground Power Unit
GRE	Ground Run-Up Enclosure
GSE	Ground Service Equipment
HAZMAT	Hazardous Material(s)
HVAC	Heating, Ventilating and Air Conditioning
ID	Identification
IROPS	Irregular Operations
LWS	Lightning Warning System Movement Area
MAT	Trained
NFPA	National Fire Protection Association
NMAT	Non-Movement Area Trained

NOTAM	Notice to Airmen
PBB	Passenger Boarding Bridge
PCA	Preconditioned Air
PPE	Personal Protection Equipment
PPR	Prior Permission Required
SIDA	Security Identification Display Area
SMS	Safety Management System
SWPPP	Storm Water Pollution Prevention Plan
TOM	Terminal Operations Manager
TSA	Transportation Security Administration
ULD	Unit Load Device
VDGS	Visual Docking Guidance System

DEFINITIONS

Airport: Tampa International Airport.

Air Operations Area (AOA): The restricted areas of the Airport, including the movement areas (runways, taxiways), and aprons which include the taxilanes, areas around the airsides and hardstands.

Airfield: Any area(s) of the Airport where aircraft, vehicles, and/or equipment operate within the boundaries of the AOA perimeter fence line, including the Movement and Non-Movement Areas.

Air Carrier: Any air carrier or foreign air carrier, as defined in 49 U.S.C. § 40102, as amended, operating an air transportation business from time-to-time at the Airport.

Air Traffic Control Tower (ATCT): The FAA Air Traffic Control Tower located at the Airport.

Airline: Any FAR Part 121 operator and/or FAR Part 135 operator of aircraft(s).

Airport Operations Center (AOC): The AOC is the primary point of contact for the Airport Operations Department for all operational matters pertaining to the operation of the Airport.

Airport Operations Department: Duty Staff consisting of Airfield Operations Managers (AOM), Airfield Operations Supervisors (AOS), Terminal Operations Managers (TOM), Ground Transportation personnel, and the Airport Operations Center (AOC).

Airport Police Department (APD): The organization authorized by the Authority to administer the continuing enforcement of Florida State Laws, Rules and Regulations, and Policies and Standard Procedures applicable to the Airport and its operations and acting under the direction of the Director of Public Safety and Security or designee.

Airport Service Equipment: Vehicles and equipment routinely used for service, maintenance, or construction at the Airport.

Approval: Permission granted, in writing, by the Chief Executive Officer (CEO) or designee.

Apron: Defined area of the Airport intended to accommodate aircraft for the purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

Apron Service Road: A path on the Apron which is outlined by solid white lines and/or alternating white and black painted lines and commonly referred to as a “zipper road.”

Authority: The Hillsborough County Aviation Authority.

Authorized: Acting under or pursuant to a written contract, permit, or other evidence of right issued by the Authority.

Baggage Claim: The baggage claim areas located on the north and south sides of the first level of the Main Terminal, including, but not limited to, doorways, exterior curbs, elevator and escalator landings, and tenant offices.

Baggage Information Display System (BIDS): The information screens utilized to display baggage claim information to passengers throughout the Main Terminal and Baggage Claim areas.

Driver or Vehicle Operator: The person who is driving or is the vehicle device operator in physical control of a motorized vehicle or Ground Vehicle Device.

Escort: An authorized person who escorts another person(s) and/or vehicles that does not have access to a particular location on the Airport. Escorts must always be able to direct and control the activities of the person and/or vehicle being escorted, pursuant to Authority escort policies and procedures.

Federal Inspection Service (FIS): The location where CBP officers or employees are assigned to accept entries of merchandise, clear passengers, collect duties, and enforce the various provisions of CBP and related laws.

Foreign Object Debris (FOD): Any item located on the AOA that can be ingested or blown by an aircraft engine causing damage to property or personnel.

Gate Planner: The designated Authority staff member responsible for reviewing and managing scheduled gate assignments (Airline schedule changes only, not day-to-day gate assignments or changes and issues).

Ground Handler: Any company, organization, or individual contracted by a commercial air carrier to service their aircraft and/or passengers at the Airport.

Ground Service Equipment (GSE): Vehicles and equipment approved and used on the aircraft aprons or parking areas in support of aircraft operations.

Ground Vehicle Devices: Motorized equipment or motor vehicles which are used for transporting goods, passengers, or equipment upon land.

Hazard: Any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property; or damage to the environment. A Hazard is a condition that is a prerequisite to an accident or incident.

Hazardous Material: Any substance or material capable of posing an unreasonable risk to health, safety, and/or property, including, but not limited to: gasoline, diesel fuel, other petroleum hydrocarbons, natural gas liquids, antifreeze, chemical de-icing materials, lavatory chemicals, and any substance, whether solid, liquid, or gaseous in nature, which is defined as a hazardous substance or hazardous waste under any federal, state, or local statute, regulation, rule or ordinance, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the Clean Air Act, the Clean Water Act, and/or the Hazardous Materials Transportation Act.

Irregular Operations (IROPS): Any flight operating off schedule or delayed.

Jet Blast: The high-velocity air behind an operating aircraft engine.

Landside: The central Terminal Complex that connects to all Airsides.

Marshaller: The individual who is responsible for safety of aircraft movement during aircraft arrival or departure from gate areas and for directing the aircraft with respect to safety conditions and guidance.

Movement Area: The designated area of the AOA that is under the control of the ATCT, i.e. runways and taxiways.

Movement Area Trained (MAT): Individuals possessing MAT qualifications and endorsements from the Authority badging office, signifying such individual's authorization to operate on the Movement Area. MAT operators must follow all established local and federal regulations, policies, and procedures.

Non-Movement Area: The area, other than that described as the Movement Area, used for the loading, unloading, parking, and movement of aircraft on an airside of the Airport, including apron areas, and on-airport fuel farms.

Non-Movement Area Trained (NMAT): Individuals possessing NMAT qualifications and endorsements from the Authority badging office, signifying such individual's authorization to operate within the Non-Movement Area. NMAT operators must follow all established local and federal regulations, policies, and procedures.
Operator: The individual(s) working on behalf of an Airline and/or Ground Handler.

Passenger Terminal: The enclosed space where passengers check-in, claim baggage, and board flights.

Personal Protective Equipment (PPE): Equipment worn to minimize exposure to Hazards that cause serious workplace injuries and illnesses. Examples of PPE include safety vests, hearing protection, helmets (hard hats), welding masks, gloves, goggles, face masks, and other items for the protection of personnel.

Power Back: A procedure whereby an aircraft is backed up under its own power using reverse engine thrust.
Push Back: A procedure where an aircraft is moved, normally by a tug.

Reckless Driving: Driving any vehicle in such a manner as to indicate either a willful or wanton disregard for the safety of persons or property.

Restricted Area: Any area of the Airport where access is restricted by tenants or the Authority for their operations only.

RON Parking: Includes aircraft that Remain Overnight or Remain on Gate and shall apply to any aircraft approved to occupy a gate or parking position more than 5 hours**.**

Runway Incursion: Any occurrence at the Airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft.

Safety Management System (SMS): The formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. Includes systematic procedures, practices, and policies for the management of safety risk.

Scheduled Operations: Aircraft operations conducted in accordance with a published schedule between points within the continental United States (domestic), or into or out of the continental United States (international).

Secured Area: A portion of the Airport, specified in the ASP, in which certain security measures are specified by federal regulations. This area is where passengers enplane and deplane, and baggage is sorted and loaded. This area includes the aprons where aircraft park.

Security Identification Display Area (SIDA): An area always designated for the wearing of security identification media, as defined by the Airport Security Plan.

Service Provider: Any company permitted by the Authority to provide ground and passenger handling services.

Signatory Airline: An Air Carrier that is a party to an active Space Rental Agreement or an Air Carrier that is a party to an active lease of space in the cargo cost and revenue center in the form prescribed by the Authority.

Space Rental Agreement: An agreement in the form agreed to by the Authority and the Signatory Airline and executed by the Authority and a Signatory Airline granting such Signatory Airline the right to occupy and operate within the airline premises designated in such Space Rental Agreement.

Sterile Area: A portion of the Airport defined in the ASP that provides passengers access to boarding aircraft and which access is controlled by the TSA through the screening of persons and property.

Storm Water Pollution Prevention Plan (SWPPP): A fundamental requirement of storm water permits. A SWPPP identifies all potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the Airport.

Surface Incident: An event during which authorized or unauthorized/unapproved movement occurs within the Movement Area, or an occurrence in the Movement Area associated with the operation of an aircraft that affects or could affect the safety of flight.

Tenant: Any person holding any right to use the passenger facility complex or airfield under any type of agreement with the Authority and the agents, employees, contractors, and subcontractors of such person, including, but not limited to, the airlines, permittees, and badge holders.

Terminal Complex: Shall mean the terminal building and the airside buildings connected by means of the passenger transfer system, together, as they and any other passenger handling facilities exist at the Airport prior to and after completion of any improvements or expansion.

Unit Load Device (ULD): Any container used to place and store baggage or cargo for transport on an aircraft.

Visual Docking Guidance System (VDGS): The automated parking system found on some Authority gates that may be used by trained and qualified individual(s) to program and provide Marshaller guidance to safely park an aircraft at a gate.

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 AUDIENCE

This document explains important aspects of operations, as well as outlined roles, responsibilities, and requirements on a variety of subjects for Airlines, Operators, Ground Handlers, commercial users, tenants, contractors, Airport employees, and others working on the airsides and Airfield of the Airport.

1.2 HOW TO USE THIS DOCUMENT

The GOM is a companion document to the Airport Rules and Regulations. While the Rules and Regulations govern all operations, both Landside and Airside, the GOM is focused on operations on and around the airside aprons and the AOA. The GOM brings the Airport's Rules and Regulations, Policies, Standard Procedures, and Operating Directives into one document. The GOM is a useful reference for anyone working at the Airport to ensure both their success and the success of the entire Airport community.

1.3 PRIOR TO OPERATING AT THE AIRPORT

Any persons or companies operating at the Airport will require the appropriate Authority approved licenses, leases, operating agreements, insurance, and payment security before conducting any kind of commercial operation on the Airport.

Requirements will differ depending on the nature of the activity.

Contact the Authority's Real Estate office for more information at 813-870-7861.

1.4 PROCEDURES

Any person operating within the AOA must abide by the Authority's GOM. When an individual is observed to be in violation of the Authority's GOM, Airport Operations personnel are authorized to issue a Notice of Safety Violation(s) (NSV) that includes certain penalties for non-compliance. Refer to Standard Procedure S340.05, Safety Citation Points System for more information.

2.0 ROLES AND RESPONSIBILITIES

2.1 PRIMARY ROLES CONTACT MATRIX

The following groups are available 24 hours a day, 7 Days a week	Role	Contact Information
Emergencies	**Life-Threatening Emergencies**	**Dial or text 9-1-1**
Operations Department	Contact for operational issues, requests, and queries	813-870-8770

2.2 OPERATIONS DEPARTMENT

The Operations Department consists of the following specialized focus workgroups:

(a) Airport Operations Center

The Airport Operations Center (AOC) is the Airport's communication and information hub that brings together all aspects of the Airport's daily activities. The AOC is the focal point where internal and external entities should focus their communications to ensure swift and coordinated responses.

(b) Terminal Operations

Terminal Operations maintains overall operational management of the Main Terminal, Airsides, Rental Car Center (RCC), and parkways. This workgroup has decision making authority in relation to operational issues of safety, security, and compliance.

(c) Security Operations

Security Operations focus is the security of the Airport and ensuring compliance with TSA regulations. This workgroup has decision making authority in relation to operational issues of safety, security, and compliance.

(d) Airfield Operations

Airfield Operations maintains overall operational management of the AOA and ensures compliance with FAA regulations as they relate to the airfield. This workgroup has decision making authority in relation to operational issues of safety, security, and compliance.

3.0 OPERATING POLICIES AND REQUIREMENTS

3.1 SECURITY

All employees working at the Airport must be properly badged through the Authority Badging Office, in accordance with current TSA requirements, Authority Badging Office Policies, Standard Procedures, and other guidance.

Employees must ensure Authority-issued identification (ID) media are visible, on the outermost garment, above the waist, and are not defaced or damaged in any way. Failure to comply could result in penalties from the Authority and/or the TSA, up to and including the confiscation of an employee's Authority-issued ID badge.

All Airport employees are responsible for ensuring anyone not properly wearing or having Authority-issued ID when in an area where such ID is required is challenged and/or visually monitored until Authority staff and/or Police respond. **Security is every employees' responsibility**. Any suspicious person(s) and/or activity should be reported immediately to the AOC at 813-870-8760.

3.2 NEW OR INFREQUENT AIRCRAFT TYPE CHANGE

Proposed new, regularly scheduled aircraft types that are anticipated to operate at the Airport for any Airline or aircraft operator shall be communicated to the Authority at least four (4) weeks prior to the first anticipated operational day at the Airport.

3.3 OPERATOR POLICY REQUIREMENTS

All Airlines, Operators, and Ground Handlers (including aircraft maintenance, grooming, catering, and fueling agent service providers) operating at the Airport are expected to have internal policies, standards, and procedures governing their operations at the Airport.

(a) These standards, policies, and procedures are applicable to:
   (1) All self-handling air carriers.
   (2) All third-party Ground Handlers providing services on Authority-controlled areas.
   (3) Aircraft and passenger handling service (if different from Ground Handler) including passenger handling service inside the terminal buildings as required by the air carrier
   (4) Cargo handling services, inclusive of handlers operating under a lease agreement at the Airport.

(b) Airlines/Operators/Ground Handlers at the Airport are required to:
   (1) Follow all Authority Operating Directives, Standard Procedures, and Rules and Regulations.
   (2) Operate in a safe, efficient, and cooperative manner.
   (3) Advise the Authority of any new, amended, or terminated ground handling contracts 30 days prior to any such change becoming effective.
   (4) Advise the Authority of any changes in or new acquisition of GSE to be used at the Airport 30 days prior to any such changes becoming effective; and

(5) Ensure regular attendance at all Authority safety meetings, FOD walks, and safety events.

(c) Air carriers at the Airport are required to:

(1) Ensure Ground Handlers follow all Authority Operating Directives, Standard Procedures, and Rules and Regulations, including, but not limited to, the content of this GOM.

(2) Participate in operational audits as required.

(3) Advise the Authority of any changes to their ground handling contract, including, but not limited to, changes to their selection of Ground Handler 30 days prior to such change coming into effect.

3.4 OPERATING STANDARDS AND PRACTICES

In addition to the standards found in this document, the following are operating standards specific to the Airport:

(a) Equipment must be inspected daily before first use in accordance with respective company policy, safe operating condition, safely operated, parked with brakes applied, and staged in designated assigned areas in a neat and orderly fashion.

(b) Parked and staged equipment must have a serviceable braking system engaged.

(c) Equipment must not be left on or around per use gate areas or any other area that has not been assigned to the Ground Handler and must be removed immediately after flight departure unless the Ground Handler has the next operation assigned to that gate or area. Other areas include, but are not limited to, inbound and outbound baggage areas, carousels and laterals, baggage halls, and all passenger processing areas.

(d) The practice of misusing equipment, such as, but not limited to, a tug pushing another tug or moving carts and dollies with a forklift will not be permitted. This practice causes damage to steering and braking systems and creates a serious risk to property and personnel.

(e) Equipment and supplies, such as but not limited to, galley units and supplies, cabin service supplies, pillows, blankets, tie-down straps, garbage bags, and skids, shall not be left at the gate or on the ground. These items will be considered FOD and will be removed and destroyed.

(f) Potable water hoses, conditioned air hoses, chocks, towbars, access ladders and steps, GPU, and VDGS cables must be neatly and properly stowed when not in use.

(g) Passenger loading bridges must be returned to their designated parking position, clear of the defined ground painted aircraft containment areas, when not in use.

(h) Photo eyes on baggage laterals must be kept clear at all times to avoid unnecessary stoppages which can impact up-line systems.

(i) Inbound baggage carousels must be cleared during induction as required and all unclaimed bags must be removed immediately and placed in designated secure areas for processing. Security doors (where applicable) must be closed upon induction of the last item.

(j) ULDs can be easily blown by the wind due to their light construction and large sail areas. ULDs shall be secured in approved areas or on dollies, with the corresponding locks and guides engaged.

(k) All Operators on the Movement Area must ensure that goods being transported on carts, dollies, trucks, or other means are properly secured. Extra care must be taken when transporting and storing “live” shipments to prevent animals from becoming loose.

(l) The Airfield is a high noise area, and use of personal hearing protection is highly recommended. Personnel working on the Airfield shall wear high visibility reflective vests, shirts, or safety straps (belts) in good condition, free of tears and fading, as their outermost garment while in or on a

vehicle or GSE. Personnel shall also have access to hearing and eye protection, as well as other applicable PPE such as hard hats, welding masks, and breathing respirators. All PPE must be properly maintained in good operating order. Personnel shall also have easy and quick access to replacement PPE.

(m) As per FAA Advisory Circular 150/5210-5, Painting, Marking, and Lighting of Vehicle Used on an Airport, Operator signage and logos on Operator equipment must be clearly visible, where appropriate and required, not faded, and in good, clean condition.

(n) Operators must make available appropriate wands for directing and marshalling aircraft (daytime and lighted night wands) that are in good working condition and have extras readily available to appropriate staff and personnel.

(o) Cones, barricades, and other equipment with reflective material must be in good working order and not be discolored or faded.

Ensure that safety equipment remains effective and replace when needed.

(p) Unsecured equipment and material can be blown off station due to a shallow slope, light winds, or jet/prop blast. These objects can easily cause damage or injury. All ground service equipment and other items on the apron shall be chocked or otherwise secured, especially if wheeled. When storms are forecasted and/or present, secure all equipment and supplies that may become potential FOD hazards.

Chocks are required for all equipment with wheels.

(q) Broken GSE must not impact Airport operations, must be tagged (include date and discrepancy), and must be removed from the Airfield if not repaired within 48 hours of the initial date on the tag. If not repaired within 48 hours, the broken GSE must be relocated to the Northeast GSE area. If not repaired within 30 days of its arrival at the Northeast GSE area, the broken GSE must be removed from the Airport.

3.5 CONTRACTUAL REQUIREMENTS

Any person or business conducting any commercial, non-commercial, or General Aviation ground handling operations at the Airport must be authorized to do so by the Authority prior to commencing such operations.

Airlines/Operators/Ground Handlers shall:

(a) Remain in compliance with the requirements set forth in the applicable license, permit, and/or lease agreement

(b) Operate in a safe, efficient, and cooperative manner

(c) Advise the Authority of any new, amended, or terminated ground service contracts 30 days prior to any such change becoming effective

(d) Advise the Authority of any changes in or new acquisition of equipment to be used at the Airport 30 days prior to any such changes becoming effective

(e) Be an active and participating member of all safety and operational committees, ensuring regular attendance at all Authority safety meetings and events.

Air Carriers shall:

(a) Ensure respective Ground Handlers and service suppliers follow all Authority Rules and Regulations, including any Operating Directives provided by the Authority, as well as this GOM;

(b) Actively participate in operational audits as required; and
(c) Advise the Authority of any changes to their ground handling contract, including, but not limited to, changes to their selection of Ground Handler prior to such change coming into effect.

3.6 ONSITE MANAGEMENT PRESENCE

A 24/7 emergency and non-emergency management contact shall be provided to the Authority, along with current names and titles of the management teams responsible for the Airline/Operator/Ground Handler.

Operational management shall be on-site at the Airport any time the Operator's service(s) are being performed (e.g. aircraft handling, ground service, etc.). The operational management of the Airline/Operator/Ground Handler shall have the equivalent training and qualifications as line workers, including, but not limited to, an appropriate SIDA badge that validates proper training to access and operate on the AOA.

3.7 STAFFING

Despite staffing levels that may fluctuate according to an Airline's/Operator's/Ground Handler's contractual obligations, all Operators and Ground Handlers shall ensure that sufficient staff is available to prevent any adverse effect on operations, business, or activities of other tenants, air carriers, ground service providers, Airport systems and facilities. This includes, but is not limited to, terminal check-in areas and counters, outbound and inbound baggage systems, Passenger Boarding Bridges (PBB), gates, and Apron areas. Operators must also have documented contingency plans for IROPs and other hazardous events.

Staffing irregularities shall be reported to the Authority well in advance to support IROPs and other contingency planning for the Airport.

3.8 TRAINING

All Airlines/Operators/Ground Handlers shall have an in-depth training program with records confirming that all personnel are properly trained on all activities and equipment required to perform their duties. This training should include but is not limited to:
(a) Surface markings and signs;
(b) Proper storage of supplies, equipment, and hazardous material (Nothing shall be stored under stairwells;)
(c) Responding to fuel spills and emergencies;
(d) Reporting hazards, incidents, and accidents; and
(e) FOD procedures.

3.9 EQUIPMENT AND RESOURCES

Airlines/Operators/Ground Handlers shall have adequate and proper GSE required to perform duties according to their contracted activity.

GSE shall be maintained in a good, clean, and safe working condition, in accordance with the manufacturer-approved maintenance program, and must not be used to perform any tasks other than the specific tasks for which such equipment was designed. Performing maintenance of GSE is not permitted on the Apron and must be conducted in a suitable area designated and equipped for such activity, as approved by Operations and/or Real Estate.

The North Cargo area is designated for serviceable overflow GSE equipment. Unserviceable, unsafe, and/or defective equipment must be tagged as such and promptly moved to the Northeast GSE area. If the equipment is not able to be returned to service within 30 days, it must be removed from Airport property. Any unserviceable, damaged, dilapidated GSE not removed from the Airport within 30 days will be removed by the Authority at the expense of the owner thereof. Applicable fees and charges will be applied and assessed to the Airline, Operator, or Ground Handler of record.

Northeast GSE Area indicated in red

GSE not currently in use shall be parked in Authority-designated areas only. The GSE may not be parked at a gate where another Airline/Operator/Ground Handler is scheduled to have an active flight or in front of safety equipment, such as an emergency fuel shutoff area (EFSA) or eyewash station. GSE without an engine may be stored under the Taxiway A and B bridges. Space for such GSE is first come, first serve.

3.10 PROHIBITED ITEMS ON THE APRONS

Equipment such as basketball hoops, weightlifting equipment, chin up bars, hammocks and office furniture meant for inside use is not authorized on the aprons.

Keep prohibited items away from the aprons.

Airlines, Operators, and Ground Handlers shall provide on-site equipment counts upon request. No shipping containers (CONEX boxes) are permitted within the AOA except if approved for use by the Real Estate and/or Operations departments.

3.11 GROUND SERVICE RAPID RESPONSE PROTOCOL

Ground handling providers must have a Rapid Response Protocol (and supporting resources) to immediately (within a maximum of 10 minutes) address and rectify situations where equipment must be moved or secured to eliminate a safety concern or clear a congested area to allow for unimpeded operations. Rapid Response Protocols shall also include responses to spills or other cleanup activities and for removal of equipment that has become disabled or is preventing access or usage to other users of Airport and Authority facilities.

3.12 MAINTENANCE AND INSPECTION PROGRAM

Equipment shall be maintained in a good, clean, and safe working condition by means of a manufacturer-approved maintenance program. Equipment maintenance is not permitted on the Apron areas and must be conducted in a suitable area designated and equipped for such purposes. Any unsafe or defective equipment, including, but not limited to, carts, dollies and ULDs, which are not removed from the Authority-Controlled (e.g., Per Use) Areas by the service provider will be removed by the Authority. Associated costs of removal and storage may be incurred by the service provider of the equipment being removed.

3.13 AIRCRAFT REMOVAL

All Airlines/Operators/Ground Handlers at the Airport are required to have aircraft removal equipment and services available and in place to facilitate the clearing of disabled aircraft from runways and taxiways once released by Fire & Emergency Services (ARFF or the Federal Aviation Administration and/or National Transportation Safety Board). Removal may be arranged by the Authority for aircraft disabled in critical operational areas.

3.14 AIRCRAFT AND OTHER MAINTENANCE

All Airlines/Operators/Ground Handlers shall have agreements in place with licensed maintenance staff for aircraft and GSE. Heavy maintenance is not permitted on Airport hardstands and gates without prior permission from Operations. Airlines/Operators/Ground Handlers conducting maintenance runs in any location are fully and solely responsible and liable for all injury to persons or damage to property resulting from their activity.

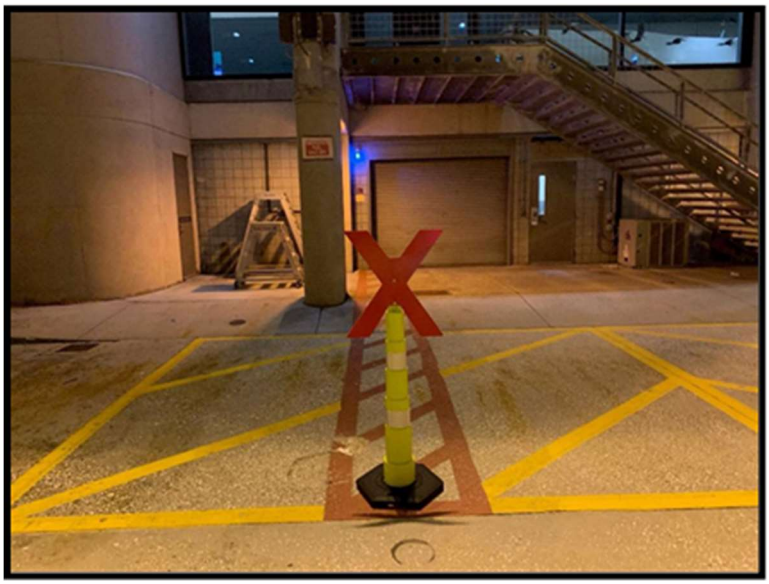
All engine runs shall be conducted in the Airport's Ground Run-Up Enclosure (GRE). The GRE is located on the East side of the Airfield and adjacent to the United MRO Hangar. The GRE may be reserved by contacting the AOC at (813) 870-8770.

The Maintenance Run-up Enclosure is also commonly referred to as The Hush-House.

3.15 EQUIPMENT PARKING

Equipment shall be safely parked with brakes applied and staged in designated assigned areas in a neat and orderly fashion. No equipment will block or impede emergency exits (Including emergency access areas near stairwells), nor will it impede access to emergency fuel shutoff stations

or emergency eyewash stations at any of the airside facilities. Equipment must not be left on or around gate areas or any other area that has not been assigned to a service provider. The equipment must also be removed immediately after flight departure unless the provider has the next operation assigned to that gate, inbound and outbound baggage areas, carousels and laterals, baggage halls, and/or hardstand parking areas.



Green cones topped with reflective red X's help identify EFSAs.

3.16 WING WALKERS / MARSHALLERS

The Airline/Operator/Ground Handler is responsible for the safe movement of aircraft entering or exiting the gate, cargo, and/or Apron areas. Such movement, whether under Power, tow, or Push-Back shall be accomplished safely and efficiently, with due care for all users of the Apron.
The Airline/Operator/Ground Handler shall ensure operational safety using wing walkers. Care should be taken during inclement weather and low visibility conditions. Refer to the Authority's Surface Movement Guidance and Control (SMGCS) Plan for additional information. The SMGCS Plan is located on the Authority's website at the following link: https://www.tampaairport.com/airport-operations.

3.17 DEPARTING AIRCRAFT

All Airline/Operator/Ground Handler personnel shall return all aircraft servicing equipment to its proper location. In the case of Authority-controlled per-use gates and hardstand parking positions, equipment must be removed to allow for the gates or parking location to be utilized by another Airline/Operator/Ground Handler. All gates and aircraft parking locations must be free from debris or other waste, as well as subjected to a post- departure FOD inspection.

3.18 ARRIVING AIRCRAFT

Airline/Operator/Ground Handling staff shall prepare for the arrival of the aircraft according to company procedures and this GOM, including, but not limited to:
(a) Inspecting the gate for FOD prior to arrival;

(b) Ensuring the PBB is parked properly within its designated space; and
(c) Ensuring ground equipment is properly pre-positioned prior to aircraft arrival and clear of taxiing aircraft.

3.19 UNATTENDED EQUIPMENT

No running equipment shall be unattended at any time.

3.20 DUE CARE OF EQUIPMENT

The practice of misusing equipment, such as pushing carts and dollies with a forklift or other vehicle, is not permitted. This practice causes damage to steering and braking systems and creates a serious risk to property and personnel. In addition, equipment must not be dragged on any prepared surfaces, on grass, or on soil.

3.21 GATE SYSTEMS

Potable water hoses, pre-conditioned air hoses, access ladders and steps, and GPU cords must be neatly and properly stowed when not in use. GPU cables shall be stored such that the cable and connection point are free from damage and exposure to damage.
PBBs shall be returned to their designated parked position outside of the safety envelope markings painted on the ground, with PBB doors closed and secured when not in use.

3.22 UNIT LOAD DEVICE (ULD)

Unsecured ULDs are lightweight and can become missile hazards when moved by jet blast or winds. Also, unsecured ULDs being towed can fall onto service roads, aprons, and movement areas, interrupting operations. All ULDs shall be always locked onto dollies at all times. Unsecured ULDs are not authorized anywhere on the AOA. The practice of placing ULDs on the ground, boards, pallets or tied to another object or ULD by a cable or rope is prohibited.

3.23 FOREIGN OBJECT DEBRIS (FOD) BINS AND BAGS

Ground service providers are responsible for ensuring that FOD bins and bags are provided for use by their employees. These FOD bins and bags can be mounted in rest areas, designated smoking areas, or in vehicles. Such FOD bins and bags must be secured to prevent FOD from escaping. All FOD receptacles must be emptied on a regular basis. All objects such as unusable or single-use wrappers, cans, rags, gloves, tags, zip-ties, papers, bags, sheets of plastic, and food must be secured in a FOD bin or bag to prevent the item from becoming FOD. Not all FOD is trash. Calculators, pens, knee pads, documents, luggage, mail, tools and other valuable FOD are found throughout the Airport. These items of value need to be secured when being transported.

Bags are helpful for limiting FOD spilling onto the Airfield.

3.24 SECURED LOADS

All Airline/Operators/Ground Handlers must ensure that goods being transported on carts, dollies, trucks, or other means are properly secured prior to operating the GSE. Extra care must be taken when transporting “live” shipments. The Authority may levy additional fees for the capture of animals deemed to be improperly crated or handled.

3.25 AUTHORIZATION OF USE

Airlines/Operators/Ground Handlers using aircraft support systems made available by the Authority shall be authorized, trained to do so by their own company, and deemed competent to safely use such systems.

3.26 SYSTEM DOCUMENTATION AND TRAINING PROGRAMS

Documentation is available from the Authority on all aircraft service systems in use at the Airport. In most cases, a train-the-trainer model is employed so that supervisory or other training personnel are trained by the Authority to operate these systems, in turn passing this knowledge along as part of larger Airline/Operator/Ground Handler training programs.

When changes are made to aircraft service systems, documentation and training material will be updated and made available to Airlines/Operators/Ground Handlers.

3.27 FAULT REPORTING

Faults or operating irregularities with any system shall be reported immediately to the AOC at (813) 870-8770. Faulty or problematic systems and equipment shall not be used.

3.28 PASSENGER BOARDING BRIDGES

The Airport utilizes PBBs to provide passengers with a dry, climate-controlled passage from the terminal boarding lounges to aircraft. In rare circumstances, some operations require passengers to board and deplane directly from the Apron under the close supervision of Airline staff. The Airport Operations Department must be notified if any such operations are planned to take place.

A comprehensive set of operating procedures and training materials are available from the Authority. A simplified overview of operating procedures, includes, but is not limited to, the following:

(a) Prior to aircraft arrival at the gate, the Operator shall ensure the PBB is established in its correct parking position, with the canopy and self-leveler retracted, and cab oriented 90 degrees to the lead-in line and clearly outside all safety containment lines.
(b) Air, power, and water attachments shall be retracted out of the way of the arriving aircraft.
(c) The gate shall be clear of all equipment, FOD, or other material that may interfere with the aircraft's arrival; and
(d) When the aircraft has been stopped, chocked, engines shut down, and ground personnel clear, the bridge may be extended to the door according to established procedures.

3.29 FIXED GROUND POWER UNITS

There are aircraft ground power systems at all gates. There is no permanent aircraft ground power available at any hardstand position.

The use of ground power reduces the noise, air pollution, and additional cost of running GPUs, aircraft engines, or onboard auxiliary power units.

To provide power of the correct voltage and phase for onboard use, the aircraft ground power systems transfer electricity from commercial alternating current power and convert it to 400 Hz high-amperage alternating current or 28-volt direct current, depending on the unit.

The aircraft ground power systems incorporate built-in safety devices to help ensure that aircraft and personnel are protected from short circuits and electrical surges.

These units also automatically check all critical components prior to supplying power, monitor all critical operating parameters, indicate potential problems if operating parameters approach critical levels, and cut off power delivery if operating parameters exceed critical factory-set levels.

Safety and Operating Precautions:

(a) No person shall operate GPU without formal training. Connections and powerheads are easily damaged. They must be stowed properly when not in use.
(b) Never disconnect GPU from aircraft when in use.
(c) Only qualified maintenance personnel shall open enclosures or make repairs to the GPU.
(d) Equipment must not be operated near combustible materials.

3.30 AIRCRAFT CABIN PRE-CONDITIONED AIR (PCA) SUPPLY SYSTEM

The PCA Supply System is designed to provide heating, cooling, and ventilation, depending on the cabin temperature of gated aircraft. Sensors located in the PCA unit and the aircraft provide temperature information which allows the PCA unit to maintain a comfortable environment for passengers and crew while at the gate.

Safety and Operating Precautions:

(a) Hoses must be stowed neatly without kinks in the baskets provided.
(b) Improperly stowed hoses can be damaged and are at risk of being ingested by aircraft engines.
(c) Access panels should not be opened as high voltage conditions are present.

3.31 AIRCRAFT POTABLE WATER SYSTEM

There are potable water cabinets that supply drinking water to aircraft at each airside. Each airside varies in the amount and location of potable water cabinets. The cabinets are equipped with a potable water hose and aircraft coupling, a pressure regulator, a solenoid valve for automatic flushing of the hose, isolation valves, and most have a motorized hose reel. Potable water aboard aircraft is regulated by the EPA, FDA, and the FAA.

Safety and Operating Precautions:

(a) To prevent cross-contamination, personnel engaged in the removal/disposal of waste must not also perform potable water service or handle potable water equipment.
(b) The hose nozzle must not meet the ground as this may contaminate and damage the nozzle assembly.
(c) A vehicle must not be used to transport the hose between the cabinet and the aircraft.
(d) Cabinets must be closed when aircraft filling is complete, with the hose neatly rolled and stored.
(e) Leaks or other discrepancies must be reported to Maintenance Work Control or the AOC.

3.32 FUELING OPERATIONS AND SAFETY SYSTEMS

Aircraft fueling is undertaken by Agencies contracted directly with the Operators. Authority Operating Directive D350.00.01, Specific Fire Safety Fuel Standards and Inspection delineates specific fire safety standards for aviation fueling activities at the Airport in compliance with NFPA 407.

Fueling Operations

(a) The Airline/Operator/Ground Handler must comply with Standard Procedure S343.04, Smoking and Open Flames on the Apron and Movement Areas of Tampa International Airport.
(b) No aircraft may be fueled or defueled while inside any building or structure.
(c) Any person, including owner or operator of an aircraft, causing overflowing or spilling of fuel, oil, grease, or other contaminants anywhere on the Airport will be responsible for ensuring the immediate cleanup of such spillage.
(d) In the event of failure or refusal to comply with such cleanup requirements, the spillage may be cleaned up by the Authority at the responsible party's expense.

(e) Any fuel spill must be reported immediately to the AOC via telephone at 813-870- 8770. Details of all spills must be reported to the Authority, in compliance with the procedures contained in the AEP.
(f) Aircraft, fuel delivery devices, and other vehicles will not be moved or operated in the vicinity of the spill until the spillage is removed. The person causing the spill will promptly post a fireguard.
(g) If a fire occurs in or near a fuel delivery device while servicing an aircraft, the AOC must be notified by dialing 9-1-1. Fueling must be discontinued immediately and all emergency valves and dome covers must be shut down at once.
(h) No fuel vehicle designed for or employed in the transportation of fuel may be operated on a taxiway or runway at any time without prior permission from the Authority.
(i) Aircraft fuel servicing hydrant transfer vehicles and fuel tenders are authorized to be utilized for fueling operations on the airside Terminal Aprons. However, no fuel tender will operate on any of the airside Terminal Aprons without first entering into a written agreement with the Authority for such operations.
(j) No person may start the engine of an aircraft on the Airport if there is any gasoline or other volatile fluid on the ground within the vicinity of the aircraft.
(k) No person may operate a radio transmitter or receiver or switch electrical appliances on or off in an aircraft while it is being fueled or defueled.
(l) Aircraft fueling vehicles in the vicinity of the aircraft shall be marked with the name of the operator or the responsible organization, in accordance with FAA and National Fire Protection Association (NFPA) standards. The marking shall be approved by the Vice President of Operations or designee, with legible signage on both sides of the exterior of the vehicle.
(m) Signs shall have letters 75 mm (3 in.) high. Signage shall be of a color that contrasts sharply with the sign background for visibility. The words, “FLAMMABLE”, “NO SMOKING”, the UN four-digit material identifier (e.g., “1203” or “1863”), and name of the product carried (“JET A”, “JET B”, GASOLINE, or AVGAS), shall appear on each side of the vehicle.
(n) Each aircraft fuel servicing tanker and fuel servicing hydrant unit shall have one listed fire extinguisher, having a rating of at least 40 BC and a minimum capacity of 9.0 kg (20 lb.) of dry chemical agent, mounted on each side of the vehicle.
(o) Each aircraft fuel servicing tanker shall have, at a minimum, two listed fire extinguishers, one on each side of the tanker.
(p) Each aircraft fuel service hydrant vehicle shall have, at a minimum, one listed fire extinguisher.
(q) Refuelers must maintain continuous situational awareness and not become unduly distracted while fueling operations are in progress.
(r) Vehicles carrying fuel must comply with posted signs regarding the amount of fuel that can be transported through a tunnel.
(s) All CFR Part 139.321 fuel servicing equipment shall have a complete and fully intact protective sheath that shall cover the inner bonding wire to ensure the cable does not meet any environmental conditions.
(t) All fuel equipment located on the Apron shall be safely parked with brakes applied, chocks properly placed to prevent movement, and staged in designated assigned areas in a neat and orderly fashion.
(u) The “Deadman” shall not be circumvented, and positive manual control must be maintained while actively fueling.

Fuel Discrepancy Management

The Operations Department reserves the right to enforce the rules and regulations in this GOM through a variety of methods including, but not limited to, verbal warnings, written safety citations, retraining and/or disabling the responsible individual's Airport ID (SIDA) badge, depending on the frequency and severity of unsafe practices that may impact the well-being of tenants or property.

Fire and Spill Protection Measures

The Apron Fuel Shutdown System is an Airport-wide system that shuts off the supply of fuel when manually activated in case of a spill. Emergency shutoff stations are installed at each gate and are identified by blue lights and emergency fuel shutoff signage.

Emergency Fuel Shutoff Stations must remain clear of any obstructions and must remain easily accessible by persons in the event of an emergency. This requirement is accomplished by keeping equipment clear of marked red access areas/paths that lead to and from the Emergency Fuel Shutoff Station.

After an Emergency Fuel Shutoff Station is activated, the aircraft fuel supply to the affected airside is shut down. The fueling agency can further isolate the affected area using manual shutoff valves and restore fuel supply to the rest of the Airport.

Fuel Spill Response Plan

All fuel, chemical, lavatory, or other toxic spills must be immediately reported to the AOC by calling (813) 870-8770. Tenants that own and maintain Fuel Spill Response Kits shall keep them strategically placed, safely secured, and properly maintained.

It is highly encouraged to train crews on the best way to respond to fuel and hazardous material spills. Topics to cover include:

(a) How and when to contact the AOC during a spill;
(b) The pros and cons of using absorbent material (kitty litter), absorbent pads and booms, and trash cans;
(c) The importance of preventing spilled material from entering storm drains or soil; and

(d) The dangers of using unauthorized metal tools such as shovels around fuel spills.

Granule absorbent material can be difficult to remove from a scene.

Absorbent pads and booms are easy to remove from the scene.

3.33 FLAMMABLE CABINETS AND CONTAINERS

The purpose of flammable cabinets and containers is to store highly flammable liquids and gels and keep flames from spreading if they were to catch fire. Flammable cabinets and containers shall not be stored under stairways, near doors, electrical boxes, designated smoking areas or other sources of open flame. The doors shall be kept closed and combustible material such as clothing, rags,

cardboard, and wood shall not be kept on or near the cabinets or containers. Round containers of hazard materials such as propane tanks and compressed gas shall be secured to a fixed objector stored in a cage or other container to keep them from rolling or falling over.

3.34 EMERGENCY SHOWERS AND EYEWASH STATIONS

Eyewash stations are located throughout each Airside Apron and need to be easily accessible to personnel to rinse hazard material from their face or eyes. Some stations have full body showers that can be used. These stations need to be easily accessible. Each station is marked with a red no parking or storing area. Vehicles or equipment parked or stored near the eyewash stations need to be promptly moved. Clothing and tools should not be hung from the pipes and cans, and soap and other material shall not be kept in the basin. The covers of the eyewash stations' spigots need to be in place and in good order. Leaking stations need to be reported to the AOC so as not to become a wildlife attractant.

3.35 LIGHTNING WARNING SYSTEM (LWS)

The Airport is equipped with a LWS that provides advisories to all personnel when lightning strikes occur near the airfield.
When the system goes into alert mode, strobes and horns located on the rooflines of various buildings will flash and sound a warning. In addition to this visual and audible warning, the AOC distributes a notification to Tenants with outdoor activities noting the presence of convective weather and to be alert to the activation of the strobe system. When the strobes activate, all Tenants, Authority personnel, and other users operating on the Airfield must follow their respective company's procedures for lightning activity. See Appendix C for additional information regarding the LWS.

3.36 PROHIBITED ACTIVITIES

Aircraft Power-Back operations are not permitted at the Airport, as such operations would be a significant safety hazard to personnel and property.

Turbojet power-out (reversing backward on engine power) is not permitted at the Airport.
Minor aircraft repairs maybe accomplished at airside gates. However, no work which poses a risk of fuel, oil, or hydraulic spills may be performed without prior approval from the Airport Operations Department.

Attention: All power run-ups must adhere to Authority Operating Directive D344.00.01, Engine Run-up Noise Management, which specifies ground run-up facility use, location information and other provisions.

3.37 AUDIT AND PENALTIES FOR NON-COMPLIANCE

All Airlines/Operators/Ground Handlers at the Airport are subject to audit upon reasonable notice, which audit may include observance of operational procedures, interview of various levels of management and staff to ensure understanding of operational procedures, and inspection of equipment and systems.
Non-compliance with any aspect of operating requirements outlined in this document may result in the requirement that the Airline/Operator/Ground Handler develop, implement, and report a Corrective Action Plan.
Periodic observations may be conducted on all Airlines/Operators/Ground Handlers. Participation may include but is not limited to, Airport Operations and Public Safety. Observations will focus on safety and will include, but are not limited to, the following:
(a) Compliance with applicable driving policies and procedures (Refer to Section 9.2);
(b) Compliance with all security requirements.
(c) Equipment appearance, serviceability, usage, and parking.
(d) Equipment maintenance and maintenance records.
(e) Housekeeping
(f) Staffing levels, including line workers and management.
(g) Environmental safety and compliance.
(h) Plans and programs including Rapid Response Protocol, Maintenance, and Spill Response; and
(i) Staffing and contingencies for IROPs and work disruptions.

Audit findings that corrective action is required will be classified into two categories:
(a) Minor

1) When a single observed non-conformance has been identified with respect to a standard.
2) When there are relatively small amounts of reoccurring minor non- conformances against a particular standard; and
3) Where an obvious standard practice was not identified and evaluated which is not likely to create an immediate hazard.

(b) Major

1) When a non-conformance is directly related to a failure to identify, evaluate, and/or meet statutory requirements, and that action has not been taken in cases of non-compliance.
2) When a non-conformance is likely to result in an immediate hazard.
3) When there is a misrepresentation in the plan of operation.
4) When there are significant amounts of reoccurring minor non-conformances against a particular standard practice.
5) When a minor non-conformance is ignored or unsatisfactorily corrected.

Failure to rectify findings given due notice will be considered a violation. The Airline/Operator/ Ground Handler will be formally notified where corrective action must be taken within a specified time before further action is taken.

4.0 GATE ARRIVALS

4.1 OPERATOR AND AUTHORITY RESPONSIBILITIES

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:

1) Prepare the gate for the arrival of aircraft to ensure the aircraft can taxi to the gate safely and expeditiously.
2) Ensure that the gate is clear of all obstructions, hazards, surface contamination, FOD, and other safety concerns.
3) Be in place prior to aircraft arrival and ensure the PBB is in a safe position and that the equipment is staged.

   Note: For departures, the operator of the PBB must ensure the entire area behind and around the jet bridge is clear of persons and equipment to ensure that it is safe to move the PBB for aircraft departure.
4) Immediately report any damaged or unserviceable PBB and associated equipment to the Authority; and
5) Set and enforce driving policies and procedures (Refer to Section 9.2), giving aircraft priority and the right-of-way.

   Ensure employees do not walk across the service roads or apron which are for vehicles only. Pedestrians are authorized to use or cross an apron service road or work within a taxilane or apron if actively involved in an aircraft pushback or engaged in an activity supervised by Airport Operations such as a FOD walk or a response to a cleanup.

Blue areas depict the apron in which pedestrians are not allowed to transverse unless actively involved in an aircraft pushback or engaged in an activity supervised by Airport Operations such as a FOD walk or a response to a cleanup.

(b) The Authority shall:

1) Maintain the gate such that it is reasonably clear of contamination.
2) Maintain the PBB, ensuring that it is reasonably serviceable.
3) Provide a minimum of a fifteen (15) minute gap between flights.
4) Maintain functional gate equipment.
5) Maintain gate lead-in-lines and stop bar locations.

5.0 PER USE GATES

5.1 OPERATOR AND AUTHORITY RESPONSIBILITIES

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:

(1) Notify the Airport Operations Department of any need or request of hardstand and/or per-use gate utilization as early as possible. Note: All hardstand and per-use gates are assigned on a first come, first-serve basis and will be vetted by the Airport Operations Department.

(2) Not occupy or cause to be occupied any gate or hardstand position without notification and approval from the Airport Operations Department.

(3) Notify the Airport Operations Department of any delays impacting the release of a per-use or hardstand parking location beyond that originally approved by the AOM.

(b) The Authority shall:

(1) Provide per-use and hardstand aircraft parking on a first come, first-serve basis.

(2) Make available reasonably adequate lighting to perform aircraft and passenger operations.

5.2 GENERAL

Airlines/Operators/Ground Handlers keeping the Operations Department updated with any pertinent information, such as aircraft type changes, flight delay arrival times, flight delay departure times, flight cancellations, flight delays due to adverse weather, and flight diversions, is imperative. That information allows the Operations Department to plan and accommodate all customers while minimizing impact to the operation, such as gate holds or hardstand operations.

To maintain optimum gate capacity, aircraft with excessive ground time may be directed to be towed to a hardstand by the Operations Department so as not to occupy a gate that could otherwise be utilized by another Operator.

If an Airline/Operator/Ground Handler is off schedule, the Operations Department will accommodate the air carrier on a suitable gate without impacting other air carriers. A hardstand operation may be planned as required.

When assessing a gate change request, the AOM (Terminal) will determine the potential impacts to other air carriers prior to any accommodations.

Operators shall not occupy or cause to be occupied a Per Use Gate for RON aircraft when an Operator leased gate is open and available to accept an aircraft. This will ensure Per Use Gates remain open and available if possible to other Operators. Operators should take all possible steps to place arrivals before 10:00 p.m. local on Operator leased gates before occupying a Per Use Gate. Approval must be received by the TOM before occupying a Per Use Gate.

6.0 AIRCRAFT AND GROUND SERVICE EQUIPMENT TOWING

6.1 ROLES AND RESPONSIBILITIES

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:
  (1) Coordinate with the Operations Department for any planned aircraft towing between hardstand or gate positions that does not have a properly MAT qualified individual in the cockpit of the aircraft being towed.
  (2) Not permit any aircraft to be towed where verbal communication between the tug driver and personnel in the aircraft cannot be always maintained. Any instance where verbal communication cannot be maintained requires an escort by Airport Operations personnel, which may be arranged by contacting the Airport Operations Department.
  (3) Request an escort from the Operations Department if there is any concern or question about towing or repositioning any aircraft or equipment on the airfield.
  (4) All aircraft that are being taxied or towed for the purpose of repositing during the hours of dusk till dawn must have, at a minimum, their aircraft navigation lights and aircraft strobe lights in operation. Aircraft that cannot operate the lights due to mechanical difficulties must either relocate during hours of daylight or coordinate with airfield operations for prior permission.
  (5) Ensure all GSE (e.g., Vehicle, tow bar, etc.) being used is compliant with the owner's manual in regard to gross weight, speed, and type of equipment being towed.
  (6) The maximum number of baggage carts allowed to be towed is four (4), regardless of the maximum weight allowed by the towing vehicle. No more than four ULDs can be towed at a time.
  (7) No vehicles are permitted to tow GSE (example: PCA units, GPU units, bag carts, dollies, etc.) that have a manufacturer towing limit less than 3,500 lbs.
  (8) Any vehicle used to tow GSE (example: PCA units, GPU units, bag carts, dollies, etc.) must have a clear marking or label within the driver compartment that identifies the minimum and maximum towing limit of the vehicle. Any vehicle that does not have such markings must be removed from service until such time as the marking or label is present in the vehicle.
  (9) If a vehicle is not permitted to tow aircraft GSE due to the inability of the vehicle to meet the minimum towing limit, a marking or label must be in the driver compartment that clearly states the vehicle is not authorized to tow GSE or be used for such towing functions.
(b) The Authority shall:
  (1) Provide an escort or "Follow-Me" service to any Airline/Operator/Ground Handler as expeditiously as possible upon request and upon reasonable notice.

7.0 BAGGAGE DELIVERY

7.1 ROLES AND RESPONSIBILITIES

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:
- (1) Place bags onto inbound baggage belts with wheels up, properly spaced, with no hanging straps or loose appendages.
- (2) Promptly remove all equipment/vehicles from inbound baggage belts when the offloading of baggage is complete.
  Note: No vehicles may remain in the inbound baggage area while not in use nor serving an operational purpose.
- (3) Not permit any gas-powered vehicle to remain running during offload of baggage at domestic baggage claim area(s).
- (4) Provide appropriate resource levels (e.g., staffing and equipment);
- (5) Use only carousels assigned by the Authority.
  Note: Requests to utilize another carousel must be coordinated and approved by the Airport Operations Department in advance.
- (6) If an alternate carousel is utilized, the Airline/Operator/Ground Handler shall ensure the correct carousel is updated to display properly on the Baggage Information Display System and make proper announcements in the baggage claim area, where applicable.
- (7) Ensure proper use of Authority facilities and equipment by trained personnel; and
- (8) Contact the Operations Department when impediments to baggage delivery or inbound baggage belt issues exist, such as blocked routes, unserviceable belts, or issues with a gate.

(b) The Authority shall:
- (1) Provide sufficient baggage carousel capacity to meet scheduled demand.
- (2) Provide vehicle routes to the inbound baggage area that are clear and do not delay the transport of bags.
- (3) Manage roadways so that equipment/vehicles do not impact inbound baggage in offloading areas.
- (4) Allocate inbound carousels in advance of flight arrivals; and
- (5) Proactively manage carousel assignment through consideration of actual baggage demand, passenger flow, and customer experience.

7.2 INTERNATIONAL BAGGAGE DELIVERY

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:
- (1) Ensure any personnel handling inbound baggage off a non-precleared international arrival has the necessary FIS endorsement to handle international baggage.

(2) Place bags onto the inbound baggage area in accordance with baggage hygiene standards (properly spaced, wheels up, etc.).

Note: Promptly remove all equipment/vehicles from the inbound baggage area when offloading of baggage is complete.

(3) Not permit any gas-powered vehicle to remain running during offload of baggage at the international FIS baggage claim area.
(4) Provide appropriate resource levels (e.g., staffing and equipment);
(5) Use only carousels assigned by the Authority.
(6) Ensure proper use of Authority facilities and equipment by trained personnel.
(7) Contact the Authority when issues impeding baggage delivery occur (e.g., routes blocked, belt unserviceable, gate contaminated) by contacting the Operations Department.
(8) Ensure staff are present in the FIS baggage claim area to assist in clearing baggage off the belt to minimize jams and increase spacing for passengers to retrieve baggage off the carousel.
(9) Follow all traffic pattern surface markings.

(b) <u>The Authority shall:</u>

(1) Maintain the aircraft gates in a condition such that they are sufficiently free of contamination to allow for safe offloading of bags from aircraft.
(2) Provide vehicle routes to the inbound baggage area that are clear and do not delay the transport of bags.
(3) Manage roadways in a manner such that equipment/vehicles do not impact the inbound baggage area.
(4) Allocate inbound carousels at least fifteen (15) minutes in advance of flight arrivals; and
(5) Proactively manage carousel assignment through consideration of actual baggage demand, passenger flow, and customer experience.

8.0 FOD PREVENTION

Airline/Operator/Ground Handler and Authority responsibilities include the following:

(a) The Airline/Operator/Ground Handler shall:

(1) Ensure secure waste receptacles (bins and bags) are made available to all employees in order to securely discard FOD.

(2) Notify the Operations Department of any animals, alive or dead, such as rats, small birds, coyotes, and predator birds, on the apron areas.
Note: The Operations Department will coordinate the disposal of all dead animals, and track or capture live animals.

(3) Regularly empty waste receptacles.

Note: Waste receptacles must be promptly emptied when full.

(4) Ensure all aircraft parking areas are inspected prior to each arrival.

(5) Participate in Airside FOD walks led by the Authority; and

(6) Report to the Operations Department any aircraft damage that is determined to have resulted from FOD at the Airport.

(b) The Authority shall:

(1) Provide periodic recognition of Airline/Operator/Ground Handler staff who are observed removing FOD in accordance with the FOD recognition program.

(2) Lead regular FOD walks of the Aprons and Safety Areas.

8.1 IMPORTANCE OF FOD PREVENTION

The presence of FOD poses a significant threat to the safety of aircraft operations. FOD has the potential to damage aircraft during critical phases of flight, which can lead to catastrophic loss of life and airframe, and increased maintenance and operating costs. FOD hazards can be reduced through the implementation of a FOD control program, which would normally include FOD prevention, detection, removal, and evaluation. Debris, litter, and loose objects on the Apron, if ingested by the aircraft engines or aircraft undercarriage, could lead to costly damage.

While the Authority undertakes regular cleaning of the Aprons, movement areas and Safety Areas, it is the responsibility of all airfield personnel, including Airlines, line maintenance and baggage handling companies, fueling companies, aircraft caterers, cabin cleaning companies, and other personnel at the airside, to prevent the generation of FOD.

8.2 ENGINE HAZARDS

Airline/Operators/Ground Handlers shall train their personnel in the hazards arising from jet ingress/blast and propeller slipstreams. All vehicles and wheeled equipment shall be properly braked, chocked, or otherwise secured to minimize the risk of movement when subjected to jet blast or propeller slipstream. Where practical, equipment should be parked in areas where the risk of jet blast

is minimized. FOD can be moved by jet blast creating additional hazards, and thus it is necessary to ensure that the Airfield is kept clean.

(a) Jet Ingestion - The intake suction of jet engines, even at idle power, is a potential hazard to persons in front of the engines. Large engines are quite capable of ingesting objects or even a human body situated several feet away, with catastrophic result.

(b) Jet Exhaust - The exhaust of jet engine is just as hazardous as the intake. The high temperature and the velocity of the exhaust can inflict severe injury to persons or apron equipment positioned inside the blast area.

9.0 SAFETY AND HAZARD AWARENESS

There are many activities taking place on the AOA within a congested and time-sensitive environment.

All personnel working on or around the Airport must comply with this GOM to maintain standards of safety. Airlines/Operators/Ground Handlers shall incorporate these safety rules and practices with their operational procedures and are responsible for providing safety training to their employees whose duties take place on or around the AOA.

Airlines/Operators/Ground Handlers have a responsibility to ensure the safety of their specific operations. For safe and efficient operations, there is a need for close coordination between the Authority and Airlines/Operators/Ground Handlers.

9.1 MOVEMENT AREA ACCESS NOTIFICATION

Before any Movement Area Qualified personnel enter the Movement Area (other than for the taxiing or repositioning of aircraft), they are required to contact the AOC and provide details of such activity. The AOC may be reached at (813) 870-8770.

9.2 INCIDENT REPORTING

Airline/Operator/Ground Handler and Authority personnel will comply with the following:

(a) **All accidents or incidents shall be reported to the APD by calling (813) 870-8760. IF the accident or incident INVOLVES AN IMMEDIATE EMERGENCY OR LIFE- THREATENING SITUATION, CALL 9-1-1. Text 9-1-1 if you cannot talk on the phone.**

(b) All accidents and incidents resulting in, or with the likely potential to result in, the following must be reported immediately:
   1) Personal injury.
   2) Damage to aircraft, vehicles, equipment, or property; and
   3) Fuel, oil, lavatory, hydraulic, or other environmental spills.

(c) Unless it is unsafe to do so, equipment involved in an accident must be left in place until APD and Operations Department representatives approve the moving of such equipment.

(d) Suspicious behavior or behavior that violates safety and/or security rules should be immediately reported to the APD.

9.3 DRIVING

All persons operating a ground vehicle within the AOA must immediately yield the right-of- way to aircraft, police, ambulance, ARFF, or other emergency vehicles. Emergency vehicles will use audible and/or visual signals and will be marked accordingly for their respective functions. In addition, the following requirements apply:

The speed limit in baggage areas is 5 MPH.

The speed limit on the apron and Service Roads is 15 MPH.

The speed limit on non-Apron service roads is 20 MPH.

(a) Vehicles transporting over 100 gallons of fuel are prohibited in the Service Road Tunnel near Runway 19L.

(b) A driver must consider weather conditions, position of vehicle in relationship to obstacles blocking line-of-sight or near other vehicles/personnel/objects, and number/type/weight of GSE being towed.

(c) Some conditions may require a vehicle be driven slower than the posted speed limit, such as when turning sharply while towing or in an area with reduced visibility. The primary consideration regarding speed is accident prevention.

(d) All vehicles must have adequate and functional lights (e.g., Brake lights, headlights).

(e) Vehicles and equipment shall not block or impede exit doors, stairwells, egress areas, emergency fuel shutoffs, emergency equipment (such as fire extinguishers), eyewash stations, or other vehicles, equipment, and/or supplies.

(f) All operators of vehicles within the AOA shall always have their valid State driver's license on their person while operating within the AOA.

(g) Vehicles transporting lavatory carts are prohibited from entering a tug well or luggage-sort facility.

(h) No vehicles or GSE are authorized to drive under any PBB at the Airport. There are three exceptions to this rule:

(1) To conduct maintenance on the PBB being driven under.

(2) Operational necessity or to safely ground handle an aircraft; and

(3) If the air carrier/ground handler has a safety plan that clearly defines how the entity will ensure safety while operating vehicles/GSE underneath PBBs and such safety plan has been approved by the Airport Operations Department.

Apron Service Roads

Apron service roads are established and defined paths on the Apron and surfaces that intermingle with areas used to maneuver aircraft. They can be easily identified by the black and white checker pattern (often referred to as a "zipper road" **or vehicle service road**) or solid white line on either side of the roadway. Complacency while driving on the Apron service road should be avoided. All vehicle operations must always exercise extreme caution and ensure that they always yield to all aircraft.

Apron Service Road (Red shading added to delineate)

(a) Apron Service Road

(1) While operating within the zipper or solid aprons service roads, drivers must always give way to aircraft.

(2) When operating within Apron Service Roads, drivers must maintain situational awareness.

(3) Use of the Apron Service Roads is mandatory; however, due to Airport design, there can be instances where drivers must leave the service road to avoid aircraft wingtip clearances, pick up FOD, or respond to an emergency.

(4) Apron Service Roads may be blocked by staged GSE no more than 15 minutes prior to a flight.

(5) Know vehicle height restrictions and always remain clear of all aircraft.

(6) Pedestrians shall not enter an Apron Service Road or taxilane which is for vehicles only. Pedestrians are authorized to use or cross an Apron Service Road or work within a taxilane if involved in an aircraft pushback or engaged in an activity supervised by Airport Operations such as a FOD walk or a response to a cleanup.

This depicts the service road adjacent to taxilane Z

Note: Vertical road signs are read top to bottom and surface painted signs are read from the perspective of the intended recipient. The messages in the following signs both instruct the recipient to yield.

Road sign read top to bottom

Surface Painted signs face the intended audience

9.4 VALID DRIVER'S LICENSE, NMAT and MAT

Airline/Operator/Ground Handler personnel will comply with the following:

9.1 Airlines/Operators/Ground Handlers with employees that access the aprons and movement areas must ensure that such employees have a valid state driver's license prior to authorizing any driving privileges pertaining to motor vehicles and/or GSE. Their license must also be on their person while operating a vehicle at TPA.

9.2 A driver must be always in possession of a valid state driver's license on their person.

(a) Driver authorization is invalid if the State driver's license is invalid. A driver's unescorted Movement Area or Non-Movement Area authorization will be invalid during any period that his/her driver's license is not valid (i.e., expired, revoked, or suspended).

(b) All personnel must have an NMAT qualification on their SIDA badge to drive on the Non-Movement Area.

(c) All personnel must have a MAT qualification on their SIDA badge to drive on the Movement Area or Non-Movement Area.
(d) Individuals must immediately report suspensions or revocations of their state driver's licenses to the Operations Department at (813) 870-8770.
(e) Airlines/Operators/Ground Handlers with employees that access the AOA and Apron Areas of the Airport must conduct, at a minimum, quarterly reviews, and audits of the status of employee State driver's licenses to ensure that employees possess and maintain a valid State driver's license.
(f) Where a review and audit find that an employee does not possess and maintain a valid State driver's license, the Airline/Operator/Ground Handler must immediately notify the Airport Operations Department at (813) 870-8770 and advise the Authority as to what corrective actions will be taken.

9.5 RECKLESS DRIVING

Airline/Operator/Ground Handler personnel will comply with the following:

(a) No person shall operate a ground vehicle within the AOA in a reckless manner. Prudent vehicle operation requires regard for traffic, weather conditions, and all other attendant circumstances so as not to endanger the life, limb, or property of any person.
(b) All persons operating a ground vehicle must adhere to all signs, markings, and other traffic control devices instructing drivers to stop, yield, maintain speed, proceed with caution, or otherwise control movement within the AOA.
(c) The use of seatbelts greatly mitigates risks of vehicle-related hazards, complies with current Florida law, and is mandatory.

9.6 WIRELESS TELECOMMUNICATIONS EQUIPMENT

No vehicle operator shall use a hand-held wireless telecommunications device while driving, operating, or servicing a vehicle.

10.0 SAFETY MANAGEMENT

Airline/Operator/Ground Handler personnel will comply with the following:

(a) PPE: The Airfield is a high noise environment, and the use of personal hearing protection is highly recommended. Personnel must also have access to eye and hearing protection, as well as easy access to applicable PPE such as hard hats, eye protection, welding masks, and breathing respirators, as appropriate. All PPE must be properly maintained and in good condition. Such personnel must also have easy and quick access to replacement PPE.

(b) Situational Awareness: Maintaining situational awareness while working in the AOA is essential to providing a safe environment. Unnecessary distractions must be kept to a minimum and a worker's senses must be unhampered by earbuds/headphones, electronic devices, and other items that require attention. Earbuds/headphones provide additional and competing sound in an already loud environment and are strictly prohibited.

(c) Reflective Wear: All personnel on the Airfield shall wear high visibility reflective vests, shirts, or belts, in good condition, free of tears and fading, as their outermost garment and while in or on a vehicle or GSE.

(d) Protective Footwear: All personnel working on the airside should wear appropriate protective footwear to protect from a possible foot injury. Footwear should be designed to prevent sparks for fire safety reasons.

(e) Reporting Safety Discrepancies: The AOC may be notified of any malfunctioning, missing, or damaged equipment at the Airport. This includes, but is not limited to, gates, lights, pavement, safety equipment, triturators, and fuel tanks.

(f) Reporting Reckless or Unsafe Practices or Events: There are several ways to report dangerous situations. The AOC may be notified of any unsafe practices taking place at the Airport including reckless driving, towing, or operation of equipment, or other practices such as safety equipment or guidelines not being followed. The taking of video/photographs of these situations is highly encouraged.

(g) Personnel at all levels are encouraged to utilize the TPA Hazard Reporting app. This app is an efficient way to anonymously report safety discrepancies, near misses, recklessness, or unsafe practices of events. This app should not be used for reporting emergencies or other situations that need an immediate response.

The Hazard Reporting app can be accessed using the QRC code. Note that the report can be anonymous.

(h) Reporting Accidents and Spills: The AOC shall be immediately notified of an accident or spill of fuel, oil, or other chemicals. The AOC shall coordinate the response of firefighters, maintenance, ambulances, police, and Operations.

(i) Provide Suggestions: Several changes to the GOM and the TPA Safety Program have been implemented that came directly from tenants. These include 48 hours to remove derelict GSE from the apron, painted lines at Checkpoint Alpha to protect GSE from damage, and the surface painted 15 mph speed limit on the Service Roads. All stakeholders and encouraged to share their suggestions to improve the GOM and safety program.

(j) Safety Meetings: At least one tenant supervisor or manager is required to attend the Quarterly Safety Meetings hosted by the Operations Department. Tenants are highly encouraged to send front-line workers to safety meetings sponsored by the Operations Department and to share the information learned with all their employees. The goal of these meetings is to build a robust safety culture by sharing lessons learned and spreading safety knowledge and the rules of this GOM.

(k) Monthly Safety Reports: The Safety Reports are compiled by Operations and shared with the leadership of each tenant. Personnel receiving Safety Reports are encouraged to share the information as they see fit.

(l) Safety Citations: AOMs (Airfield and Terminal), and AOSs are authorized to submit safety citations for any violations of the GOM.

(m) Other Documents regarding Operations at Airport: There are other documents that pertain to safety and operations at the Airport. All Airlines, Operators and Ground Handlers should be familiar with the documents listed in Appendix A.

(n) Barricade Policy: Appendix B outlines the requirements for the placement of barricades for maintenance and construction crews.

APPENDIX A: APPLICABLE AUTHORITY RULES AND REGULATIONS, OPERATING DIRECTIVES AND STANDARD PROCEDURES & FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULARS

D342.00.02 – Use of Federal Inspection Clearing Area D342.00.03 – Aircraft Passenger Disability Boarding Device
D342.00.04 – Assignment and Utilization of Authority's Baggage Claim Devices
D342.00.05 – Utilization of Authority Controlled Gates, Hardstands, Ticket Counter, and Related Facilities on a Per-Use Basis
D343.00.01 – Air Cargo Apron Operations
D343.00.02 – Washing of Aircraft at Tampa International Airport D343.00.03 – Airside Aircraft Aprons
S343.04 – Smoking and Open Flame on the Apron and Ramp Areas of Tampa International Airport
S343.05 – Response to Sightings of Unmanned Aircraft Systems D343.00.05 – Restricted Aeronautical Activities
D343.00.06 – Vehicles and Personnel Access to Airfield Movement and Safety Areas D344.00.01 – Engine Run-Up Noise Management
D344.00.01 - Engine Run-up Noise Management
D350.00.01 – Specific Fire Safety Fuel Standards and Inspection
S343.02 – Procedures for Ceremonial Water Salutes at Tampa International Airport S350.01 – Airport Self-Inspection Program
S350.05 – Airfield Visual Requirements S350.06 – Training for the Use of AEDs R340 – Rules & Regulations for TIA P345 – TPA Ground Operations Manual
FAA AC No: 150/5370-2 – Operational Safety on Airports During Construction FAA AC No: 150/5300-13 – Airport Design

APPENDIX B: TPA BARRICADE POLICY FOR MAINTENANCE AND CONSTRUCTION AIRFIELD CLOSURES

All maintenance and construction activities shall be properly barricaded and always protected from aircraft and vehicular traffic. Airfield Operations will inspect and approve all barricaded construction areas before work begins and conduct a final inspection following the work to ensure the work area has been returned to a compliant condition before re-opening to aircraft use.

This policy is to be used during airfield maintenance and construction activities. The use of barricades during other measures requiring a surface closure such as a weather event or aircraft emergency will be determined by Airfield Operations on a case-by-case basis.

BARRICADE PLACEMENT DURING AIRFIELD MAINTENANCE (TAXIWAYS)

(a) Barricades will be placed in a manner to direct aircraft traffic around construction activity without impeding normal operations to the extent possible.

(b) All taxiways that lead into a runway will have no less than seven (7) barricades installed. One barricade will be placed directly on the center taxi line, and three barricades on either side will be installed no more than 10 feet from the initial barricade. For taxiways that are larger than 75 feet wide, Airfield Operations will determine how many barricades should be used on the taxiway.

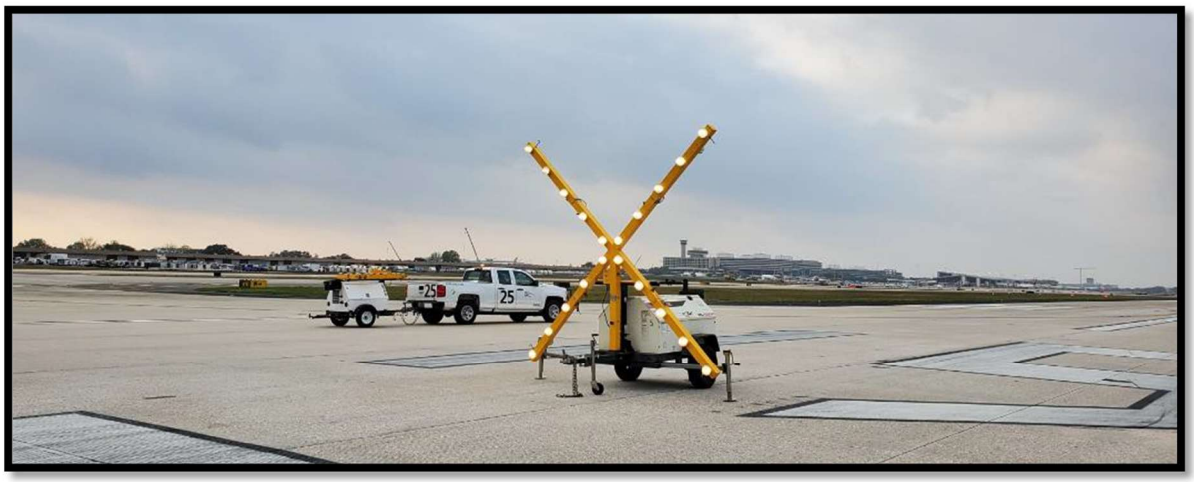
(c) For runway/taxiway intersections, place a vinyl X at the entrance to the closed taxiway when the adjacent runway will remain open.

(d) All barricades will always have functional blinking red lights during night operations.

(e) Barricades or traffic cones are not permitted in active taxiway safety areas at any time.

BARRICADE PLACEMENT DURING AIRFIELD MAINTENANCE (RUNWAYS)

(a) All runway closures for maintenance activities exceeding 2 hours require the use of a lighted X at each end of the runway directly on or as near as practicable to the runway designation numbers.



(b) Barricades will be placed in a manner to direct aircraft traffic around construction activity without impeding normal operations to the extent possible.

(c) All runway locations to be closed will have no less than seven barricades installed where active taxiways or runways cross a closed runway. One barricade will be placed directly on the runway centerline, and three barricades will be installed on each side, covering as much of the runway surface as possible.

(d) All barricades will always have functional blinking red lights during night operations.

(e) Barricades or traffic cones are not permitted in active runway or taxiway safety areas at any time.

(f) Traffic cones will be permitted as a means of delineation for daytime closures. The quantity and spacing will be determined by Airfield Operations.

BARRICADE PLACEMENT DURING CONSTRUCTION (ALL SURFACES)

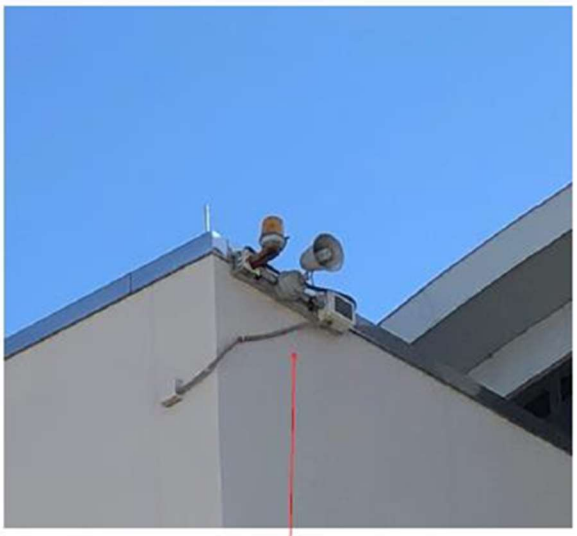
(a) Given the duration of airfield rehabilitation and construction projects, all barricades will be placed in accordance with FAA Advisory Circular No. 150/5370-2 or most current edition.

(b) Barricades will be interlocked to prevent all types of traffic from entering the construction area and continue the entire width of the surface being closed.

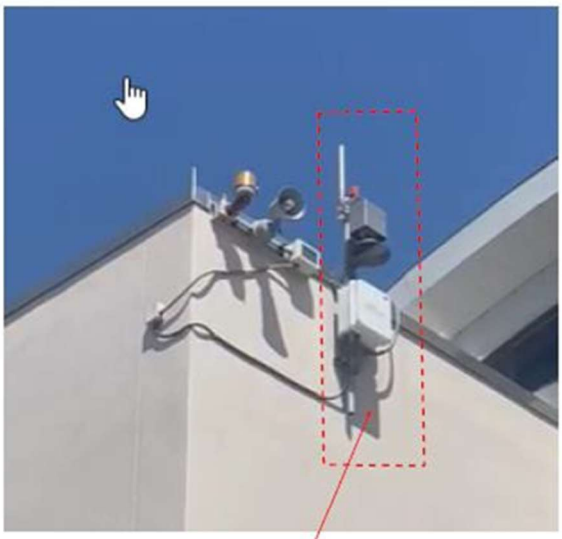
(c) Each barricade will be equipped with two (2) blinking red lights that will be always functional during night operations.

(d) Barricades will be weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, and other surface wind currents.

APPENDIX C: LIGHTNING WARNING SYSTEM



Old System.
Will be removed after new system testing period.



New System.
Installed adjacent to all existing system components.
Same locations

EXISTING vs NEW Sounds and Visuals:

1. Exterior:

Sound: Both existing and new system horns sound similar, with similar long blasts for Alert and three short blasts for All-Clear.

Visual: Both existing and new system have amber lights.
Existing = rotating amber light
New = flashing amber LED strobe; 1 flash per second.

Cut/Paste this link in a browser for audible clip of horns.

https://www.fedsig.com/sites/default/files/resource_library_document/551.mp3

2. Interior:

Existing and new notification boxes look and function differently. Old = "R.A.D." New = "Informer"

Existing utilizes a green-yellow-red light system for clear, alert and an interim standby.

New system sounds an alert similar to exterior horns, and fires a red strobe while in alert only.
Small LEDs on the box indicate power, alert, trouble and test, however the primary visual indicator is the large red flashing strobe on top.

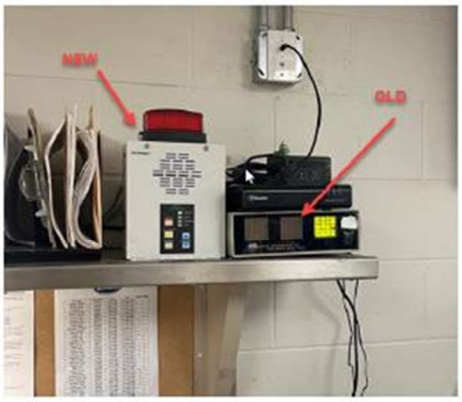
What the Sounds and Strobe Light Mean:

1. Alert: One long 10 second horn blast = Lightning detected within 3.1 mile radius. Seek shelter now.

2. Strobe flashing = In alert. Seek Shelter. Exterior units = amber strobe.
Interior units = red strobe.

3. All Clear: Three short 5 second horn blasts. All clear; safe to resume outdoor activities.

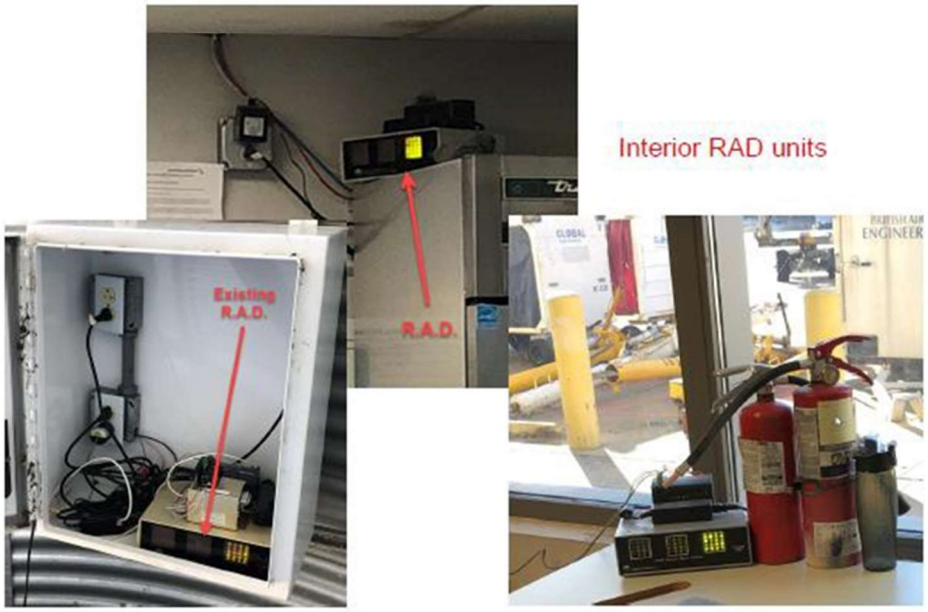
New 'Informer' interior unit



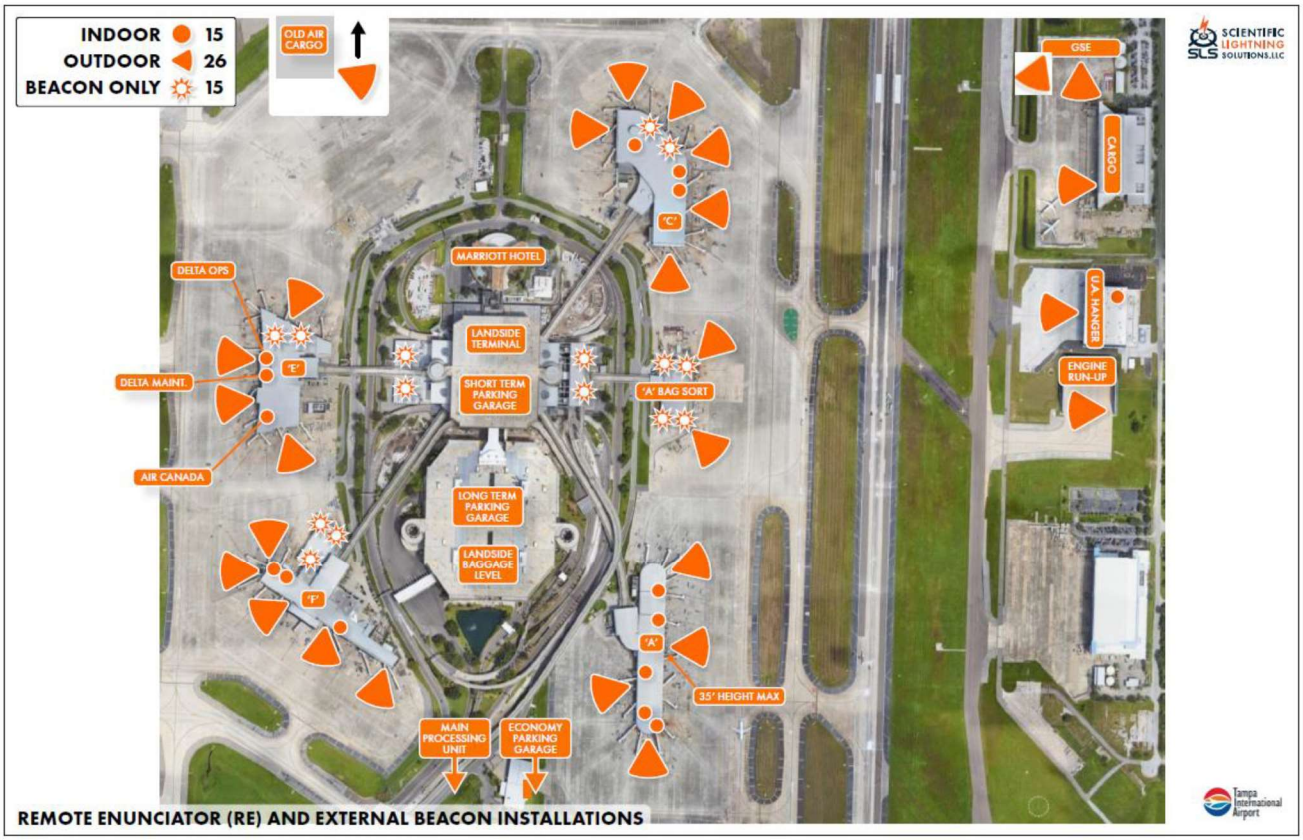
Existing System Photos:

Beacon Only (baggage areas)

Horn & Beacon (exterior)



Interior RAD units


INDOOR 15
OUTDOOR 26
BEACON ONLY 15
OLD AIR CARGO
SCIENTIFIC LIGHTNING SOLUTIONS, LLC
GSE
CARGO
U.A. HANGER
ENGINE RUN-UP
'C'
MARRIOTT HOTEL
DELTA OPS
LANDSIDE TERMINAL
'E'
DELTA MAINT.
SHORT TERM PARKING GARAGE
'A' BAG SORT
AIR CANADA
LONG TERM PARKING GARAGE
LANDSIDE BAGGAGE LEVEL
'F'
'A'
35' HEIGHT MAX
MAIN PROCESSING UNIT
ECONOMY PARKING GARAGE
REMOTE ENUNCIATOR (RE) AND EXTERNAL BEACON INSTALLATIONS
Tampa International Airport