Tampa International Airport

Movement Area Training Program For Ground Vehicles

Revised April 2021

INTRODUCTION

The Aviation Authority conducts formal training for all personnel authorized with unescorted access to the movement areas at Tampa International Airport. The movement area includes all areas under direct control of the FAA Air Traffic Control Tower (ATCT), which includes the runways, safety areas and taxiways. This training guide is a tool to familiarize individuals with the airport environment, safe driving techniques, proper procedures and safety requirements for operating on the movement area. Learning the correct procedures for driving on the movement area is critical to airport safety and efficiency.

The Federal Aviation Administration continues to lead an industry-wide effort to improve runway safety and prevent incursions through increased education, training, and awareness.

A runway incursion is defined as “Any occurrence at an aerodrome 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.”

In order to minimize the risk of runway incursions, it is extremely important that all persons conducting movement area operations have a thorough understanding of the airfield layout at Tampa International Airport (TPA) as well as familiarity with applicable ATCT & Surface Movement Guidance Control System (SMGCS) procedures, which will be explained later in this training guide.

Runway incursions are primarily caused by an error in one or more of the following areas:

1. Pilot, ground vehicle, or controller communications
2. Airport familiarity
3. Loss of situational awareness

When driving on the airfield, vehicle operators must always be aware of their location and the meaning of all pavement markings, lighting, and signage.

Many runway incursions occur as a result of a lack of situational awareness by the vehicle operator. Situational awareness is an individuals' perception about what is going on around them and their perceptions of where they are in relation to where they think they are. The higher the situational awareness of a ground vehicle operator, the lower the risk for a runway incursion or other surface incident.

Air Operations Area (AOA) Access Requirements

Personnel whose job function requires unescorted access to the movement area MUST possess or be escorted by a person possessing an Airport Security Identification Display Area (SIDA) badge with a Movement Area Trained (MAT) endorsement printed on the upper right-hand corner. The scope and meaning of ground vehicles have been expanded to include non-flight crew aircraft movements, such as repositioning an aircraft by an airline mechanic.

There are three distinct levels of MAT endorsements that are utilized at TPA. Each level delineates the access of the individual and the associated training requirements.

Level 1 – Airfield Operations

Level 2 – Airfield Maintenance, Airport Rescue & Fire Fighting, FAA Tech Ops and other personnel identified by the Executive Vice President of Operations and Customer Service or designated representative

Level 3 – Individuals trained to taxi/tow aircraft within the movement area

All personnel who initially obtain a MAT endorsement or are getting their endorsement renewed, will be required to successfully complete the movement area training program that aligns with their job function (see attachments).

For safety, all personnel who operate in the AOA shall wear a high visibility safety vest while working outside of vehicles.

Personnel whose job function requires access to the Movement Area must meet the following requirements:

1. Operational need approved by the Aviation Authority to access the movement area
2. Successful completion of all training requirements
3. MAT and authorized to operate on the movement area
4. Two-way radio capable of communications with ATCT or be escorted by an authorized operator with two-way communications
5. Operating rotating beacon
6. A valid driver's license or company authorized taxi certification
7. All level 2 and level 3 MAT personnel are required to notify Airfield Operations of all instances of access to the movement area by calling the Airport Operations Center (813)-870-8770

AIR OPERATIONS AREA FAMILIARIZATION

Airport Basics

All airports, regardless if they serve air carriers or general aviation, have common elements. It is important to remember that both a driver and vehicle are considered obstacles to aircraft utilizing the airport, and must operate within the guidelines of these specific areas. Airports are different from any other environment. Each person operating on the movement area must make safety our first priority. Driving on the movement area is a privilege, not a right, and violating any rules or regulations may result in your driving privileges being suspended or revoked.

Air Operations Area (AOA)

The Air Operations Area is the portion of the airport designed for the use of landing, taking off, and surface maneuvering of aircraft.

Runways

Runways are the areas where aircraft land and take-off. Runways are meant for the exclusive use of aircraft. Operators should never walk or drive on a runway unless specifically authorized to do so by the ATCT.

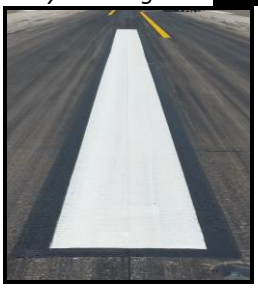
Runways are marked with white painted stripes. The stripes are solid along both edges of the pavement and a dashed white stripe down the centerline. Additional markings may include white threshold stripes located at both ends of the runway, and white touchdown zone and aiming point markings that are located at various points along the entire length of the runway. For night and low visibility operations, the runway is marked with white lights along the edges and along the centerline, white touchdown zone lights, green runway threshold lights, and red runway end lights. Additional lighting may include yellow edge lights with red centerline lights that denote the last thousand feet of runway.

Runways are primarily identified by numbers relating to the magnetic compass direction they are aligned with. The numbers indicate the nearest 10-degree increment of the azimuth of the runway centerline. The magnetic azimuth of the runway centerline is measured clockwise from the magnetic north when viewed from the direction of approach. For example, a runway facing south corresponds with a compass heading of 190 degrees. By omitting the zero at the end, the runway is designated Runway 19 (pronounced one niner, not nineteen). Consequentially, the opposite end of the runway, facing north, has a

magnetic compass heading of 010 degrees and is designated Runway 1. These designation numbers are marked with white paint and are located at each end of the appropriate runway.

Runways that are aligned and designated as parallel to each other share the same numeric designation, but are differentiated by using left, center, and right. The numeric designation and an "L", "C" or "R" is painted at the appropriate runway end. Since Tampa has two runways that align on 10/190 degrees we have Runway 1L/19R (pronounced one left/one niner right) and Runway 1R/19L (pronounced one right/one niner left).

Runway markings are ***WHITE***



Runway edge lights are ***WHITE***

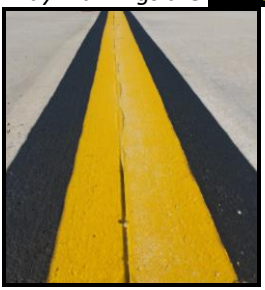
Taxiways

Taxiways are used by aircraft to move from gates and parking areas to runways. As with runways, never walk or drive on a taxiway unless authorized to do so by the ATCT.

Taxiways are marked with double solid or dashed yellow edge stripes and a solid yellow centerline. Some taxiways are marked with a solid yellow centerline with a black border. These taxiways are designated low visibility routes that are used when low visibility procedures are in effect. For night and low visibility operations, the taxiways are marked along the edge with blue lights and may be equipped with green centerline lights at high-speed taxiways exiting the runway.

Taxiways are designated with alphabetic or alphanumeric identifiers such as A (Alpha), or A-1 (Alpha-one). These designators are placed on signage mounted at the intersections adjacent to the corresponding taxiway.

Taxiway markings are ***YELLOW***



Taxiway edge lights are ***BLUE***

Airport Layout Plan Familiarization

The most important action one can take to help ensure safety and the safety of others is to learn the layout and configuration of the specific airport. Take time to review provided airfield maps and materials. If your job requires occasional access to the airfield, ensure familiarization of these materials before reporting to the job site. The airport environment is dynamic, current maps and information are critical.

For our purposes, TPA is divided into two specific areas: the **Movement Area** and the **Non-Movement Area**.

Movement Area

The movement area includes all of the areas under control of the ATCT, which includes the runways and taxiways. The operator has the sole responsibility to be aware of their exact location with respect to runways and taxiways at all times and to follow the controller's instructions exactly as given.

Non-Movement Area

The non-movement area includes ramp areas, service roads, and maintenance ramps. These areas do NOT require radio contact with the ATCT. Ramps are the areas where aircraft park, load, and are serviced.

Operators must exercise extreme CAUTION and give undivided attention to surroundings while operating a vehicle or walking in these areas due to high levels of aircraft activity and extensive use of ground support equipment.

Safety Areas
Runways and taxiways are surrounded by safety areas that are designed to provide an increased level of safety for aircraft landing and taking off. The dimensions of the safety areas vary according to the runways. These safety areas are intended to minimize damage to an aircraft during emergency situations, such as an aircraft overshooting or veering off the runway.

Runway Safety Areas
If conditions do not justify closure of the runway and personnel or vehicles need to enter the Runway Safety Area (RSA), they shall obtain a clearance from the ATCT for "access to the runway" even if their position will not place them on the actual runway pavement. The term "Runway Safety Area" shall not be used when coordinating with the ATCT.

Note: Air Traffic Control personnel will not make any distinction between the Runway and the RSA. Once clearance is granted, no arrivals or departures will be authorized on that runway.

Personnel and vehicles shall report "clear of the runway" when exiting the runway or the Runway Safety Area. The term "clear of the runway" shall indicate to ATCT personnel that protection is not required and that operations on the runway may continue. For example if Airport 8 needed to pick up FOD between the runway and taxiway but is not in the safety area of said runway, Airport 8 would advise Ground Control that he was "in the grass east of the runway to remove FOD and will remain "clear of the runway".

With respect to operations in the movement area, there are no changes in procedures. Vehicles must hold short at the mandatory hold short line and request permission from Air Traffic Control for access to and/or to cross runways.

Airfield Dimensions
TPA is served by three runways and a highly efficient network of parallel and transversing taxiways. Although there are only three paved surfaces classified as runways, each surface serves as two separate runways depending on wind direction and operational requirements.

The runways at Tampa International Airport are:

- 1L-19R 11,002' x 150' Concrete/Grooved
- 1R-19L 8,300' x 150' Concrete/Grooved
- 10-28 6,999' x 150' Asphalt/Concrete/Grooved

There are several major taxiways that aircraft use to access between the runways and the ramp areas. Most of the letters that name these taxiways can also be used to help identify their location in relationship to the runways and ramp areas.

Taxiways Whiskey, Charlie, and Echo are the main taxiways running north and south. Whiskey is located parallel to runway 1L/19R and is on the airports west side. Echo is located parallel to runway 1R/19L and is on the airports east side. Charlie is located parallel to runway 1R/19L and is in the center of Whiskey and Echo.

Taxiways November and Sierra are the main taxiways running east and west parallel to runway 10/28. Taxiway November is located on the north side of runway 10/28. Taxiway Sierra is located on the south side of 10/28.

Taxiway Juliet is south of the terminal and crosses over the parkway between runways 1L/19R and 1R/19L. Taxiway Juliet is a main Junction for all the runways. Taxiways Alpha and Bravo are north of the terminals and run east and west between 1L/19R and 1R/19L.

Taxilane Golf on the east side and Taxilane Victor on the west, follow the movement area boundary lines around the terminals and gates. Aircraft use taxilanes in the same manner as other taxiways except they do not need to contact ATCT.

Marking, Lighting, and Signs

Runway, taxiway signs, and markings are essential for the safe and efficient use of airports. It is important that you know the meaning of the signs and markings used on the airport. At certain locations, information on signs are also painted on the pavement.

Non-Movement Boundary Marking

The boundaries of the Movement Areas versus the Non-Movement Areas are designated by a single yellow dashed line with a single yellow solid line outlined in a black background painted on the pavement. The dashed line will be on the Movement Area side and the solid line will be on the Non-Movement Area side.

Non-Movement Boundary Marking

Do NOT cross the Non-Movement Area Boundary marking without receiving clearance from the ATCT

Hold Position Signs and Markings

Hold position signs are utilized to mark areas that require you to receive further clearance in order to enter. These signs are made up of white letters on a red background. Treat these signs as a stop sign. However, in order to proceed past these signs clearance from the ATCT is required. Examples are Runway Hold Position signs and Instrument Landing Systems (ILS) Critical Area Hold Position signs.

Hold Position Sign for 1R-19L

Hold Position Sign for 1L–19R

Hold position markings are installed at the edge of the runway's safety areas across taxiways that intersect with runways and across taxiways entering an ILS critical area. These markings consist of a double yellow dashed line with a double solid yellow line outlined in a black background painted on the pavement. The **SOLID LINES** are **ALWAYS** on the side where the aircraft or vehicle is to hold. Hold position markings are accompanied by hold position signs and together they form a protective box around the runway called the RSA. Again, these signs and markings should be treated as a stop sign.

Runway guard lights, either elevated or in-pavement, have been installed at taxiways, which provide access to Runway 1L/19R and on Runway 1R/19L at Taxiway J. They consist of alternately flashing yellow lights and denote the presence of an active runway during low visibility conditions.

Elevated Runway

In-Pavement Runway Guard Light

Remember, no vehicle or person may enter the RSA unless they receive specific clearance from the ATCT.

A good rule of thumb in determining which side of a hold position you are on is to remember to match the D's and S's. **D**ashed lines are on the side of **d**anger (runway), while **S**olid lines are the **S**afety (taxiway) side.

position, stop your vehicle well short of the actual markings and signs in order to give yourself enough room to maneuver without crossing the hold position markings without clearance. Likewise, when you are exiting a runway, make certain vehicle(s)s are completely past the hold position markings before reporting “clear of the runway”.

Instrument Landing Systems (ILS) Hold Position Signs and Markings
In general, the critical area is the area that all vehicles must remain clear of when the ILS system is in use. Objects located within this protective zone can interfere with a landing aircraft’s navigational aid signal transmitting from a nearby device.

A solid yellow “ladder” type denotes the ILS critical area boundaries pavement marking and the ILS hold position sign that was mentioned earlier. The critical areas are in effect anytime the ceiling (clouds) is less than or equal to 800 feet and/or the visibility is less than or equal to 2 miles. You must receive clearance from ATCT to enter the critical areas under these conditions. To determine if the critical areas are in effect monitor ATIS or contact Airport Operations.

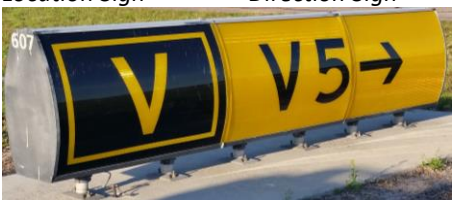
ILS Hold Position Sign

ILS Critical Area Boundary Marking

Taxiway Location Signs
Taxiway location signs have yellow letters on a black background and identify what taxiway you are currently on.

Taxiway Direction Signs
Taxiway direction signs have black letters on a yellow background and will have an arrow or arrows to show you the approximate direction of other taxiways leading out of an intersection.

Location Sign *Direction Sign*



This Taxiway Location Sign identifies Taxiway Victor

This Taxiway Direction Sign identifies Taxiway Victor 5 is on the right

Taxiway location and direction signs may be grouped in clusters at complex intersections. The location sign may be in the middle of the

cluster with all direction signs requiring a left turn mounted to the left side of the location sign and all taxiways requiring a right turn mounted to the right side of the location sign.

Taxiway Location and Direction Sign (Complex Intersection)

This Taxiway Location and Direction Sign at a complex intersection identifies Taxiway Bravo 6 and that Taxiway W is on the left and right. Taxiway Whiskey 6 is straight ahead.

Destination signs have black letters on a yellow background and provide general taxiing directions to identified destinations.

Destination sign

This Destination Sign identifies Maintenance Run-Up Area is on the left

RADIO COMMUNICATIONS

All operators on the movement area are required to know and use standard aviation phraseology and communication techniques when communicating with ATCT.

Before talking on the ground radio frequency, think about what you are going to say. Wait at least 5 seconds before speaking to ensure you do not "step" on another radio transmission. Regardless of traffic volume or frequency congestion, **NEVER HESITATE** to ask for clarification if uncertain of the tower's instructions. Acknowledge **ALL** instructions received from the control tower. Be aware of other radio conversations in progress and do not interrupt another radio transmission.

TPA Radio Frequencies

GROUND	121.7
TOWER	119.5
ATIS	126.45
DISCRETE	121.35

There are two main radio frequencies used at TPA; Ground Control and Tower. The "Tampa Tower" frequency is 119.5 and is used to coordinate takeoffs and landings with aircraft pilots. "Tampa Ground" Control frequency is 121.7 and is used to direct all aircraft and ground vehicles while traveling in the movement area.

As an example, arriving pilots will use the tower frequency while on approach and landing at Tampa, once the aircraft lands and turns off the runway; they switch to ground control and receive instructions on taxiway routes to their assigned gates.

As a ground vehicle or non-flight crewed aircraft, use the ground control frequency 121.7 while on the movement area, unless otherwise instructed by ATCT.

Phonetic Alphabet

A – ALPHA	**H – HOTEL**	**O – OSCAR**	**V – VICTOR**
B – BRAVO	**I – INDIA**	**P – PAPA**	**W – WHISKEY**
C – CHARLIE	**J – JULIET**	**Q – QUEBEC**	**X – X-RAY**
D – DELTA	**K – KILO**	**R – ROMEO**	**Y – YANKEE**
E – ECHO	**L – LIMA**	**S – SIERRA**	**Z – ZULU**
F – FOXTROT	**M – MIKE**	**T – TANGO**	
G – GOLF	**N – NOVEMBER**	**U – UNIFORM**	

Standard Phraseology

Acknowledge	Let me know you have received and understand this message.
Advise Intentions	Tell me what you plan to do.
Affirmative	Yes
Confirm	My version is…is that correct?
Go ahead	State your request or continue speaking ("Go ahead" does not mean to proceed driving)
Hold	Stay where you are.
Hold short of…	Proceed to but hold short of a specific point
Negative	No. Permission **NOT** granted. That is **NOT** correct.

Proceed	You are authorized to begin or continue moving.
Read back	Repeat my message to me.
Roger	I have received and understand all of your last transmission. (Do not use to answer a yes or no question)
Say again	Repeat what you just said.
Stand By	Wait…I will call you back. (Standby is not an approval or denial. The caller should reestablish contact if delay is lengthy).
Unable	I cannot do it.
Verify	Request confirmation of information. Also, check and transmit correct info.
Without Delay	Proceed with approved instructions rapidly.
WILCO	I have received message, understand, and will comply.

Communicate on, and continuously monitor, the designated frequency whenever on the movement area. Any communication with the ATCT should include the following sequence:

EXAMPLE

1. Whom am I calling?
   Tampa Ground
2. Who am I?
   Airport 7/Aircraft Tail #/ARFF 4
3. Where am I?
   Taxiway Juliet 1
4. What you want to do?
   Request permission to cross runway one niner left at taxiway Juliet and proceed to the FedEx ramp

The controller will either approve or deny the request, or issue special instructions. An example of the instruction would be, "Airport 7, proceed as requested. Hold short of Runway one niner left." Acknowledge that you have heard the controller's instruction. For example, "Airport 7, holding short of Runway one niner left."

Always repeat hold short instructions.

Then comply with the instructions.

If the controller issues any holding instructions, **you are required to read back the holding instructions word for word.**

An example of a request to enter the movement area is as follows:

You:	"Tampa Ground, Airport 6, request permission to enter the movement area at Taxiway Victor 2 and proceed north on Whiskey. Will give way to all aircraft and remain clear of all runways."
Ground:	"Airport 6, Tampa Ground, proceed as requested."
You:	"Airport 6, proceeding north on Taxiway Whiskey."

An example of a request to cross runway 19L at Taxiway Charlie 1 is as follows:

You:	"Tampa Ground, Airport 25 at Taxiway Charlie 1, request to cross Runway 19L."
Ground:	"Airport 25, hold short Runway 19 Left at Taxiway Charlie 1, landing traffic."
You:	"Holding short Runway 19 Left at Taxiway Charlie 1, Airport 30."

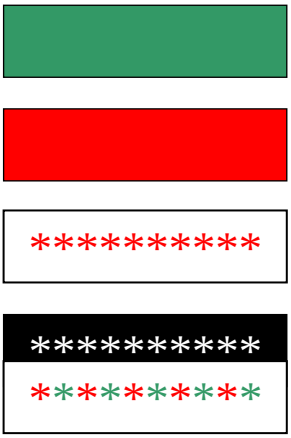
When you have completed driving on the movement area and are clear of ALL, runways and taxiways, report "(vehicle identifier) clear of the movement area" to the ground controller.

Light Gun Signals

Air traffic controllers have a backup system for communicating with pilots and ground vehicle operators if a radio fails while on a runway or taxiway. If possible, you should try to exit the area **without crossing any runways**. Many areas on the airfield allow access to a service road. If it is not possible to exit the area without entering a taxiway or runway, try to contact Airport Operations by either cell phone or radio. Airport Operations will either obtain and relay a clearance from ATCT or will respond to escort the vehicle and/or personnel off the airfield.

If unable to receive help via cell phone or Authority radio, turn vehicle towards the tower, start flashing headlights and the controller will signal instructions using a color coded spot light, known as a light gun. **Be Patient!** Even a failed radio is not an excuse for proceeding without proper clearance.

Light gun signals are to be interpreted as follows:



Steady Green…Cross runway or taxiway; proceed; go.

Steady Red…Stop.

Flashing Red…Clear the runway or taxiway immediately.

Flashing White…Return to starting point on airport

Alternating red and green…Use extreme caution; can be followed by any other signal;

After receiving a light gun signal, acknowledge the instructions by flashing your headlights. If the signals are not clear or they're confusing, drive into the adjacent grass area and wait for assistance.

Laws, Regulations, and Local Ordinances Governing Vehicular Traffic

Traffic Control

All ground vehicle operators are required to obey all posted regulatory signs, traffic signals, and all instructions by ATCT, Airport Management, or by TPA Law Enforcement Officers.

Speed Limits

Ground vehicles should operate on the Movement Area at a speed that is reasonable and prudent under the conditions with regard to the actual and potential hazards existing.

There are posted speed limits for the following areas within the Non-Movement Areas:

Ramp areas - 15 mph Baggage make-up areas - 5 mph

Any person operating a ground vehicle on the AOA shall **yield right-of-way to all aircraft**.

Ground Vehicle Accidents
Any person operating a ground vehicle on the AOA who is involved in an accident shall stop the vehicle at the scene, or as close as possible without obstructing traffic, contact Airport Police, and remain at the scene of the accident and provide a full report to the investigating officer. Upon request, any relevant ID badge, permit, license, or registration shall be surrendered to the investigating officer.

Enforcement
Senate Bill 787, which became law on June 22, 1983, amended Florida Statute 316.003 (53) to extend the enforcement of Florida uniform traffic laws to airport areas even though these areas are not open for use by the general public for purposes of vehicular traffic.

This statute permits HCAA to enforce traffic regulations within the boundaries of TPA in areas such as runways, taxiways, ramps, parking lots, service roads, baggage make-up areas, and baggage tunnel drives.

Safe Vehicle Operating Guidelines

Operating on the Movement Areas
Exercise extreme caution and give undivided attention to surroundings while operating a ground vehicle on the AOA. Remember that the pilot's view of ground areas immediately in front of and adjacent to the sides of the aircraft is limited. The view to all areas behind the wings of the aircraft cannot be seen from the aircraft cockpit.

Do <u>not</u> operate a vehicle under any part of an aircraft and obey all airport rules and regulations pertaining to vehicle operations. **YIELD** to all moving aircraft. **Aircraft always have the right of way, whether under tow or under power.** THERE ARE <u>NO</u> EXCEPTIONS!
Do <u>not</u> proceed onto a runway or taxiway without ATCT approval. Contact the control tower at regular intervals when on the active runway for an extended period of time. These position reports help remind ATCT of your location and status.

Look in **BOTH** directions on the runway surface and in the final approach airspace before entering or crossing the runway. This is a best practice and assists with situational awareness. Proceed on the active runway in the direction opposite to the air traffic flow whenever possible and in an expeditious manner.

Jet Blast

Be aware of jet blast when positioned behind an aircraft. Jet intakes and exhaust outlets should be avoided at all times. At idle power settings there is enough suction at the intake to pick up a human within 15 to 20 foot proximity of the intake. Exhaust outlets emit jet blasts that can exceed 100 miles per hour at temperatures high enough to cause severe burns. Jet blast is quite capable of overturning any ground vehicle operating on the ramp.

Always assume engines can start up at any time. The red rotating beacon on an aircraft indicates that the engines are running or are about to be started.

The jetway will be pulled away and wing walkers present when the aircraft is ready to push back.

An aircraft just starting to move will generate considerably more jet blast than one that is at idle power. In other words, a vehicle may be in a safe position behind an aircraft at idle thrust, but may be in serious danger if breakaway thrust is applied. Other situations to be aware of include a turning aircraft and an aircraft using reverse thrust to back up.

Foreign Object Damage (FOD)

Foreign object damage occurs anytime an aircraft engine ingests an object that causes damage to its internal components. An object the size of a 1/16th inch pellet can cause substantial damage, possibly even death, depending upon the realm of operations the ingestion takes place. An aircraft that ingests an object during a take-off procedure may not have enough pavement left to stop safely. Several incidents have

occurred where the engine's fan blades severed critical hydraulic lines or damaged other engines.

FOD is everyone's responsibility!

If you see rocks or trash, whether it is paper, plastic, aluminum, nails, tools, etc., it is **your responsibility** to pick it up and dispose of it in a proper manner.

SURFACE MOVEMENT GUIDANCE AND CONTROL PLAN

All individuals requesting access to the movement area must read and be familiar with TPA's Surface Movement Guidance & Control System Plan (SMGCS). This Plan details aircraft & vehicle operations in visibility less than 1200' runway visual range (RVR) down to and including 600' RVR. There are specific requirements for Airport Operations, ARFF (Airport Rescue Fire Fighting), Police, and non-flight crew aircraft movements, among others. All MAT endorsed drivers must be familiar with these requirements.

Aircraft/Vehicle Repositioning During Low Visibility Conditions

Aircraft/Vehicles may be repositioned during low visibility operations. Any of the low visibility lighting or marked enhancements may be used to position or control aircraft repositioning at the discretion of the ATCT. The operator should state the aircraft's current location, planned new location, and desired route of taxi. The instructions of ATCT will be followed. Subsequent to initiating taxi, if the non-flight crew becomes unsure of its location or route of taxi, the non-flight crew will stop the aircraft and communicate with ATCT to verify their location and route of taxi. The aircraft will not resume taxi/movement without ATCT clearance. If communications fail, movement will be ceased clear of runway surfaces.

Participating non-flight crew and vehicle operators are required to have a copy of the TPA Low Visibility Taxi Routes Chart in the possession during low visibility operations. Further, air carriers will appropriately train affected personnel in low visibility procedures.

SMGCS PLAN ADVISORY

When notified by the Airport Operations Center (AOC) that low visibility operations are probable:

1. Air carriers will advise ramp and maintenance personnel.
2. Restrict all non-essential vehicle/non-flight crew aircraft movements not directly related to servicing or departing aircraft.

SMGCS PLAN IMPLEMENTATION

Once notified by the AOC that low visibility operations have been officially implemented, air carriers shall, in addition to the advisory notification procedures implement the following:

1. Ensure that trained personnel equipped with tug, tow bar, and the necessary equipment are available for tow-in/tow-out service.
2. Non-Flight Crew Aircraft Moving crews (if vital to the operations during low visibility conditions) will:
    a. Follow ATCT instructions utilizing the TPA Low Visibility Taxi Route Chart
    b. Advise ATCT when holding short of the ILS critical areas for the purpose of crossing the runway.
    c. Advise the maintenance hangar and/or gate operations control when approaching the respective target areas.
    d. Determine if the visibility is adequate to continue taxi to the gate and/or maintenance hangar without assistance, or determine if assistance is required.

SMGCS PLAN TERMINATION

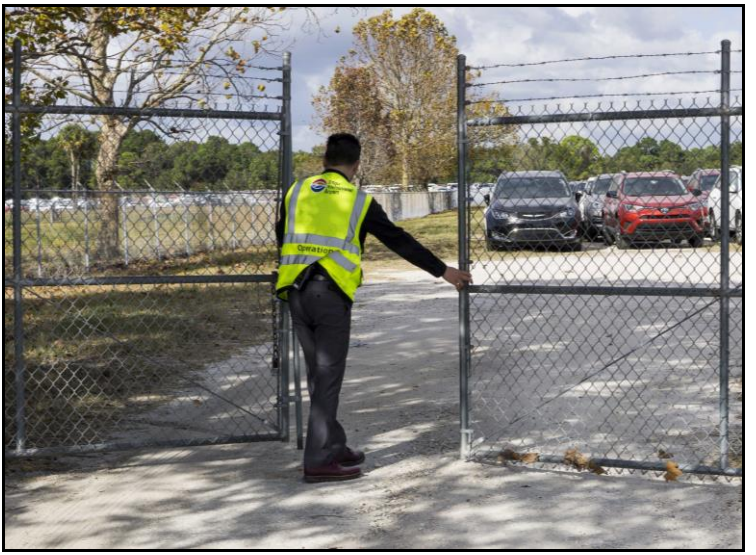
When notified by the Airport Operations Center that low visibility operations are terminated, Air Carriers will advise all affected personnel.

SECURITY

Pursuant to regulations set forth in 49 CFR Part 1542 Airport Security, the Aviation Authority has adopted and agrees to enforce the provisions outlined in its Airport Security Program. The Security Program provides for the safety of persons and property traveling in air transportation against acts of criminal violence and aircraft piracy. A copy of the program is maintained at the Airport Operations office of the Hillsborough County Aviation Authority.

It is everyone's responsibility to maintain security at all gates and doors leading to the Air Operations Area (AOA). When a gate or door is in continuous use, surveillance is required to prohibit unauthorized entry; when not in use, the door or gate is required to be locked.

If you see a gate left open, close it, and then report it immediately to the Airport Operations Center or Airport Police.



SUMMARY

The FAA continues to lead an industry wide effort to improve runway safety and prevent incursions through increased education, training, and awareness.

Movement areas include all areas under the control of ATCT, such are runways and taxiways.

Non-movement areas include ramp areas, service roads, and maintenance ramps.

Tampa has three main runways; 1L/19R, 1R/19L and 10/28.

Runway markings and runway lighting are white.

Taxiway markings are yellow and taxiway lighting is blue.

Do not cross the non-movement boundary marking, which consists of a single yellow dashed line next to a single yellow solid line, without receiving clearance from the ATCT.

Hold position markings and signs are installed at the edge of the runway's safety area and should be treated as a stop sign that require further clearance from the ATCT.

Aircraft **ALWAYS** have the right of way.

Know and use standard aviation phraseology and communication techniques when communicating with the ATCT.

Follow posted speed limits and traffic laws.

Beware of jet blast when positioned or transitioning behind an aircraft.

FOD is everyone's responsibility to pick up and dispose of in a proper manner.

Be familiar with TPA's SMGCS Plan.

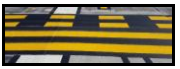
It is everyone's responsibility to maintain security at all gates and doors leading to the Air Operations Area.

AIRFIELD SIGNAGE, MARKINGS AND LIGHTING REFERENCE

Signage:

Runway Hold Position		ILS Hold Position	
Location Sign		Directional Sign	
Destination Sign			

Markings:

Runway Hold Position		ILS Hold Position	
Non-Movement Boundary		Surface Painted	
Taxiway Centerline		Runway Centerline	
Taxiway Intermediate Hold Position		Runway Edge Line	
Taxiway Edge (Dashed)		Taxiway Edge (Solid)	

Lighting:

Runway Edge		Taxiway Edge	
Elevated Runway Guard Lights (Wig Wags)		In-Pavement Runway Guard Lights	

Tampa International Radio Frequencies

Ground	121.7
Tower	119.5
Discrete	121.35

EMERGENCY CONTACTS

The following is a list of phone numbers to be used to report any emergency, suspicious activity, or abnormality. These numbers are monitored 24 hours per day.

The 1st notification for any event should be made to the AOC.

Airport Operations Center	**870-8770**
Airport Police	**870-8760**
Airfield Operations Duty Manager	**781-8212**
Terminal Operations Duty Manager	**380-5853**
FAA Tower CAB	**371-7747**
FAA TRACON	**878-2528**

Any suggestions for improving this guide should be directed to:

Christopher Giokas
Tampa International Airport
Operations Department
Manager, Airfield Operaitons
P.O. Box 22287
Tampa, FL 33622
(813) 676-4389
CGiokas@tampaairport.com

Level 1 – Initial Training Requirements

Initial Movement Area Training (MAT) Training Curriculum - Level 1

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____

(Name) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed prior to the initial performance of such duties. The curriculum for initial training must include the following areas:

- ☐ Review the most current copy of the TPA Movement Area Training Program for Ground Vehicle Operations booklet
- ☐ Review current airfield map
- ☐ Review the TPA Airport Certification Manual in its entirety
- ☐ Successfully complete required AAAE Digicast videos and associated tests
- ☐ Successfully complete airfield check ride process with Operations
- ☐ Complete computerized IET Movement Driver Training Course
- ☐ 139.303(c) (1) Airport familiarization, including airport marking, lighting, and signs system
- ☐ 139.303(c) (2) Procedures for access to, and operation in, movement areas and safety areas, as specified under 139.329
- ☐ 139.303(c) (3) Airport Communications, Noncomplying Conditions 139.343, and Airport Condition Reporting 139.339
- ☐ 139.303(c) (4) Duties required under the Airport Certification Manual and the requirements of this part
  - ➢ 139.305, 139.307, & 139.309 Paved, Unpaved, and Safety Areas
  - ➢ 139.311 Markings, Signs, & Lighting
  - ➢ 139.313 Snow and Ice Control
  - ➢ 139.323 & 139.331 Traffic and Wind Indicators and Obstructions Lighting
  - ➢ Airport Emergency Plan (AEP)
  - ➢ 139.335 Public Protection
- ☐ 139.303(c)(5) Additional subject areas as required:
  - ➢ 139.319 Aircraft rescue and firefighting: Operational requirements
  - ➢ 139.321 Handling and storing of hazardous substances and materials
  - ➢ 139.327 Self-inspection program
  - ➢ 139.337 Wildlife hazard management
- ☐ Complete airfield familiarization test, with a minimum score of 90%
- ☐ Complete airfield map test, with a minimum score of 80%

_____ _____

Trainee's Signature Airfield Operations MAT Endorser Signature

Level 1 – Recurrent Training Requirements

Recurrent Movement Area Training (MAT) Training Curriculum - Level 1

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____

(Name) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed at least once every 12 consecutive calendar months after successfully completing initial training. The curriculum for recurrent training must include the following areas:

- ☐ Successfully complete required AAAE Digicast videos and associated tests.
- ☐ 139.303(c) (1) Airport familiarization, including airport marking, lighting, and signs system.
- ☐ 139.303(c) (2) Procedures for access to, and operation in, movement areas and safety areas, as specified under 139.329.
- ☐ 139.303(c) (3) Airport Communications, Noncomplying Conditions 139.343, and Airport Condition Reporting 139.339
- ☐ 139.303(c) (4) Duties required under the Airport Certification Manual and the requirements of this part.
  - 139.305, 139.307, & 139.309 Paved, Unpaved, and Safety Areas
  - 139.311 Markings, Signs, & Lighting
  - 139.313 Snow and Ice Control
  - 139.323 & 139.331 Traffic and Wind Indicators and Obstructions Lighting
  - Airport Emergency Plan (AEP)
  - 139.335 Public Protection
- ☐ 139.303(c)(5) Additional subject areas as required under:
  - 139.319 Aircraft rescue and firefighting: Operational requirements
  - 139.321 Handling and storing of hazardous substances and materials
  - 139.327 Self-inspection program
  - 139.337 Wildlife hazard management
- ☐ Complete airfield familiarization test, with a minimum score of 90%.
- ☐ Complete airfield map test, with a minimum score of 80%.

_____ _____

Trainee's Signature Airfiled Operations MAT Endorser Signature

Level 2 – Initial Training Requirements

Initial Movement Area Training (MAT) Training Curriculum - Level 2

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____

(Name) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed prior to the initial performance of such duties. The curriculum for initial training must include the following areas:

- Perform airfield ride along with airfield operations
- Review the most current copy of the TPA Movement Area Training Program for Ground Vehicle Operations booklet
- Review current Airfield Map
- Review all applicable sections of the TPA Airport Certification Manual based on your work function
- Complete computerized IET Movement Driver Training Course
- Successfully complete required AAAE Digicast videos and associated tests
- Successfully complete airfield check ride process with Operations
- 139.303(c) (1) Airport familiarization, including airport marking, lighting, and signs system
- 139.303(c) (2) Procedures for access to, and operation in, movement areas and safety areas, as specified under 139.329
- 139.303(c) (3) Airport Communications, Noncomplying Conditions 139.343, and Airport Condition Reporting 139.339
- 139.303(c) (4) Duties required under the Airport Certification Manual and the requirements of this part
- Complete airfield familiarization test, with a minimum score of 90%
- Complete airfield map test, with a minimum score of 80%

_____ _____

Trainee's Signature Airfield Operations MAT Endorser Signature

Level 2 – Recurrent Training Requirements

Recurrent Movement Area Training (MAT) Training Curriculum - Level 2

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____

(Name) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed prior to the initial performance of such duties. The curriculum for initial training must include the following areas:

- ☐ Review the most current copy of the TPA Movement Area Training Program for Ground Vehicle Operations booklet
- ☐ Review current Airfield Map
- ☐ Review all applicable sections of the TPA Airport Certification Manual based on your work function
- ☐ Successfully complete required AAAE Digicast videos and associated tests
- ☐ 139.303(c) (1) Airport familiarization, including airport marking, lighting, and signs system
- ☐ 139.303(c) (2) Procedures for access to, and operation in, movement areas and safety areas, as specified under 139.329
- ☐ 139.303(c) (3) Airport Communications, Noncomplying Conditions 139.343, and Airport Condition Reporting 139.339
- ☐ 139.303(c) (4) Duties required under the Airport Certification Manual and the requirements of this part
- ☐ Complete airfield familiarization test, with a minimum score of 90%
- ☐ Complete airfield map test, with a minimum score of 80%

_____ _____

Trainee's Signature Airfield Operations MAT Endorser Signature

Level 3 – Initial Training Requirements

Initial Movement Area Training (MAT) Training Curriculum - Level 3

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____
(Employee Name/ MAT Badge Requestor) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed prior to the initial performance of such duties. The curriculum for initial training must include the following areas:

Employee/ MAT Badge Requestor: Please initial each box below indicating compliance/completion

- ☐ I affirm that I have a reviewed the most current copy of the TPA Movement Area Training Program for Ground Vehicle Operations booklet
- ☐ I affirm that I have a reviewed current TPA Airfield Map
- ☐ I have successfully completed the computerized IET Movement Driver Training Course
- ☐ I affirm that I have a current taxi/tow certificate issued by my employer that is valid through the expiration date of the badge requested, from an authority recognized program
- ☐ I agree that I will notify Airfield Operations prior to any operations within the movement area

_____ _____
Employee Signature Airline MAT Endorser Name (Printed)

_____ _____
Company Name Airline MAT Endorser Signature

Level 3 – Recurrent Training Requirements

Recurrent Movement Area Training (MAT) Training Curriculum - Level 3

In compliance with 139.303(c):

_____ completed annual airfield familiarization training _____

(Employee Name/ MAT Badge Requestor) (Date)

139.303(c): Train all persons who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part. This training must be completed prior to the initial performance of such duties. The curriculum for initial training must include the following areas:

Employee/ MAT Badge Requestor: Please initial each box below indicating compliance

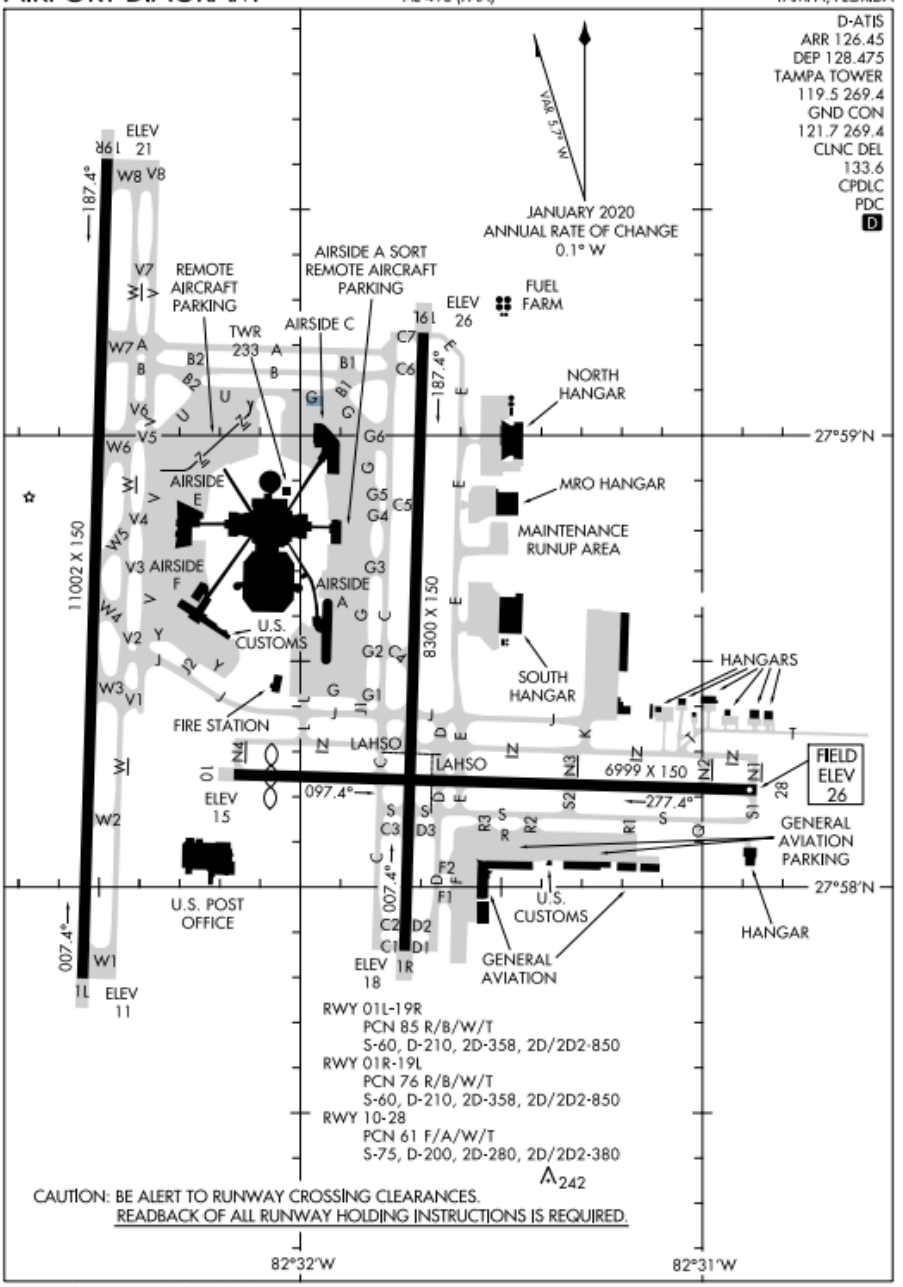
- ☐ I affirm that I have a reviewed the most current copy of the TPA Movement Area Training Program for Ground Vehicle Operations booklet
- ☐ I affirm that I have a reviewed current TPA Airfield Map
- ☐ I have successfully completed the computerized IET Movement Driver Training Course
- ☐ I affirm that I have a current taxi/tow certificate issued by my employer that is valid through the expiration date of the badge requested, from an authority recognized program
- ☐ I agree that I will notify Airfield Operations prior to any operations within the movement area

_____ _____

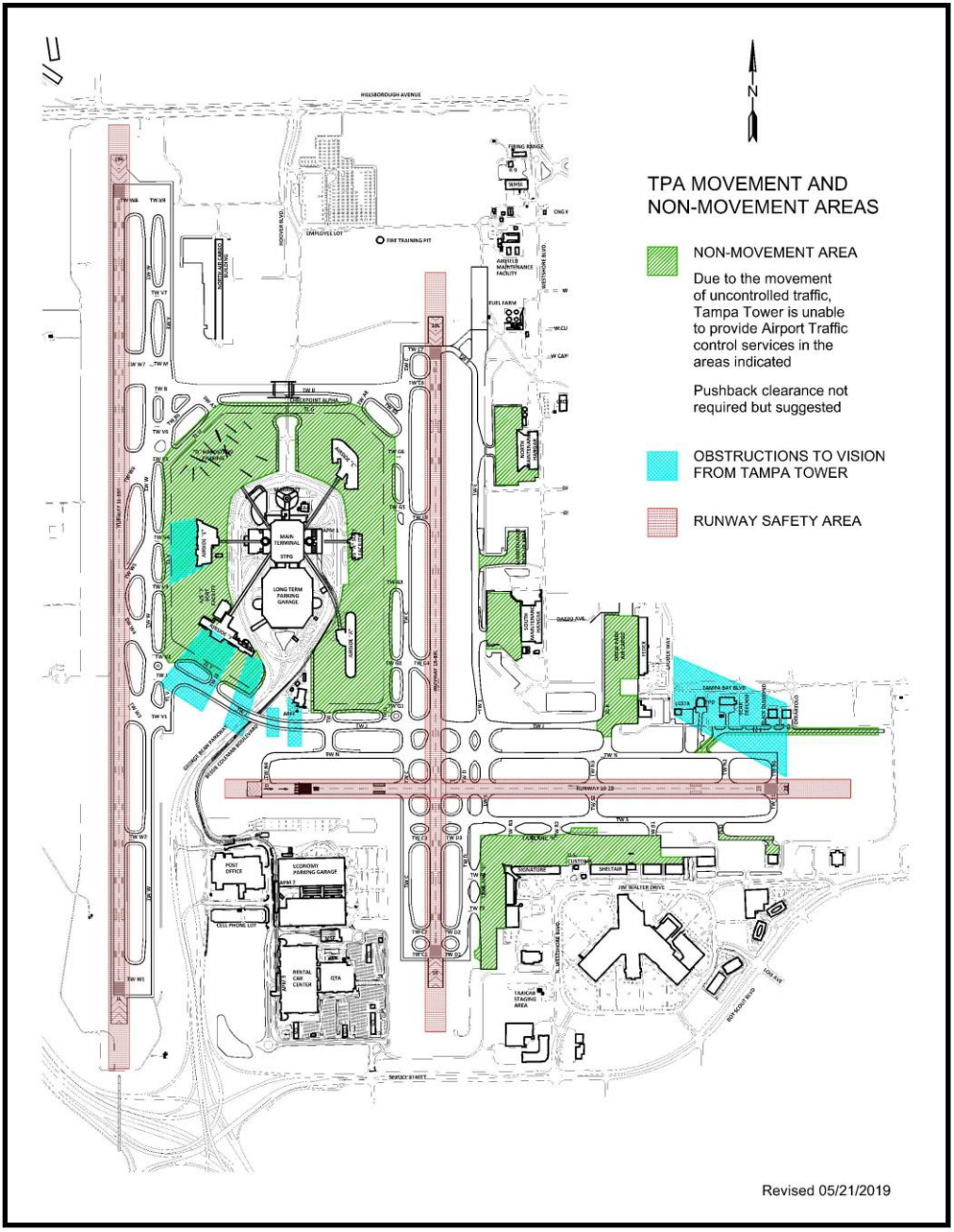
Employee Signature Airline MAT Endorser Name (Printed)

_____ _____

Company Name Airline MAT Endorser Signature



SE-3, 22 APR 2021 to 20 MAY 2021


TPA MOVEMENT AND
NON-MOVEMENT AREAS
NON-MOVEMENT AREA
Due to the movement of uncontrolled traffic, Tampa Tower is unable to provide Airport Traffic control services in the areas indicated
Pushback clearance not required but suggested
OBSTRUCTIONS TO VISION FROM TAMPA TOWER
RUNWAY SAFETY AREA
Revised 05/21/2019