



Ground Vehicle Driver Orientation Program



October 2011

PURPOSE

In an effort to enhance safety of ground vehicle operations at the Livermore Airport, a Ground Vehicle Driver Orientation Program has been developed. This orientation program is designed to assist authorized Airport tenants, tenant employees, tenant guest and others that have a need to operate vehicles on the Non-movement Areas of the Airport.

A separate training program is available for Airport Employees, Contractors and others that have a need to operate vehicles on the Airport Movement Area (AMA).

VEHICLE OPERATING REQUIREMENTS (NON-MOVEMENT AREAS)

To operate a vehicle on Airport Non-movement Areas, you must show proof of having reviewed the Ground Vehicle Driver Orientation Program. Upon reviewing this program in its entirety, the driver should be able to safely navigate on the airfield and not conflict with flight operations within the Aircraft Movement Areas.

New Tenants - should receive a copy of the Ground Vehicle Driver Orientation Program and sign that they have reviewed and understand the procedures for driving in the Non-movement Areas at the Livermore Airport.

Existing Tenants – All existing tenants will obtain the Ground Vehicle Driver Orientation Program via mail or email, and will be required to confirm receipt to Airport Administration.

Visitors/Guests/Contractors – All visitors, guest and contractors should either be escorted by an authorized driver or have obtained and reviewed the Ground Vehicle Driver Orientation Program.

Escorting Procedures

It is important that all visitors to the Airport be escorted onto the Airport Movement Area (AMA), unless they have acknowledged and signed off on, the Ground Vehicle Drivers Orientation Program. The following escorting procedures should be observed:

- A) Brief the driver on what to expect before you begin escorting them onto the AMA. When you pull through the gate, instruct the follower to stay directly behind you and then stop and wait for the gate to fully close.
- B) You are responsible for ensuring that no other vehicles tailgate, and that the gate closes securely. Instruct the person being escorted to follow you closely, to your destination.

C) You may only escort up to two vehicles at one time. If you have additional vehicles to escort onto the AMA, you will need to either make additional trips or have more than one escort vehicle.

D) Make sure you observe the speed limits set forth by the Airport Rules and Regulations at all times. Do not leave the person being escorted behind. You should maintain no more than a 20 foot distance between your vehicle and the one you are escorting. Remember, you are familiar with the AMA, but the person you are escorting, is not.

E) At all times monitor the vehicle you are escorting, especially in the close proximity of moving aircraft.

F) When escorting a vehicle out of the Airport and the AMA, the escorted vehicle must merge in front of you so that you are the last vehicle through the gate. If you are staying on the AMA make sure the gate closes behind the escorted vehicle as they exit.

**REMEMBER, YOU ARE RESPONSIBLE FOR THE PERSON
AND VEHICLE YOU ESCORT ONTO THE AOA.**

YOU MUST REMAIN WITH YOUR ESCORTEE AT ALL TIMES WHILE ON THE AOA.

- IMPORTANT -

As an authorized driver within the Non-movement Areas you now have the responsibility to properly escort or orient your visitors. See Livermore Municipal Code below:

11.08.050 Conduct of business – Restrictions.

D. Any person accessing or using the airport shall be responsible for their actions and all actions of any of their invitees.

VEHICLE RULES AND REGULATIONS

The following vehicle rules and regulations shall be followed by all vehicles operating on the Livermore Airport premises:

11.08.120 Motor vehicle regulations.

- A. Any person operating a vehicle on the airport must have a valid state vehicle operator's license and evidence of insurance as required by the city. All vehicles shall meet proper state licensing, registration, and inspection requirements.
- B. **“Vehicle tailgating”** is prohibited at all access gates. Each tenant shall utilize his/her assigned gate access card or remote control transmitter to access the airport premises.
- C. No person shall operate a vehicle in a reckless or negligent manner, or in excess of the posted or designated speed limits, other than emergency vehicles. The speed limit in aircraft parking and hangar areas is 10 miles per hour.
- D. Aircraft and pedestrians have the right-of-way over vehicular traffic at all times and in all locations. Vehicle operators shall observe the directions of traffic signs and any instructions posted by the city.
- E. All vehicles shall pass to the rear of taxiing aircraft.
- F. Vehicles are not permitted to enter the movement areas unless an appropriate clearance has been issued by FAA air traffic control, or city personnel are escorting the vehicle.
- G. One vehicle may be parked directly on the tie-down space when the aircraft is being used, and only on the space leased by the vehicle owner, for a period not to exceed 30 consecutive days.
- H. Vehicles shall not be parked or stopped in such a manner so as to obstruct a parking lot lane, driveway, roadway, walkway, crosswalk, fire lane, runway, taxiway, taxilane, and/or obstruct access to hangars, parked aircraft and/or parked vehicles. In order to keep the taxilanes clear, tenants are strongly encouraged to always park their vehicles inside the hangar while flying.
- I. Parking is permitted in designated or assigned areas only. Extended vehicle parking is allowed only as approved in advance by the airport manager.
- J. Private vehicles shall not be cleaned and/or maintained anywhere on the airport, except for minor repairs that are necessary to remove such vehicle(s) from the airport. Vehicles operated by commercial operators or tenants shall be cleaned and/or maintained in areas designated by the airport manager. (Ord. 1905 § 1, 2010)

VEHICLE VIOLATIONS AND CONSEQUENCES

11.08.170 Violations and enforcement.

A. Any person who violates any provision of these rules and regulations, or any provision of an ordinance of the city pertaining to the use of the airport, shall be subject to all legal, equitable, statutory, and contractual rights and remedies available to the city, including termination of the lease and/or commercial aviation permit. Said person shall pay all costs in connection therewith, including attorney's fees.

DRIVING ON THE NON-MOVEMENT AREAS

Non-movement areas include hangar access taxilanes, aprons, and other areas **not** under ATCT control. Anyone authorized to operate a motorized vehicle on the airside may do so on the non-movement areas without being in radio contact with the ATCT. These areas are depicted in **Exhibit A** and include:

- Vehicle service roads
- Aircraft parking aprons
- Hangar access areas

Operating within the ramp areas requires the vehicle driver to exercise extreme caution as aircraft are always moving. Also, aircraft passengers may be walking from an aircraft to the gate, and because noise levels are high, they may not hear an approaching vehicle.

Vehicle drivers should:

- Watch cockpit blind spots—pilots typically cannot see behind or below the aircraft.
- Avoid jet blast or prop wash, which can blow debris.
- Be aware and avoid moving propellers that may cause damage, injury, or death.
- Be aware of other vehicle movements—you may not hear them approaching due to aircraft engine noise.
- Yield to aircraft, passengers, and emergency vehicles, which ALWAYS have the right-of-way on any portion of the airport.
- When traveling on the apron, always use designated vehicle service roads.
- Never drive between safety cones.

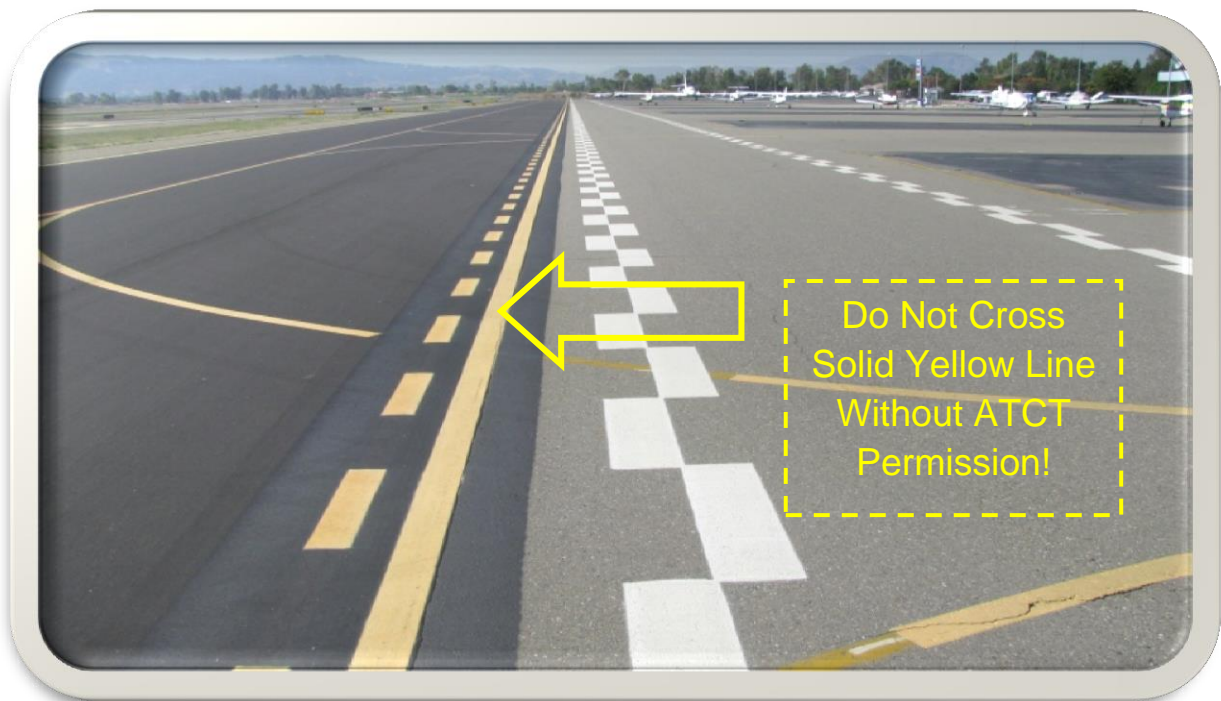
AIRPORT PAVEMENT MARKINGS

Vehicle Roadway Markings

The vehicle roadway markings are used when necessary to define a pathway for vehicle operations on or crossing areas that are also intended for aircraft. These markings consist of a white solid line to delineate each edge of the roadway and a dashed line to separate lanes within the edges of the roadway

Zipper Lane - In lieu of the solid lines, zipper markings may be used to delineate the edges of the vehicle roadway. Always follow the speed limit of 10 MPH and exercise caution.

Non-Movement Area Boundary Markings - consist of **two yellow lines** (one solid and one dashed). The solid line is located on the non-movement area side, while the dashed yellow line is located on the movement area side. A vehicle operator is not to cross from the solid-line side without first contacting the ATCT and obtaining a clearance.



- CAUTION -

You must have ATCT clearance to cross this "Solid Yellow" line with "Yellow Dashed" line behind it, if not, turn around immediately!

Runway Holding Position Markings are located across each taxiway that leads directly onto a runway. These markings are made up of **two solid lines** and **two broken yellow lines** and denote runway holding position markings. These markings are always co-located with a Runway Holding Position Sign. A vehicle operator must never cross from the solid-line side of the marking without first obtaining ATCT clearance.

The Air Traffic Control Tower considers this line the beginning of the runway environment. If instructed to “hold short of the runway” and any part of the vehicle/airplane crosses this line, it is a runway incursion.

- WARNING -

If you have made it this far without ATCT clearance **STOP IMMEDIATELY!**

Active Runway Ahead!

Turn around, drive with caution across the taxiways to the ramp and wait for airport staff to arrive!



Note: An “Airport Signs and Marking Guide” is attached as Exhibit B.

To complete and submit electronically, click the link below

[Livermore Airport Ground Vehicle Movement Orientation Program](#)

Name: _____

Tenant/Guest/Contractor: _____

Hangar Number: _____

Company Name: _____

Driver's License State and Number: _____

I agree to abide by all the rules and regulations prescribed for the operations of a vehicle within the
Airport Non – movement Area.

Name: _____

Date: _____

Signature: _____

PERMITTED VEHICLE OPERATING AREAS

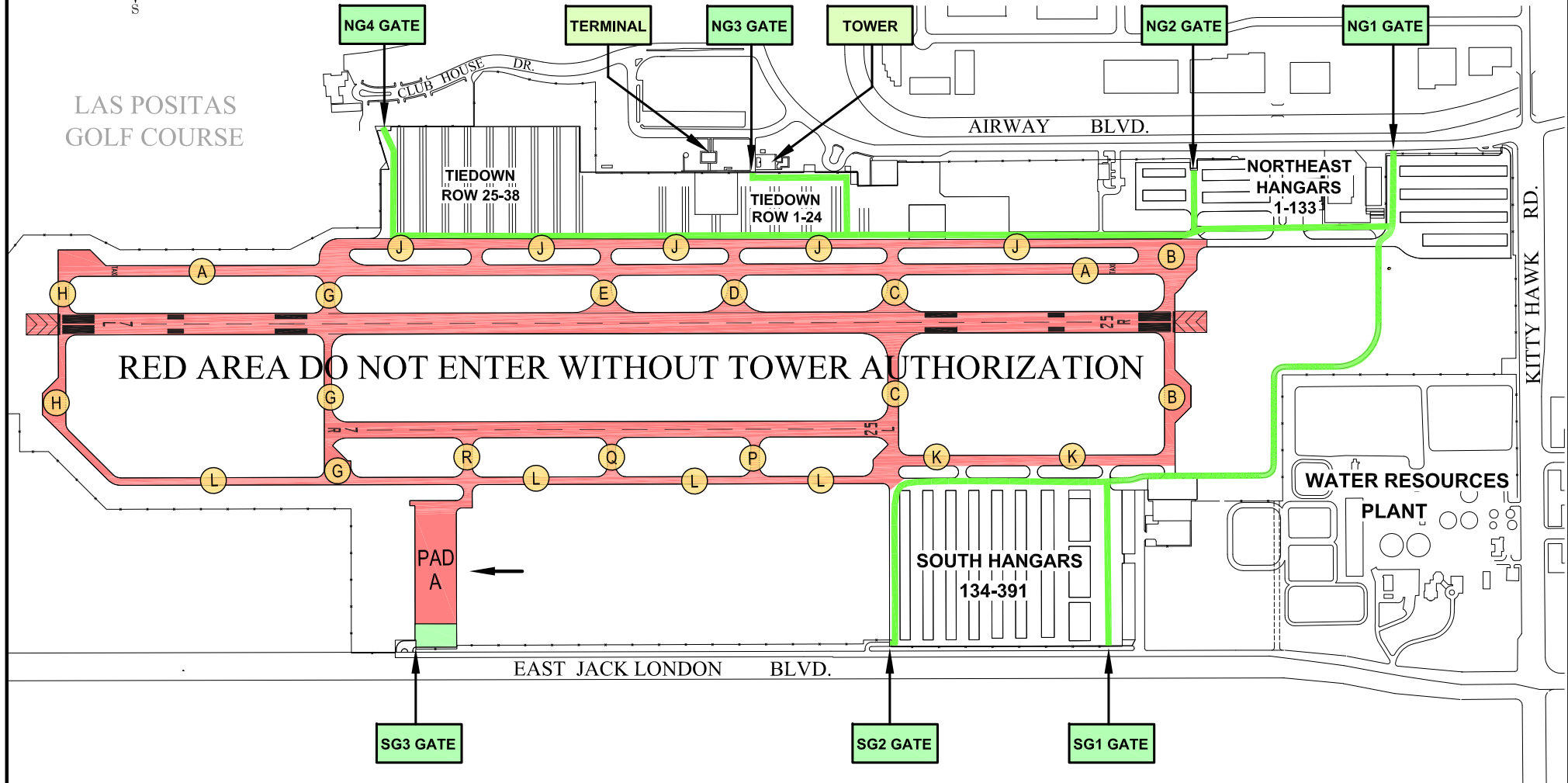
Location

Non-movement Areas

Exhibit A



LAS POSITAS GOLF COURSE



- AIRPORT MOVEMENT AREAS – AIR TRAFFIC CONTROL TOWER COMMUNICATION REQUIRED
- VEHICLE ACCESS ROUTES
- ALL VEHICLES YIELD TO AIRCRAFT
- WATCH FOR MOVING AIRCRAFT PROPELLERS

AIRPORT COMMUNICATION VHF FREQUENCIES	
TOWER/CTAF	118.1 MHz
GROUND	121.6 MHz
UNICOM	122.95 MHz













LIVERMORE MUNICIPAL AIRPORT VEHICLE ACCESS GUIDE



Pilot Guide to Airport Signs and Markings







Airport Signs — Action or Purpose


- 4-22** TWY/RWY HOLD POSITION: Hold Short of Runway on Taxiway  RUNWAY BOUNDARY: Exit Boundary of Rwy Protected Areas
- Also ... RWY/RWY HOLD POSITION: Hold Short of Intersecting Runway  ILS CRITICAL AREA BOUNDARY: Exit Boundary of ILS Critical Area
- 8-APCH** RWY APCH HOLD POSITION: Hold Short for Acft on Approach  RUNWAY EXIT: Defines Direction & Designation of Exit Twy from Rwy
- ILS** ILS HOLD POSITION: Hold Short of ILS Critical Area
 Also ... TWY DIRECTION: Defines Direction & Designation of Intersecting Taxiway(s)
-  NO ENTRY: Identifies Paved Areas Where Aircraft Entry is Prohibited
-  TAXIWAY LOCATION: Identifies Taxiway on Which Aircraft is Located
-  RUNWAY LOCATION: Identifies Runway on Which Aircraft is Located
-  OUTBOUND DESTINATION: Defines Directions to Take-Off Runways
-  INBOUND DESTINATION: Defines Directions for Arriving Aircraft
-  TAXIWAY ENDING MARKER: Identifies Twy Does Not Continue
- 4** RUNWAY DISTANCE REMAINING: Identifies Runway Length Remaining
 DIRECTION SIGN ARRAY: Identifies Location in conjunction with Multiple Intersecting Taxiways

Read back instructions to enter a runway, "hold short," or "position and hold." Read back ENTIRE instruction!


If in Doubt, **ASK!**


ATCT Light Gun Signals

Color and Type of Signal	Aircraft on the Ground
STEADY GREEN 	Cleared for Takeoff
FLASHING GREEN 	Cleared to Taxi
STEADY RED 	STOP
FLASHING RED 	Taxi Clear of the Runway in Use
FLASHING WHITE 	Return to Starting Point on Airport
ALTERNATING RED/GREEN 	Exercise Extreme Caution



Elevated Guard Lights Hold Short





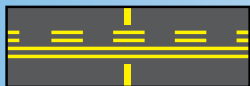
In-Pavement Guard Lights Hold Short

Help Prevent Runway Incursions!

Exhibit B

Pilot Guide to Airport Signs and Markings

Airport Markings

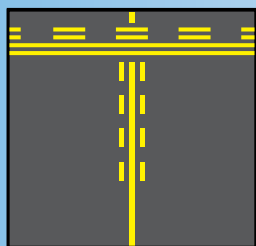


HOLDING POSITION:
Hold Short of Intersecting Rwy
Also Land and Hold Short Marking

ATC permission is ALWAYS required to cross from the solid side to the dashed side



MOVEMENT AREA BOUNDARY:
Defines Boundary of Movement Area and Non-Movement Area



HOLDING POSITION with ENHANCED TAXIWAY CENTERLINE



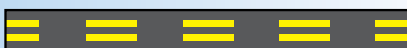
TAXIWAY/TAXIWAY HOLDING POSITION: Hold Short of Intersecting Taxiway When Directed by ATC



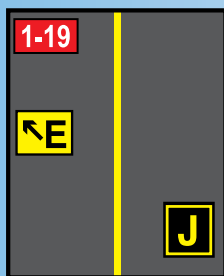
TAXIWAY EDGE: Defines Edge of Usable Full Strength Taxiway Pavement. Adjoining Pavement NOT Usable



ILS CRITICAL AREA: Hold Short During IMC Conditions



DASHED TAXIWAY EDGE: Defines Edge Taxiway Where Adjoining Pavement or Apron IS Available for Taxi



SURFACE PAINTED HOLDING POSITION: Hold Short of Intersecting Runway on Twy

SURFACE PAINTED TAXIWAY DIRECTION: Direction & Designation of Intersecting Twy

SURFACE PAINTED TAXIWAY LOCATION: Identifies Twy on Which Aircraft is Located

Help Prevent Runway Incursions!

References: Aeronautical Information Manual (AIM), AC 90-67 Light Signals from the Control Tower for Ground Vehicles, Equipment, and Personnel, AC 150/5340-1 Standards for Airport Markings, and AC 150/5340-18 Standards for Airport Sign Systems.



A



B



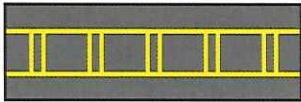
C



D



E



F



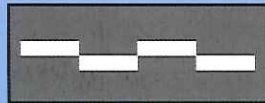
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H



J



K



L



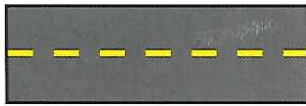
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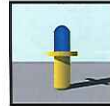
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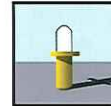
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Q



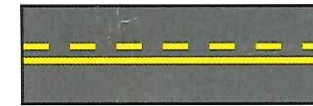
R



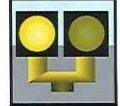
S



T



V



W

Airfield Signs & Markings Assessment

Write the correct letter in each blank matching the description. Answers and explanations are on the reverse.

- ___ This sign identifies the runway on which your aircraft is currently located.
- ___ This sign indicates thousands of feet remaining to the end of the runway.
- ___ This marking means the runway or taxiway is closed.
- ___ These lights outline the edges of a runway.
- ___ This array is located at the intersection of two runways and a taxiway.
- ___ This marking indicates where an aircraft is to hold before entering a runway.
- ___ An aircraft that taxis past this sign may interfere with the navigational landing aid signals an approaching aircraft is using.
- ___ Stopping behind this marking will ensure wingtip clearance for aircraft on an intersecting taxiway.
- ___ This painted marking indicates the edge of the ILS critical area. Ground control may ask you to hold short at this line if an aircraft is using the ILS.
- ___ This sign alerts you that you are approaching a runway and, on a taxiway, is accompanied by a runway holding position marking.
- ___ This sign indicates an area prohibited to aircraft.
- ___ Taxiing past this sign may interfere with operations on the runway even though it is not located at a runway intersection.
- ___ These lights outline the edges of a taxiway.
- ___ These lights are sometimes installed on each side of a taxiway prior to its intersection with a runway.
- ___ This sign identifies the taxiway you're currently on.
- ___ This marking indicates the edge of a path for vehicle traffic on areas also intended for aircraft.
- ___ This array indicates that you are approaching the intersection of two taxiways.
- ___ This sign indicates the direction to a destination runway.
- ___ This sign indicates an exit from a runway.
- ___ This painted marking indicates the line between a movement area and a non-movement area on the airport.



Air Traffic Organization-Safety

See our website: <http://www.faa.gov/runwaysafety/>

1. N **Runway Location Sign** These signs are typically installed where the proximity of two runways could cause confusion.
2. T **Runway Distance Remaining Sign** The example sign shows 8,000 feet remaining.
3. M **Closed Runway and Taxiway Marking** This marking may be painted or raised and lighted. It is usually used only for permanent or long-term closure; runways may be temporarily closed by NOTAM.
4. S **Runway Edge Lights** These are used to outline the edges of runways during periods of darkness or restricted visibility conditions.
5. G When several runways and taxiways intersect, the holding position sign indicates the designation and approximate direction of each surface.
6. B **Runway Holding Position Markings** The dashed lines face the runway, while the solid lines face the taxiway. Stop prior to crossing the first solid line of the runway holding position marking.
7. A **ILS Critical Area Holding Position Sign** When the ILS is in use, ATC may ask you to hold short of this marking. Otherwise you may cross it.
8. Q **Taxiway Holding Position Markings** Stop prior to crossing this line if instructed to hold short of the taxiway.
9. F **ILS Holding Position Markings** You may cross this marking unless ground control instructs you to hold short.
10. E **Runway Holding Position Sign** This sign will be placed within 10 feet of the Runway Holding Position Marking. The numbers on the sign are arranged to correspond with their respective runway thresholds.
11. J **No Entry Sign** This is usually placed at the end of a one-way taxiway or at the intersection of a movement surface and a roadway.
12. C **Runway Approach Area Holding Position Sign** Found on taxiways that cross the approach or departure area of a runway.
13. R **Taxiway Edge Lights** Blue reflectors may be used instead if the taxiway abuts other usable pavement.
14. W **Runway Guard Lights** These lights are intended to alert a pilot of a runway/taxiway intersection and are located on either side of the holding position marking.
15. D **Taxiway Location Sign** This is frequently co-located with an array of direction or hold location signs.
16. K **Vehicle Roadway Markings** "Zipper Stripes" mark areas intended for vehicle traffic. Solid white stripes may also be used to define vehicle roadways located on an aircraft apron area.
17. H Signs are arranged left to right, starting with the first taxiway on the pilot's left and proceeding clockwise around the intersection. In this case, taxiway A intersects the perpendicular taxiway C.
18. L **Destination Sign** Separate destinations in the same direction are separated by a dot. Words such as Ramp, Cargo, Mil (Military) and Term (Terminal) are often seen on these.
19. P **Runway Exit Direction Sign** These signs are located just prior to the exit, on the same side of the runway.
20. V **Nonmovement Area Boundary Markings** The dashed line faces the movement area. Pilots must contact ground control for clearance before entering the movement area. However, this marking is an optional aid and may not appear at every movement area border.