



Airfield Familiarization

Access Waiver Course

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Introduction:

The Minden-Tahoe Airport (MEV) leadership recognizes the need to ensure and promote safety in all aspects of local airport operations. This course is provided to outline the safety practices, rules, and regulations outlined by both the Federal Aviation Administration (FAA) and local policy. Our objective is to provide the attendee with knowledge and understanding of federal and local aviation procedures that will allow them to operate safely on the airport.

This course is not intended to provide comprehensive coverage of everything there is to know about airport safety. Rather, it focuses on specific areas that are most important, as well as containing additional information and a chance for you to test your overall comprehension with a quiz. Each section identifies safety measures and information that will help you maintain situational awareness and act safely while on the airport.



Airport Familiarization: Airport Access

Access to movement and non-movement areas will be determined by airport management. There are two levels of access that can be granted for people wishing to access the airport:

Gate Access:



Gate access is permitted for those who have hangars, tie-downs, airport tenants and their employees. Anyone who has been given a gate key by airport management is considered to have gate access.

Gate access is limited to non-movement areas only, with a few exceptions covered later in this guide. This access does not have an expiration date and is valid as long as the individual has a gate key.

Access Waiver:

An access waiver is granted for those individuals who require access to movement areas. These are generally reserved for Airport Operations, maintenance, and contractors. To be granted an access waiver the individual will need to read this handbook, complete the exam, and be issued the access waiver. The waiver is specific to the individual (non-transferable) and is valid for 24 months from the date of issue.



Airport Familiarization: Movement and Non-Movement Areas

The Minden-Tahoe Airport has two primary surface areas that are categorized by the type of activities that occur in these locations. Each area has specific safety considerations that need to be recognized while operating in these locations. The two surface areas are:

Non-movement Areas



These areas consist of the ramp, apron, hangar and staging areas. Special attention should be taken to watch out for foot traffic, aircraft, and other obstacles that could be located on the airport.

Movement Areas

These areas are made up of runways and taxiways. Movement areas pose dangers such as runway incursions and other collision hazards. Taxiing aircraft may not have the best visibility while aircraft arriving and departing the runway are often traveling at very high speeds.



Airport Familiarization: Runways and RSA

Runways can be identified as having white numbers on each end, centerline stripes down the middle and may have white lines along the edges. The runway number represents the magnetic heading of the runway in a 360-degree compass:

Runway 16 = 160 degrees

Runway 34 = 340 degrees

It is imperative to know which runway you are on to ensure you maintain situational awareness. In addition, the runways will have different markings at the thresholds (beginning and end of the runway) depending on any instrument approaches that may be used.

Below are the dimensions of each runway and their markings:

Runway 34-16

7399 FT x 100 FT

Has eight (8) long/skinny white threshold markings at the beginning of both ends the runway with two (2) big white bars about 1000 feet from the end of the runway.

Runway 34-16

5299 FT x 75 FT

Has only the standard runway number and centerline stripes.

Runway 30G

2050 FT x 60 FT

Dirt runway with orange/white panels at the approach end of the runway.



Runway 16-34



Runway 12-30

Runway Safe Area (Hold Short Marking)

A Runway Safety Area (RSA) is the area surrounding a runway and is measured from the runway ends and centerline. This protected area that needs to be clear for arriving and departing aircraft in the event the aircraft experiences an emergency (i.e. landing short, veering off the runway, or overshooting the runway). The RSA can be identified by a hold line, also known as a holding position marking, which is painted in yellow on taxiway surfaces and collocated with a holding position sign. The holding position sign has a red background with white characters.



Runway safety area dimensions vary depending on the size of aircraft that can utilize the runway. Each runway at Minden-Tahoe Airport has a different RSA dimension:

RUNWAY	FROM CENTERLINE	FROM END OF RWY
16-34	250 FT	1,000 FT
12-30	120 FT	240 FT
30G	120 FT	240 FT

Example of the Runway Safe Area:

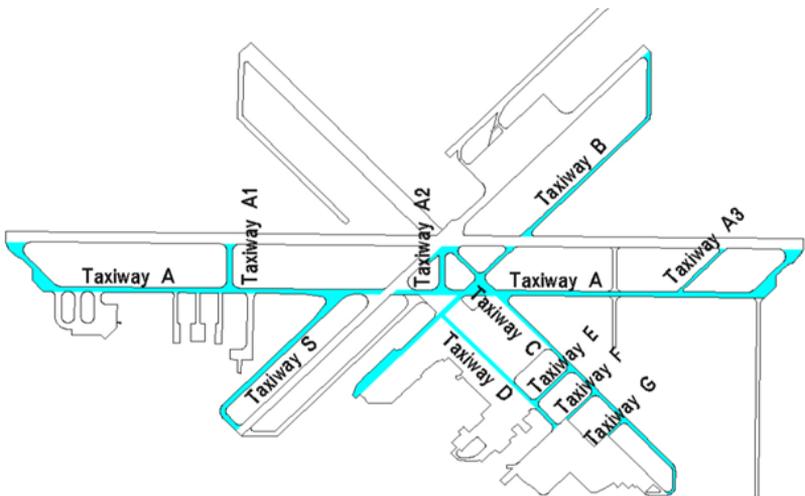


Airport Familiarization: Taxiways

Taxiways are used by aircraft to travel between the runways and the ramps areas. There are multiple taxiways here at Minden-Tahoe Airport and are identified by solid yellow center stripes on the pavement and alphabetic or alphanumeric identifiers.



Please reference the below diagram for the taxiway layout at Minden-Tahoe Airport.

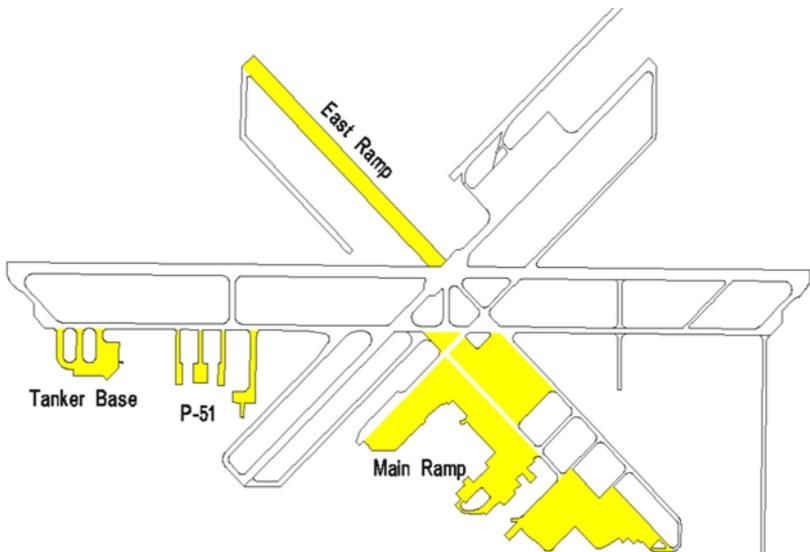


Airport Familiarization: Ramp Areas

Ramp areas are used primarily for the parking of aircraft and unloading of passengers. At Minden-Tahoe Airport has four (4) ramp areas:

- The main ramp
- East ramp
- P-51
- Tanker base.

Please reference the map below:



Ramps are often the busiest locations on the airport. For this reason, the ramp areas pose special challenges and safety considerations. With the parked aircraft, foot traffic, and other activities that may be occurring driving on the ramp requires undivided attention. While driving near taxing aircraft there is the potential for lack of visibility from the airplane's cockpit and/or the pilot's attention could be split between checklist and other before or after landing items.

Aircraft always have the right of way over all other traffic on the airport.

Always anticipate that an aircraft can start up at any moment. Rotating propellers, even at low RPMs, can cause serious injury. Always remain clear of a propeller's arc of rotation.

A jet engine's intake and exhaust are both dangerous. While at idle, most jet engines produce enough suction at the intake to pick up and ingest a human. The exhaust produces a jet blast that can exceed 100 mph and be hot enough to cause severe burns.



Airport Familiarization: Signs and Markings

The FAA has published regulations pertaining to airport signs and markings. Below are signs and markings that are specific to the Minden-Tahoe Airport:

Runway Safety Area boundary



The runway safety area boundary (also referred to as the hold short line) designates the entrance to a runway. It is identified by four (4) yellow lines of which two (2) are solid and two (2) are striped. If approaching from the striped side, you are currently on the runway and about to exit. If you approach the solid side, you are about to enter the runway.

This boundary will be accompanied by a red sign with white letters identifying the runway you are about to enter. Prior to crossing the boundary, you need to visually clear both ends of the runway to ensure no aircraft are approaching to land or about to depart and make a radio call on the Common Traffic Advisory Frequency (CTAF).

Runway Edge Lights

Runway edges are lined with lights used by aircraft during periods of darkness or reduced visibility. Runway Lights are white in color .



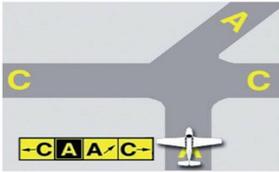
On some runways the last 2,000 feet could be yellow to signify to pilots the end of the usable runway.

Taxiway Location Signs



To identify which taxiway you are currently on look for a black square with yellow letter.

Taxiway Guidance Signs



These signs are used to provide guidance to various taxiways. In the example above, the aircraft is currently located on taxiway A (as indicated by the black square and yellow “A”) and arrows indicating the direction to the respective taxiway.

Taxiway Guidance Signs



These signs are used to provide directional guidance to a specific runway.

Airport information



Provides information or location of various services located on the airport.

Taxiway Edge Reflectors/Lights



Outlines the edge of a taxiway during periods of darkness or low visibility. Taxiway lights/reflectors are blue in color.

Airport Procedures: Non-Towered Airports

There are two (2) major types of airports, towered and non-towered. Minden-Tahoe Airport is non-towered and relies on pilots to provide updates to their position and intentions on the Common Traffic Advisory Frequency (CTAF). At a non-towered airport, you do not need controller permission before entering a runway or taxiway. Please review the best practices outlined below:

STOP, LOOK, and LISTEN

Before entering any runway, ensure that you come to a complete stop and look for aircraft that could be departing or arriving. Make sure that you look beyond the runway for aircraft that are still airborne and about to land. You should listen for aircraft by having the windows rolled down, or partially down if weather will not allow, to hear aircraft.



Utilize the Radio



Alert others when you are about to enter or cross a runway by always making an announcement on the radio before you enter. Tune the radio to the CTAF frequency and be specific with your location and intentions.

Example Radio Call:

“Minden traffic. one vehicle crossing runway 34 at taxiway Bravo traveling towards glider staging. Minden traffic”

AIRCRAFT ALWAYS HAVE THE RIGHT-OF-WAY



Always yield to aircraft on both runways and taxiways. If an aircraft is headed toward you on the same taxiway, move out of the aircraft’s way and provide them with plenty of room to pass. If an aircraft is about to land on a runway that you need

to cross, stop before the hold-short marker and continue to wait until the aircraft landed and taxied off of the runway.

BE VISIBLE

If your vehicle has a rotating beacon, be sure to turn it on anytime you are on the airport surface. Turn on headlights as well, being careful not to blind any pilots in the area. At a minimum, vehicles granted an access waiver will have an orange/white checkered flag during daylight hours and a rotating beacon during night hours or periods of reduced visibility.

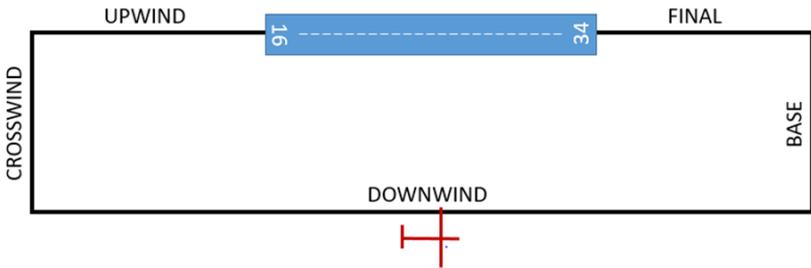


Airport Procedures: Aircraft Traffic Pattern

Aircraft approaching a runway for landing usually follow a standard landing pattern. Most runways are positioned so planes will take off and land into the wind. In most cases, the pattern is a rectangular box with each segment or “leg” having a specific name: *Upwind*, *Crosswind*, *Downwind*, *Base*, *Final*.

Pilots will announce over the CTAF where they are in relation to this pattern. A standard radio call from a pilot will sound similar to:

"Minden Traffic. Cessna 12345 is left downwind, runway 34. Minden Traffic"



RUNWAY	PATTERN (POWER)
16	RIGHT
34	LEFT
12	RIGHT
30	LEFT
30G	LEFT

Typically, pilot making all turns to the left; however, in a few cases, airports will use a right traffic pattern. Don't assume all aircraft will always be flying in the standard pattern - it is not required, only recommended - so keep a visual lookout in the sky in case a pilot decides to fly a 'straight in' approach

and doesn't enter the standard traffic pattern. Similarly, if a pilot announces "short final", expect that aircraft's landing to be imminent.

Extra vigilance is essential at non-towered airports. While there may be CTAF or UNICOM frequencies available, pilots are not required to communicate or announce their position in the traffic pattern or on the surface. As a result, a driver can be lulled into complacency because the airport is not very busy. Nevertheless, always remain alert for the unexpected, even when aircraft traffic levels are light.

Another factor involves the runway angle or slope, which makes it difficult or impossible to see the entire length of the runway. As a result, an aircraft can suddenly appear on a runway when you are crossing. Generally, it is good practice to cross runways at their ends. If one is available, a perimeter road or taxiway is the recommended route for crossing a runway at a non-towered airfield.



Airport Procedures: Radio Procedures

Properly using a radio is imperative for ensuring both your safety and the safety of aircraft operating around the airport. There are four (4) essential parts to every radio call you will make. they are:

1. Who you are talking to
2. Who you are
3. Where you are
4. What you are wanting to do.

Here is an example of how these elements make up a radio call:

"Minden traffic, Ops 1 is entering runway 34 for a full length inspection exiting at Alpha 1, Minden Traffic"

Who you are talking to *Who you are* *Where you are* *What you want to do*

When utilizing the radio, please consider the following best practices:

Adjust the volume for the environment

A radio will not serve you any good if you can't hear it. Make sure that you adjust the volume so you will be able to easily hear any pilots who are making their radio calls. One way to check the volume is to turn the squelch down so the radio.



makes the “hissing” sound. Once you have adjusted the volume, you can turn the squelch back up.

Think about what you are going to say-Then say it

Take a moment to think and rehearse what you are going to say before you broadcast over the radio. Filler words like “umm” and/or long pauses can tie up the radio frequency and prevent others from broadcasting their important information or intentions.



Listen, Then Speak



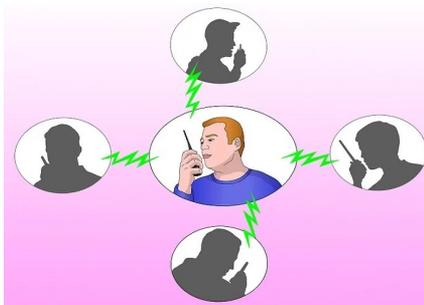
Before jumping on the radio to make a call, listen for a few seconds to ensure that you are not going to interrupt an important conversation. Generally, the CTAF frequency will only be used for position reports, but occasionally pilots will talk to each other to ensure they are not in danger of colliding.

Key up – Then talk

When you hit the push to talk (PTT) key on the radio, let there be a 1 or 2 second pause before you begin talking into the radio. If you fail to do this there is a chance the beginning of your transmission could be cut off



LISTEN!!



Once you have made your call on the CTAF listen for a moment to ensure that nobody is calling you back requesting more information or updates. If a pilot is unsure about where you are or what you are doing, they may reach out to you and

ask for clarification. Make sure that you remain available to clear up any potential misunderstandings.

Radio Terminology

Aviation utilizes specific phraseology to standardize radio communications. Familiarize yourself with these common terms outlined below:

Acknowledge - Let me know that you have received and understood this message.

Advise Intentions - Tell me what you plan to do.

Affirmative - Yes.

Confirm - Is that correct?

Correction - An error has been made in the transmission and the correct version follows.

Final - Commonly used to mean that an aircraft is on the final approach course or is aligned with a landing area.

Go Ahead - Proceed with your message. Not to be used for any other purpose.

Hold or Hold Position - Stay in place where you are currently located.

Hold Short of... - Proceed to, but hold short of a specific point and maintain appropriate distance to avoid interfering with other traffic. With respect to runways, always stop at the runway.

Negative - No; Permission not granted; That is not correct.

Proceed - You are authorized to begin or continue moving.

Read Back - Repeat my message back to me.

Roger - I have received your last transmission; but not to be used to answer a question requiring a “yes” or “no” response (see Affirmative, Negative).

Say Again - Repeat what you just said.

Stand By - Wait for further information, as in “stand by for clearance”.

Unable - Indicates inability to comply with a specific instruction, request or clearance.

Verify - Request confirmation of information.

Without Delay - Follow instructions expeditiously, specifically and safely.

Wilco - I have received your message, understand it and will comply.

Aviation also utilized the phonetic alphabet. To avoid confusion or misunderstanding, each letter of the alphabet has been assigned a word. For example, when taxiing on taxiway "A" you would refer to this as taxiway "Alpha".

A Alpha	M Mike	Y Yankee
B Bravo	N November	Z Zulu
C Charlie	O Oscar	0 Zero
D Delta	P Papa	1 One
E Echo	Q Quebec	2 Two
F Foxtrot	R Romeo	3 Three
G Golf	S Sierra	4 Four
H Hotel	T Tango	5 Five
I India	U Uniform	6 Six
J Juliet	V Victor	7 Seven
K Kilo	W Whiskey	8 Eight
L Lima	X X-ray	9 Niner

Airport Procedures: FOD

Trash or rocks sucked into a jet engine can shred parts of the engine in seconds. A rock caught by a propeller can damage the propeller, as well as become a deadly projectile. Make your airport a safer place by cleaning up after yourself. Get in the habit of picking up any trash and debris that you notice while driving around the airport. Avoid tracking mud and rocks onto taxiway and runway surfaces.

In the aviation industry there are two generally accepted meanings for the acronym FOD.

Foreign Object Debris:

A substance, debris or article alien to a vehicle or system that could potentially cause damage. It's anything-large or small-inside or around aircraft and flight line operations that doesn't belong there, which could create a hazard to equipment or personnel.



Foreign Object Damage:

Any damage done to aircraft or other aviation equipment by foreign object debris entering the engines, flight controls, or other operating systems.



At best, FOD will cost only money but at worst it can result in injury or death. FOD is estimated to cost the aviation industry \$4 billion every year worldwide.

Airport Procedures: Runway Incursions

A runway incursion is:

"Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in loss of separation with an aircraft taking off, intending to take off, landing, or intending to land."

The FAA has placed special emphasis on preventing runway incursions. The risk of being involved in a runway incursion can be greatly reduced by improving communication and knowledge of airport taxiways/runways



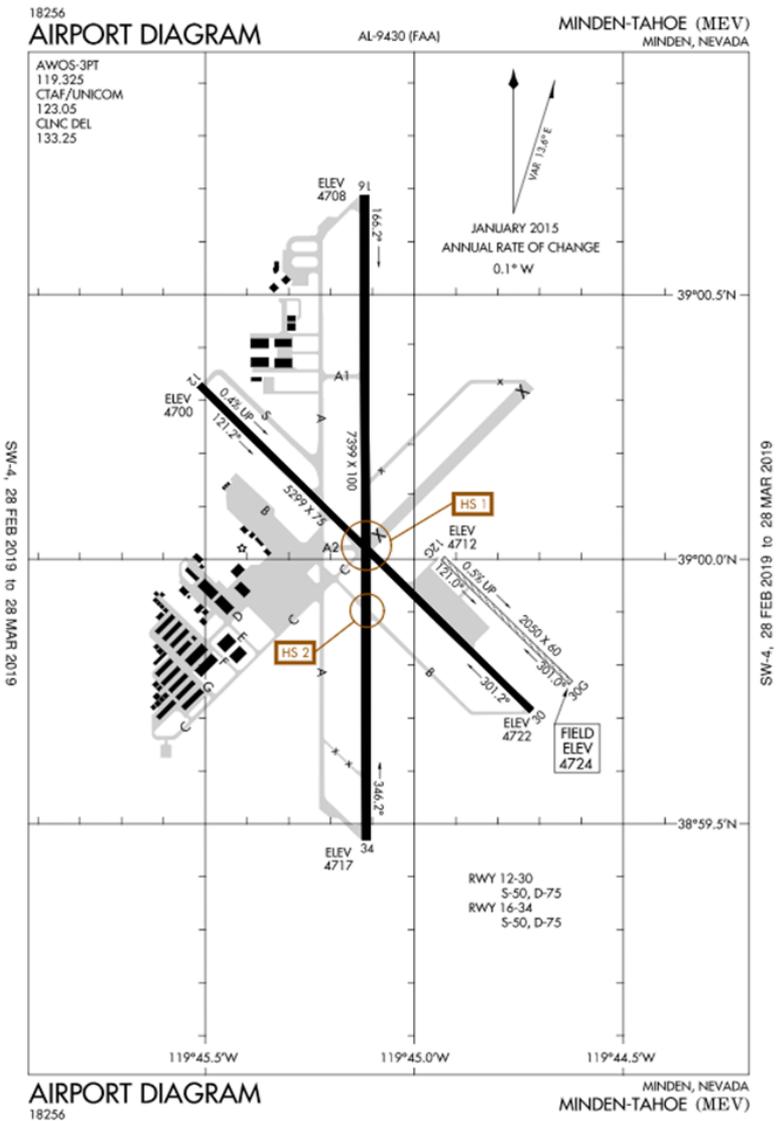
AIRPORT "HOT SPOTS"

Hot Spots are locations on the airport movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary. A Hot Spot is a runway safety related problem typically at a complex or confusing taxiway/taxiway or taxiway/runway intersection. As a vehicle driver, it is your responsibility to be familiar with these areas and use extreme caution when driving in, or near them.

Minden-Tahoe has two (2) hot spots that have been identified by the FAA:

Hot Spot 1: Intersection of runways 16/34 and 12/30.

Hot Spot 2: Intersection of runway 16/34 and taxiway Bravo.



Airport Procedures: Emergency Procedures

Important Phone Numbers

Emergency Services 911
Airport Management 775-782-9871

DO NOT TOUCH OR MOVE ANY VEHICLES OR EQUIPMENT INVOLVED IN THE ACCIDENT

Unless needed to access injured personnel or prevent an unsafe situation.

In the event that an aircraft declares an emergency or experiences an accident call the airport management office immediately. If injuries are reported or observed, then contact emergency services by calling 911.

Once airport management is notified they will handle the situation and make the appropriate notifications depending on the situation.

Airport Procedures: Revoked Access

Any person granted an access waiver who fails to comply with any airport rules or regulations may lose their waiver. The Airport Manager has the final authority regarding the loss of access waiver privileges.

Please remember that all highway laws apply while on the airport—No texting or phone use while driving!

The Airport Manager also has the authority to have any vehicles and equipment moved or removed at the owner's expense. This includes any applicable storage fees incurred as a result of the tow.



Revoked access may occur when:

There is a violation of any rule or regulation.

An emergency incident or occurrence involving your access.

After notice, the vehicle impedes or interferes with maintenance of the airport or construction projects.

Vehicle impedes aircraft operations, creates a nuisance or hazard.

Vehicle is not legally registered.

Airport Procedures: Glider Operations

Minden-Tahoe is a world-famous soaring site. Glider pilots come here for basic and advanced instruction and to fly mountain waves and extended cross-country flights. Up to 80% of movements are glider-related, and as many as 60 to 100 gliders can be based here during the soaring season. Many glider pilots are foreign visitors to the USA and Nevada.

While motor gliders can self-taxi, all other gliders require assistance (usually by vehicle) to move around the airfield and into position for a tow. Similar assistance can be required after landing. Vehicles towing gliders will follow the same procedures as any other vehicle operating on the ramps, taxiways and runways. However, a vehicle/glider combo cannot move very fast or maneuver as easily as a small aircraft. Extra care and good radio communications are essential to the safe, cooperative mix of glider and power traffic both in the air and on the ground.



Conclusion

Thank you for reviewing the important information outlined in this course. We are proud of our safety reputation here at the Minden-Tahoe airport which is credited to individuals, like yourself, who are safety-minded. Now that you have completed the course you will be tested on your knowledge and understanding of airport procedures and operating rules specific to the Minden-Tahoe airport. The test is a 15 question exam that requires a 80% to pass. Once you have completed the exam with a satisfactory score, airport operations will review any missed questions with you to ensure complete understanding of local policy and procedures.

Once you have passed the exam you will be issued your access waiver. Please remember ***this waiver will expire after 24 months*** at which time you will need to renew your access waiver.

Good Luck!

Notes: