

# Easton Airport Vehicle Operations Training

October 2008

Cover

## **EASTON AIRPORT VISION**

*Create an environment which fosters and promotes Aviation Enterprise by providing:*

- *Safe operating principles*
- *Affordable quality facilities*
- *Leading edge technology*
- *A commitment to the future of aviation in Talbot County*

### Purpose

This document has been developed as an Easton Airport guide and training feature for the personnel driving on the Aircraft Operations Area (AOA). The intent of this document is to offer training guidelines and a day to day means of reference for safe operation of all types of ground vehicles. All training will be documented and retained for a period of two years.

### Responsibility

The complete cooperation of all drivers is necessary if Easton is to have safe vehicle operations. The Airport Management is responsible for offering this training and requiring drivers to follow these guidelines.

### Applicability

Any person authorized to access the AOA movement area. This includes, but not limited to, airport employees, construction/contractors, farm lease employees and others as required.

Non-Compliance can result in loss of driving privileges on the airport. Remedial training will be required to reestablish those privileges. Enforcement of the ground vehicle procedures applicable to airport employees, tenants and contractors shall be handled by the Airport Manager.

1<sup>st</sup> Offense – The Airport Manager will verbally warn the driver of violations.

2<sup>nd</sup> Offense – The Airport Manager will provide written warning to the driver and associated FBO of violations.

3<sup>rd</sup> Offense – The Airport Manager will revoke airport driving privileges of the offending driver.

Airport Security and Safety is every user's responsibility. Driving on the Airport is an earned privilege that if to be maintained must be taken very seriously by all drivers.

Communication with the Air Traffic Control Tower (ATCT) is the hinge pin of a safe ground vehicle operation inside of the AOA. The tower is responsible for all aspects of vehicle control during hours of operation.

Vehicles operating on the airport AOA will have roof height flashing yellow lights or FAA approved flags. Flags are only authorized for day light operations during good visibility.

General points of knowledge and interest needed to safely operate a ground vehicle on The Easton Airport.

Airport's are unique and offer issues and obstacles that may be unseen and there for unexpected by the driver. The control tower needs to know where every vehicle and aircraft operating on the airport is at any given time. Areas hidden from the tower and high speed aircraft can bring tragedy to a scenario in an instant. Different areas on the airfield are clearly marked if the driver knows what to look for and what to do when these markings are encountered. Construction, inspections and maintenance of airport surfaces and equipment dictate the need to access the operational areas regularly.

Runway markings are white with numbers at each end with stripes down the middle and continuous lines on the edges. Runways are designed and built for high speed aircraft; never drive on a runway without communication equipment and authorization from the tower. Runway edge lighting is white with threshold lights split to green and red. The last section of the runway edge lighting is split white and yellow.

Runway Safety Area (RSA) is an area surrounding the runway 250 feet each side of the runway centerline and continuing as much as a 1000 feet off the ends from the threshold. RSA may vary in size due to design and type aircraft using the airfield. If an aircraft should deviate from the actual runway surface due to a malfunction or failure the RSA is designed to minimize the damage. The outer edge of the RSA is identified by the red and white holding sign and yellow hold line markings on the adjacent Taxiways. Any objects that are not specifically needed for the proper function of the runway are strictly forbidden. When required to work/drive in the RSA be aware of engines and wings that may extend well beyond the edge of pavement. The entire runway safety area is considered the runway environment and should be treated as such at all times.

Runway Incursion is “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.”

Taxiway markings are yellow and designate the areas used by aircraft to and from the runways and the hangars and parking ramps. Taxiways are less wide than runways and are designated with letters instead of numbers. Taxiways also have safety areas (TSA) best described as the area outside the pavement needed for the longest wing of the largest aircraft capable of using the airport. Taxiways have a yellow center line with a hold line located at the edge of the RSA to allow pilots to know they are entering the

Runway environment. Taxiway signage will have the taxiway letter and in some cases an arrow indicating the direction to that taxiway. The letter designator will be yellow on a black background if the vehicle is on a taxiway and a black letter on a yellow background if the vehicle is exiting a runway onto a taxiway. Taxiway edge lighting is blue.

Aprons and Ramps are used to service and park aircraft. Aircraft always have the “Right of Way” the vehicle driver must be especially aware on these areas due to high levels of activity and taxiing aircraft. Extra caution is always needed in fueling areas where fuel trucks and personnel are moving in close proximity to parked aircraft. Prop wash and jet blast and intakes are another major concern on apron and ramps. The aircraft’s beacon is a good indicator of engines running or about to be started.

Movement area boundary markings are two yellow lines one solid and one broken or dashed on the pavement. These markings indicate the area under control of the ATCT with the solid line being the outer boundary. You must obtain authorization prior to crossing the solid line.

Signs and Markings are equally important to the ground vehicle operator as they are to the pilot. Inadvertent entry by ground vehicles into movement and non movement areas poses a danger to both the vehicle operator and the aircraft. The following is a listing and brief description of the most common signs and markings encountered in the AOA:

Holding position sign is white numbers on a red background. Found at the intersections of runways and taxiway and runways. Driving beyond this sign without authorization from the control tower could cause a Runway Incursion.

Holding position marking is yellow and painted on the taxiway pavement just prior to entering the runway. This is the Airport Stop Sign do not cross; control tower authorization is required before proceeding. This marking contains both solid and broken lines the solid lines are on the taxiway side and the broken lines are on the runway side.

Runway safety area boundary sign is a yellow background with black markings. This sign indicates the hold line when the pavement markings are obscured by snow or weather conditions when exiting a runway.

Radio Communication must be second nature to the operation of any ground vehicle. When operating a vehicle in the controlled portion of the airport the driver must be in regular communication with the ATCT. The following are a general list of operational requirements:

1. All vehicles must have an identifying call sign.
2. Use only aviation phraseology and phonetic alphabet.
3. Make sure no one else is talking so as to not interrupt.
4. Prepare, think about what you are going to say prior to talking.
5. Say who you are calling (Easton Ground) followed by who you are (Easton operations 3).

6. Wait for the controller to respond then make your request to access and only proceed when directed by the tower.
7. Prior to following the tower's direction you must repeat their directions to them so they know you understand the specifics.

The following aviation phonetic alphabet is necessary for proper descriptions, designations and registration numbers of aircraft:

A	Alpha	N	November
B	Bravo	O	Oscar
C	Charley	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliet	W	Whiskey
K	Kilo	X	X-ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

Aviation Phraseology though somewhat different is usually rather easy to understand, but does differ somewhat from the private sector and must be used to prevent misunderstandings. The following are some of the more highly utilized phrases:

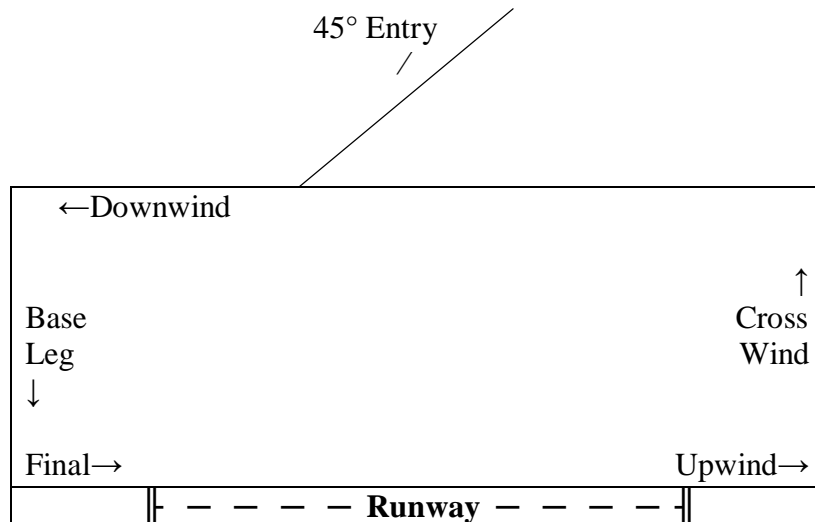
Acknowledge -Let me know you have received and understood my message.  
 Advise Intentions-Tell me what you plan to do.  
 Confirm- Is that correct.  
 Correction-An error has occurred and the correction is to follow.  
 Go ahead-State your request  
 Hold or Hold position-Stop and stay where you are.  
 Hold short- Proceed, stop and hold short of a specific point.  
 Negative-No or permission not granted, or that is not correct.  
 Proceed-Authorization to begin or continue moving.  
 Read back- Repeat back my last message.  
 Roger-I have received your message. Not to be used to answer a yes or no question.  
 Say again-Repeat your last message.  
 Standby-Wait, I will be back to you.  
 Unable-I can not do what you ask.  
 Verify-Requesting confirmation of the last information  
 Wilco-I have received you message and understand same.

The ATCT has a light gun that sends a concentrated beam of white, green or red light. Should radio communication fail for any reason the driver should look to the tower for direction by the light gun. The following are the standard signals that could be used to direct ground vehicles:

1. Steady Green--Indicates proceed (go) with your line of travel.
2. Steady Red----Indicates STOP do not proceed.
3. Flashing Red--Clear the runway or taxiway immediately. If necessary exit into the grass proceeding beyond the safety area.
4. Flashing white –return to your starting point on the airport.
4. Alternating Red and Green—General warning use extreme caution, and look for other light signals as the ATCT deems necessary.

Foreign Object Damage (FOD) is a threat to all aircraft. When driving in the aircraft operations area (AOA) always be observant and remove any trash or debris that you might see. The vehicle may bring objects such as mud and stones on to the surfaces if operated off and on the hard surfaces. Small objects can damage propellers, destroy jet engines and flatten tires. Always pick up objects and sweep areas that show dirty.

Drivers must know basic Traffic Patterns if they are to locate aircraft as they come to the runway. The pattern is a rectangle box with each side a section of the pattern. Standard pattern is when the pilot makes all left turns landing into the wind, but this can be changed by ATCT at any time. If a right hand pattern is in effect the pilot will make all right turns, with the pattern legs having the same title.



# QUIZ

1. An air traffic controller say “go ahead” this means
  - a. proceed as requested
  - b. continue straight ahead
  - c. state your message
  
2. The red and white sign next to the taxiway is called a runway hold position sign if you are next to this sign, it means
  - a. that you are about to go onto the protected area next to the runway
  - b. that you should follow the sign to get to the parking apron
  - c. nothing to me, it’s only there for pilot’s use
  
3. Two solid yellow stripes followed by two broken yellow stripes is the marking for a runway hold line. A hold line means
  - a. all aircraft must stop and be cleared before going onto the runway.
  - b. everyone. Including vehicles must stop unless authorized to proceed onto the runway at an airport with an operating control tower.
  - c. that you are about to go next to some electronic signal equipment.
  
4. Runway markings are what color
  - a. white
  - b. yellow
  - c. red
  
5. Taxiway markings are what color
  - a. white
  - b. yellow
  - c. red
  
6. A “controlled” airport is one that has an operating airport traffic control tower.
  - a. true
  - b. false
  
7. FOD is caused by
  - a. bad weather
  - b. the airport manager
  - c. trash and debris
  
8. If I have to cross a runway, I should try to do so
  - a. at the end
  - b. in the middle
  - c. wherever I want
  
9. If the air traffic controller signals me with a flashing red light I should
  - a. stop

- b. clear runway or taxiway
  - c. ignore the signal as it is for aircraft only
10. If the air traffic controller signals me with a steady red light I should
- a. stop
  - b. clear the runway or taxiway
  - c. ignore the signal as it is for aircraft only
11. Traffic patterns are used at controlled airports (those with towers) only
- a. true
  - b. false
12. When driving in the area immediately behind a large jet aircraft with its engines running, a driver should
- a. not be concerned about danger from the jet blast because a typical car/van is too heavy to be affected
  - b. stop or stay well back and not proceed behind the aircraft until air traffic control has confirmed the aircraft is at idle power
  - c. cross the area of jet blast at a perpendicular angle to minimize the hazard.
13. Unless contrary instruction have been received the air traffic control, a vehicle should always yield to an aircraft.
- a. true
  - b. false
14. If at a nontowered airport, you see an aircraft approaching the runway to land when you are waiting to cross the same runway you should.
- a. hold short of the runway until the aircraft is past the point at which you will cross the runway then proceed when it is safe.
  - b. proceed across if the aircraft has not announced its position on the UNICOM frequency.
  - c. contact the pilot by radio and see if he/she intends to make a touch and go landing.
  - d. flash your headlight at the aircraft
15. An aircraft that has announced its position on the UNICOM frequency as “downwind” at the nontowered airport on which you are driving is flying
- a. perpendicular to the runway after initial climb and turn
  - b. parallel to the runway in the direction opposite landing
  - c. an approach to land with the wind instead of into the wind
  - d. too fast to spot until the aircraft slows down to land
16. If a controller gives you permission to do something which appear unsafe
- a. you must comply or face disciplinary action

- b. you should comply and then call your supervisor as soon as practicable
  - c. you should tell the controller your concern and get clarification
  - d. flash your headlight and proceed
17. Aircraft usually land and takeoff
- a. into the wind
  - b. with the wind at their back
18. An aircraft that has announced its position as “short final” is
- a. nearing the runway threshold for landing
  - b. about to make the last landing for the day
  - c. well outside of the airport traffic pattern
19. A touch and go landing involves
- a. a landing without bouncing
  - b. a landing followed by immediate application of power to takeoff without bringing the aircraft to a stop.
  - c. a lot of skill
  - d. aircraft flying information
20. Which of the following will make driving on an airport more difficult?
- a. snow and ice
  - b. night driving
  - c. congested ATC frequencies
  - d. all of the above
21. An aircraft that has announced its position on the UNICOM frequency as “base leg” at the nontowered airport on which you are driving is flying
- a. perpendicular to the runway after initial climb and turn.
  - b. parallel to the runway in the direction opposite landing.
  - c. perpendicular to the runway about to turn final and land
  - d. with a pilot at the controls whose foot is asleep.