

# Airfield Driver Training Program



\*This handbook is provided by the Erie Regional Airport Authority to acquaint all employees with the local procedures for operating vehicles on the airport. These rules and regulations are subject to change should circumstances dictate a need to revisit these procedures. It is the responsibility of airport management to disseminate pertinent changes and additions to this handbook. It is the responsibility of the tenant, employee, or contractor to ensure that all employees are properly trained in the policies and procedures for the operation of ground vehicles at the Erie International Airport.

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# Introduction

This handbook presents guidelines and procedures designed to enhance the safety and efficiency of the Airport Operating Area (AOA). In addition, the implementation of this program is intended to assist in the elimination of runway incursions. This handbook contains information which should be thoroughly understood by all persons who intend to operate on the AOA.

It is extremely important that all persons who conduct AOA operations have a thorough understanding of the runway and airfield layout at the Erie International Airport (ERI) as well as familiarity with applicable Air Traffic Control Tower (ATCT) procedures. Formal AOA training and the successful completion of all mandatory evaluations are required for all persons exercising AOA driving privileges at the Erie International Airport.

Only individuals who have successfully completed the AOA Drivers Training Program will be permitted to conduct AOA Driving operations at ERI. Persons who successfully complete the AOA Drivers Training Program and evaluation process will be issued an AOA Drivers Permit. Any violation of the Rules & Regulations can result in the loss of your ID badge and remedial actions will be taken.

## ***Severability***

If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of these rules and regulations or any part thereof is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction or other competent agency, such decision will not affect the validity or effectiveness of remaining portions of these rules and regulations.

# Drivers Training

Drivers Training consists of both initial and recurrent instruction. Training can be scheduled throughout the year. Recurrent training is conducted annually. It is the responsibility of the employer and/or department supervisor to ensure that the applicant is ready to operate as a competent AOA driver. Prior to scheduling training, the applicant should spend time with his or her employer and/or department supervisor by reviewing this handbook. The applicant should have a complete knowledge of the material and have good practical knowledge of operating on the airfield. Please contact the Airport Authority at (814) 833-4258 if you have any questions regarding the training process.

## ***Initial Training***

New AOA Driver applicants are required to complete initial training prior to receiving AOA driving privileges at the Erie International Airport. It is the responsibility of the employer and/or department supervisor to ensure that the applicant is ready to operate as a competent AOA Driver.

Upon successful completion of the above requirements, the applicant, employer, and/or department supervisor shall fill out and sign an AOA Vehicle Operator Application. The employer and/or department supervisor may then contact the Airport Authority at (814) 833-4258 to schedule the formal AOA drivers training session and evaluation.

The formal evaluation for new drivers will be completed by a designated AOA Drivers Training Instructor/Examiner and consist of the following:

1. An oral review including a presentation appropriate to the working season.
2. A video presentation.
3. A written knowledge exam consisting of both multiple-choice and true/false questions.
4. An airfield AOA practical driving test.

In order to successfully complete the initial training, the applicant must successfully complete the written exam with a passing score of 90% or better and pass the practical driving test as determined by the designated Examiner.

## ***Recurrent Training***

To maintain AOA driving privileges, each authorized AOA Driver must also complete annual recurrent training within 365 days of initial or previous recurrent training. This recurrent training is intended to refresh drivers of the operating hazards and any special conditions that may exist.

Failure to participate in this required recurrent training will result in the revocation of AOA privileges. The individual will be required to reapply and pass all phases of the AOA drivers training program to earn back his or her AOA driving privileges.

AOA Drivers should study and review the Vehicle Operator's Handbook prior to recurrent training. Recurrent training will be in a manner sufficient to allow the driver maintain

knowledge and proficiency to safely and effectively operate within the movement area(s)

### ***Retesting After Failure***

Movement Area driver applicants must successfully pass both the written and practical driving portion of the test. Applicants who fail any portion of the test are not permitted to operate on the AOA unless accompanied by an individual with AOA driving privileges. An applicant will only be retested in the area in which he or she has failed. For example, an individual who passes the written portion but fails the driving portion will only be required to retest on the driving portion.

A minimum score of 90% is required to successfully pass the written exam. Applicants who fail the written portion of the examination will be instructed to take adequate time to thoroughly study and review the information in the AOA Vehicle Operator and Pedestrian Handbook. After the applicant is prepared, he or she may be allowed to retest during the next scheduled training class.

An applicant who fails the practical driving evaluation will immediately be critiqued on the areas of deficiency by the examiner. He or she may schedule a retest only after they complete training in the areas of deficiency with their employer and/or department supervisor.

A Movement Area Drivers Application must be completed by the applicant, employer, and/or supervisor prior to each retest.

### ***Non-Compliance***

Enforcement of the pedestrian and ground vehicle procedures and rules are applicable to airport employees, tenants and contractors and all instances of non-compliance shall be handled by the Airport Executive Director.

Surveillance shall be maintained to ensure that only authorized vehicles and persons operate on the AOA and regulations are followed.

When violations are observed or reported appropriate action will be taken. In the event a report is received of unauthorized vehicles or persons on the AOA, an Airport Operations vehicle, or Airport Law Enforcement vehicle will be dispatched to intercept and escort the violator from the area. A report will be prepared and kept on file concerning all incidents. Appropriate corrective action will be taken as determined by the Airport Executive Director.

### ***Consequences***

#### **1. First Offense:**

- a. The individual's SIDA badge will be confiscated.
- b. The individual will receive a permanent letter of non-compliance of federal regulation and driving privileges will be revoked for a minimum of 3 calendar days.
- c. If the violator is a tenant or contractor, the individual's organization/tenant group security liaison will receive notification of non-compliance of federal regulation and driving privileges will be revoked for the driver for a minimum of 3 calendar days.

- d. The individual will be required to submit a written, detailed report describing the surface incident to the Airport Executive Director.
  - e. AOA drivers will complete AOA drivers training to include both written and practical testing of airfield driving procedures.
  - f. Upon successful completion of the AOA driver's training, the driver's immediate supervisor is required to conduct a ride along to observe the driver on the movement areas for 10 calendar work shifts. The supervisor is required to submit a detailed letter to the Airport Executive Director, who will approve or deny unescorted access and airfield driving privileges to the driver.
- 2. Second Offense:**
- a. The individual's SIDA badge will be confiscated.
  - b. The individual will receive a permanent letter of non-compliance of federal regulation and driving privileges will be revoked for a minimum of 15 calendar days.
  - c. If the violator is a tenant or contractor, the individual's organization/tenant group security liaison will receive notification of non-compliance of federal regulation and driving privileges will be revoked for the driver for a minimum of 15 calendar days.
  - d. The individual will be required to submit a written, detailed report describing the surface incident to the Airport Executive Director.
  - e. AOA drivers will complete AOA drivers training to include both written and practical testing of airfield driving procedures.
  - f. Upon successful completion of the AOA driver's training, the driver's immediate supervisor is required to conduct a ride along to observe the driver on the movement areas for 10 calendar work shifts. The supervisor is required to submit a detailed letter to the Airport Executive Director, who will approve or deny unescorted access and airfield driving privileges to the driver.
- 3. Third Offense:**
- a. The individual's SIDA access will be permanently revoked and will be banned from unescorted pedestrian or vehicular access to any restricted or secured areas of the airport.

# Definitions

***Accident*** – A collision between one aircraft or vehicle and another aircraft, vehicle, person, or object that results in property damage, personal injury, or death.

***Air Carrier Ramp*** – a ramp for air carriers. Only authorized personnel and vehicles may operate on this ramp. Private vehicles and aircraft are prohibited from operating on it

***Aircraft*** – A device that is used or intended to be used for flight in the air.

***Aircraft Rescue & Firefighting (ARFF)*** – Specialty equipment and personnel trained to respond to airport emergencies for airport rescue and firefighting.

***Airport Operations Area (AOA)*** – The AOA consists of all restricted ground areas of the airport, including taxiways, runways, loading ramps, and parking areas. In other words, everything that is inside the perimeter fence. The AOA is divided into two distinct areas: the ‘Movement’ area and the ‘Non-movement’ area.

***Airside*** – Those areas of an airport that support aircraft activities.

***Airport*** – Erie International Airport, Tom Ridge Field, owned and operated by the Erie Regional Airport Authority including all improvements and equipment existing or to be developed.

***Airport Traffic Control Tower (ATCT)*** – A facility using air to ground communications, visual signaling and other devices to provide air traffic control services to aircraft operating in the vicinity of the airport or on the movement area.

***Apron or Ramp*** – Area designed for loading or unloading passengers and/or cargo, refueling, catering, parking or maintenance of aircraft.

***Common Traffic Advisory Frequency (CTAF)*** – Radio frequency designed for the purpose of carrying out airport advisory practices while operating to or from an airport without an operating ATCT or when the tower is closed. The common traffic advisory frequency at the Erie International Airport is 122.95 MHz.

***Federal Aviation Administration (FAA)*** – The federal agency charged with the administration and oversight of the national airspace system, including, but not limited to, air traffic control and airport security.

***Fixed Base Operator (FBO)*** – a person, firm, or organization engages in a business that provides a range of basic services to general aviation. Services may include the sale and dispensing of fuel, line services, aircraft parking and tie-down, pilot and passenger facilities, airframe and power plant maintenance, aircraft sales and rental, and pilot instruction.

***Flight Service Station (FSS)*** – air traffic facilities that provide pilot briefings, en route communications, and visual flight rules search and rescue services; assist lost aircraft and aircraft in emergency situations; relay air traffic control clearances; originate Notices to Airmen;

broadcast aviation weather and National Airspace System information; receive and process instrument flight rules flight plans; and monitor NAVAIDS. In addition, at selected locations, FSSs provide En Route Flight Advisory Service (Flight Watch), take weather observations, issue airport advisories, and advise Customs and Immigration of transborder flights.

**Foreign Object Debris (FOD)** – debris that can cause damage to aircraft engines, tires, or skin from rocks, trash, or the actual debris found on runways, taxiways, and aprons.

**General Aviation (GA)** – That portion of civil aviation that encompasses all facets of aviation except air carriers holding a certificate of public convenience and necessity.

**Ground Vehicle** – All conveyances, except aircraft, used on the ground to transport persons, cargo, fuel, or equipment.

**Hold Short Line** – A pavement marking made up of two solid yellow stripes followed by two broken (dashed) stripes located across a taxiway. The solid stripes of this marking must be considered like a STOP sign. The marking means you are near an active runway. You must receive clearance via radio from the Air Traffic Control Tower to cross a hold line and enter a runway.

**ILS Critical Area** – An area provided to protect the signals of the localizer and Glide-slope.

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

**Jet Blast** – Jet engine exhaust or propeller wash (thrust stream turbulence).

**Law Enforcement Officer (LEO)** – any person vested with police power of arrest under Federal, State, County, or City authority and identifiable by uniform, badge and other indication of authority.

**Light Gun** – a hand held, directional light-signaling device that emits a bright narrow beam of white, green, or red light, as selected by the tower controller. The color and type of light transmitted can be used to approve or disapprove anticipated pilot or vehicle actions where radio communication is not available. The light gun is used for controlling traffic operating in the vicinity of an airport and on the airport movement area.

**Mobil Fueller** – a vehicle owned and/or operated by authorized agents to pump and dispense Jet A and 100LL fuel at ERI.

**Movement Area** – the runways, taxiways, and other areas of an airport that aircraft use for taxiing, takeoff, and landing, exclusive of loading ramps and parking areas, and that are under the control of an air traffic control tower.

**MULTICOM** – a mobile service not open to public correspondence used to provide communications essential to conduct the activities being performed or directed from private aircraft.

**Navigational Aids (NAVAIDS)** – Electronic equipment located near runways and taxiways. They provide horizontal and/or vertical guidance to aircraft.

**Non-Movement Areas** – taxiways, aprons, and other areas not under the control of air traffic or at airports without an operating airport traffic control tower.

**Operator** – any person who is in actual physical control of an aircraft or motor vehicle.

**Owner** – a person who holds the legal title of an aircraft or motor vehicle.

**Pedestrian** – Person on foot.

**Restricted Areas** – areas of the airport posted to prohibit or limit entry or access by the general public. All areas other than public areas

**Runway** - A defined rectangular surface on a land airport prepared for the landing and takeoff run of aircraft along its length.

**Runway in Use or Active Runway** – any runways or runway currently being used for takeoff or landing. When multiple runways are in use, they are all considered active runways.

**Runway Safety Area** - a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

**Security Identification Display Area (SIDA)** - A TSA designated restricted area. Each person must wear an airport issued or airport approved identification medium on your outermost garment unless under airport approved escort.

**Surface Movement Guidance and Control System (SMGCS)** – a system comprising the provisions for guidance to, and control or regulation of all aircraft, ground vehicles, and personnel of the airport during low-visibility operations. Guidance relates to facilities and information necessary for pilots and ground vehicle operators to find their way about the airport. Control or regulation means the measures necessary to prevent collisions and to ensure that traffic flows smoothly and efficiently.

**Taxiway** – those parts of the airside designated for the surface maneuvering of aircraft to and from the runways and aircraft parking areas.

**Tie Down Area** – an area used for securing aircraft to the ground.

***Uncontrolled Airport*** – an airport without an operating airport traffic control tower or when airport traffic control tower is not operating.

***UNICOM*** – a non-Federal communication facility that may provide airport information at certain airports. Locations and frequencies of UNICOMs are shown on aeronautical charts and publications.

***Vehicle Service Road*** – a designated roadway for vehicles in a non-movement area.

***Very High Frequency Omnidirectional Range (VOR)*** – a ground-based electronic navigation aid transmitting very high frequency navigational signals, 360 degrees azimuth, orientated from magnetic north. Used as the basis for navigation in the National Airspace System.

***Wake Turbulence*** – phenomenon resulting from the passage of an aircraft through the atmosphere. The term includes vortices, thrust stream turbulence, jet blast, jet wash, propeller wash, and rotor wash both on the ground and in the air.

# REGULATIONS

All persons operating on the Erie International Airport AOA are governed by the procedures and rules set forth by the Erie Regional Airport Authority and the Federal Aviation Administration. Any deviation from these regulations is grounds for suspended or revoked AOA privileges. Safety is not optional!

## *General*

1. All Commonwealth of Pennsylvania traffic laws and codes shall apply on the AOA.
2. Vehicle operators and pedestrians shall comply with all operating procedures and rules established by the FAA and the Erie Regional Airport Authority.
3. No person shall enter the Security Identification Display Area (SIDA) unless he or she displays a valid airport issued SIDA Badge above waist level on the outermost garment. Persons without a valid SIDA Badge, who have an operational need to enter the SIDA, shall be under continuous surveillance by an approved escort.

## *Pedestrian Requirements*

1. No pedestrian shall be permitted on the AOA unless authorized by the Erie Regional Airport Authority.
2. No pedestrian shall be permitted on the AOA movement area except for –
  - a. Authorized personnel performing typical functions, such as inspection or maintenance.
  - b. Approved construction crews under the direct guidance of the Erie Regional Airport Authority.
  - c. Persons, otherwise, authorized by the Erie Regional Airport Authority.
  - d. Persons under an approved escort.
3. Authorized pedestrians in the AOA movement area shall be equipped with at least a two-way radio, or an approved escort with a two-way radio, capable of transmitting and receiving communications with the Air Traffic Control Tower.
4. Pedestrians under an approved escort shall be briefed on the applicable rules and procedures that apply to their duties prior to operating on the AOA.

## *Vehicle Operator Requirements*

1. No vehicle shall be operated on the airside unless the driver has, in his or her possession, an approved, airport issued driver's permit and a valid state driver's license.
2. No person operating or driving a vehicle on any aircraft ramp shall exceed a speed greater than 15 miles-per-hour. Factors including, but not limited to, weather and visibility shall be taken into consideration when determining a safe operating speed.
3. No vehicle shall pass between an aircraft and passenger terminal or passenger lane when the aircraft is parked at a gate position except those vehicles servicing the aircraft. All other vehicles must drive to the rear of the aircraft and shall pass no closer than 25 feet from any wing or tail section.
4. Vehicle drivers shall yield to, aircraft, passengers, and emergency vehicles, which ALWAYS have the right-of-way on any portion of the airport.
5. No vehicle operator shall enter the airside unless authorized by the Erie Regional Airport Authority or unless the vehicle is properly escorted.

6. No person shall operate any motor vehicle that is in such physical or mechanical condition as to endanger persons or property or that the Erie Regional Airport Authority considers an endangerment.
7. A vehicle guide person is required whenever the vision of the vehicle operator is restricted.
8. No fuel trucks shall be brought into, stored, or parked within 50 feet of a building. Fuel trucks must not be parked within 10 feet from other vehicles.
9. When not serving aircraft or undertaking their intended functions, ramp vehicles and equipment shall be parked only in approved areas.
10. Vehicle operators shall not park vehicles under or within the service range of any passenger loading bridge.
11. No person shall park, or leave unattended, vehicles or other equipment that interfere with the use of a facility by others or prevent movement or passage of aircraft, emergency vehicles, or other motor vehicles or equipment.
12. No person shall park a vehicle or equipment within 25 feet of a fire hydrant or in a manner that prohibits access to a fire hydrant.
13. No person shall operate a vehicle or other equipment while under the influence of alcohol or any drug that impairs, or may impair, the operator's abilities.
14. Each vehicle operator using an AOA access gate shall ensure the gate closes behind the vehicle prior to leaving the vicinity of the gate. The vehicle operator shall also ensure no unauthorized vehicles or persons gain access to the airside while the gate is open.
15. Vehicle operators shall not operate vehicles in a reckless or careless manner. A reckless or careless manner is one that intentionally, or through negligence, threatens the life or safety of any person or threatens damage or destruction of property.
16. Vehicles shall not enter the movement area or cross runways unless the operator of the vehicle has received required training and authorization from the Erie Regional Airport Authority to operate on the movement area. Whenever possible, all airport vehicles shall utilize the airport perimeter and service roads to transition between areas on the airport.
17. Each vehicle operator is responsible for the activities of each of each vehicle passenger on the airside of the airport.
18. No vehicle operator shall park any vehicle or equipment within six (6) feet of either side of the airport perimeter security fencing.
19. No vehicle operator shall operate a vehicle in the movement area without having received initial movement area drivers training.
20. No vehicle operator will be permitted to operate a vehicle in the movement area without completing recurrent drivers training prior to expiration.

### ***Vehicle Regulations***

1. All street legal vehicles operated on the airside must have vehicle liability insurance, as required by the Erie Regional Airport Authority.
2. Vehicles operated on the movement area shall be approved by the Erie Regional Airport Authority.
3. No Vehicle shall be permitted on the movement area unless it is in sound mechanical condition.
4. Vehicles shall not have any objects that obstruct forward and side vision from the driver's seat.

5. Vehicles that are authorized for operation in the movement area shall be equipped with at least –
  - a. Amber, flashing or rotating strobe or beacon and/or an approved orange & white checkered flag.
  - b. Fully functional headlights, brake lights, and parking lamps.
  - c. A two-way radio capable of transmitting and receiving communications with the Air Traffic Control Tower.
  - d. An up-to-date airport diagram of the Erie International Airport that is within easy reach of the vehicle operator.
  - e. Vehicles not meeting these requirements (such as airline tugs, tow tractors) can be escorted by a vehicle that meets the requirements.

# **The Air Operations Area**

The AOA consists of all restricted ground areas of the airport, including taxiways, runways, loading ramps, and parking areas. In other words, everything that is inside the perimeter fence. The AOA is divided into two distinct areas: the 'Movement' area and the 'Non-movement' area.

## ***The AOA***

The Airport Operations Area (AOA) is defined as the area which is inside the Airport security boundary and in which aircraft operate, i.e., runways and taxiways, aircraft gate positions, aircraft parking areas, and areas in which both ground vehicles and aircraft operate to/from runways/taxiways. The AOA consists of both a Movement Area and a Non-Movement Area. The boundary between the Movement Area and the Non-Movement Area is marked with a surface painted Non-Movement Area Boundary Marking. This marking consists of two yellow lines (one solid and one dashed).

## ***Access Procedures***

All persons operating on the movement area must be authorized by the Executive Director of the Erie Regional Airport. No person shall be permitted on the movement area unless their function is directly related to an aviation activity or an activity, otherwise, authorized by the Erie Regional Airport Authority. Anyone operating a vehicle on the movement area must have in their possession valid movement area drivers privileges and a valid state driver's license. In addition, all applicants must satisfactory complete applicable training before being allowed to drive on the movement area.

## ***Security Identification Display Area***

The Security Identification Display Area (SIDA) is described as the non-public areas of the terminal building including the area behind the airline operations area and airline offices with direct access to the air carrier ramp, areas directly adjacent to the terminal building.

Only personnel with airport issued security identification badge are authorized unescorted entry into the Security Identification Display Area.

The Erie Regional Airport Authority requires every person having access to the SIDA to display authorized identification. Persons operating within the Security Identification Display Area (SIDA) must display a valid ERI SIDA Badge above waist level on the outermost garment.

If you observe someone not wearing proper identification while in a restricted area you must challenge that person. If they do not show you authorized ID, keep the individual(s) in sight and call the Erie Airport Department.

## ***AOA Access Gates***

Vehicle and pedestrian gates are locked at all times. The use of gates to access the AOA shall be restricted to authorized personnel approved by the Erie Regional Airport Authority. Gate keys shall not be transferred to other users and any misconduct in the use of gate keys shall be grounds for revocation of AOA/SIDA access privileges.

It is the responsibility of anyone that enters or leaves a gate to ensure that it has closed and is secured completely before driving away from it. In the event you find that the gate does not close properly or if you find a gate that has inadvertently been left unlocked, contact the Airport Police at (814) 397-9911. Do not leave an opened gate unattended.

At no time may any vehicle or equipment be parked within six (6) feet of the airport perimeter security fence.

### ***Escorts***

Tenants and leaseholders at the Erie International Airport are authorized to provide escorts only to and from their lease areas. Escort providers must have and properly display an authorized SIDA Identification Badge. Tenant escorts must use the closest authorized or assigned gates for vehicles entering their lease area. Visitors under escort must be met at the gate entrance and escorted back to the gate each time they enter the AOA. All tenants providing escorts are solely responsible to ensure all persons and vehicles under escort follow all rules and regulations governing vehicle operations.

Service vehicles and persons being escorted must remain with an authorized escort provider of that tenant at all times. The escort vehicle has full responsibility to insure that visitors under escort remain with the escort vehicle. If the visitor deviates from the escort path, it is the operator's responsibility to apprehend the vehicle under escort before a deviation occurs.

### ***Use of vehicle and service roads***

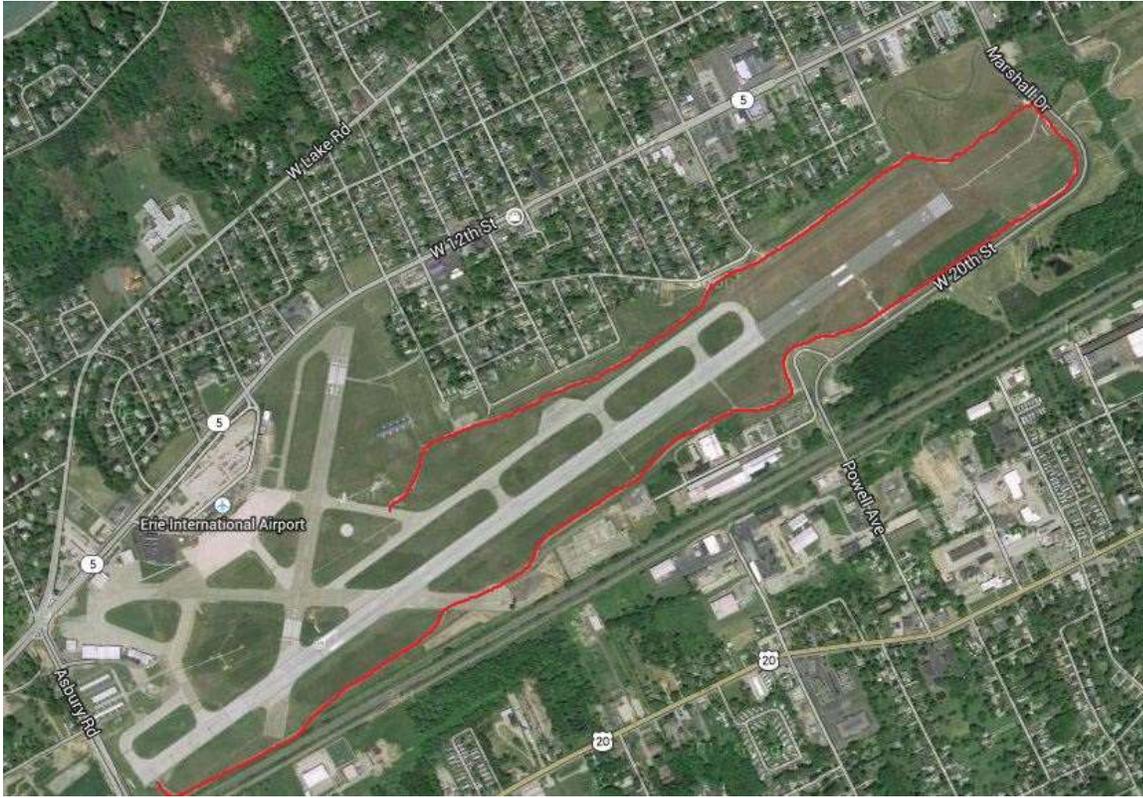
Authorized vehicle operators at the Erie International Airport can utilize the established vehicle and perimeter roads. Service roads allow service vehicles to transition between apron areas without having to enter or cross taxiways or runways; however communications must be established and operators must hold short prior to crossing any runway approach end.

The airports perimeter road can be accessed from the movement area off of T/W C and the approach end of R/W 6.

The service road can be directly accessed through non-movement area perimeter gates 4, 6, 7, 9, 10, 11, 12, 13.

Caution should be taken during winter months; the service road is not marked or maintained.

Airport service road marked in red



***Non-movement area operations***

Non-movement areas include ramps, aprons, perimeter roads, and other areas not under the control of ATCT. Anyone authorized to operate a motorized vehicle on the airside may do so on the non-movement areas without being in positive radio contact with ATCT. Always follow airport procedures and rules to help establish a predictable order to vehicles and pedestrian movements in congested areas and to help ensure the visibility to aircraft and other vehicles.

Operating within the ramp areas requires the vehicle driver to exercise extreme caution as aircraft are moving, aircraft passengers may be walking from an aircraft to a gate, and noise levels are high. Parked aircraft may still have their engines running, so be aware of the hazards of jet blast or prop wash, which may overturn vehicles. Propellers and jet engines can cause significant injury or death to personnel.

Ramp personnel should be familiar with the standard hand signals used for directing aircraft in these areas.

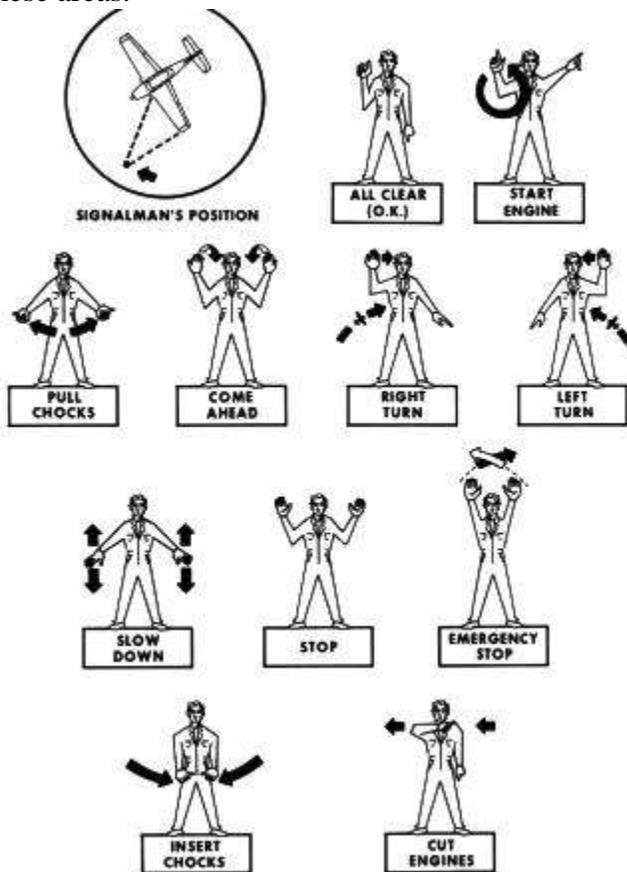


Figure 1-5 Hand Signals

Vehicle drivers should yield to, aircraft, passengers, and emergency vehicles; aircraft ALWAYS have the right-of-way on any portion of the airport. Be aware of cockpit blind spots. Cockpit visibility prohibits the pilot from seeing under the nose or behind the aircraft limiting the pilot's

ability to avoid ground vehicles. Driving close to buildings, around vehicles, or aircraft is prohibited. Drivers shall obey all signs and markings on and along vehicle perimeter or service roads.

There are additional risks present under nighttime and poor weather conditions. Poor weather conditions might obscure visual cues, roadway markings, and airport signs. Vehicle operators should remain vigilant of their surroundings and operator boundaries. Watch out for snow removal equipment and aircraft operating in the vicinity under low-visibility conditions.

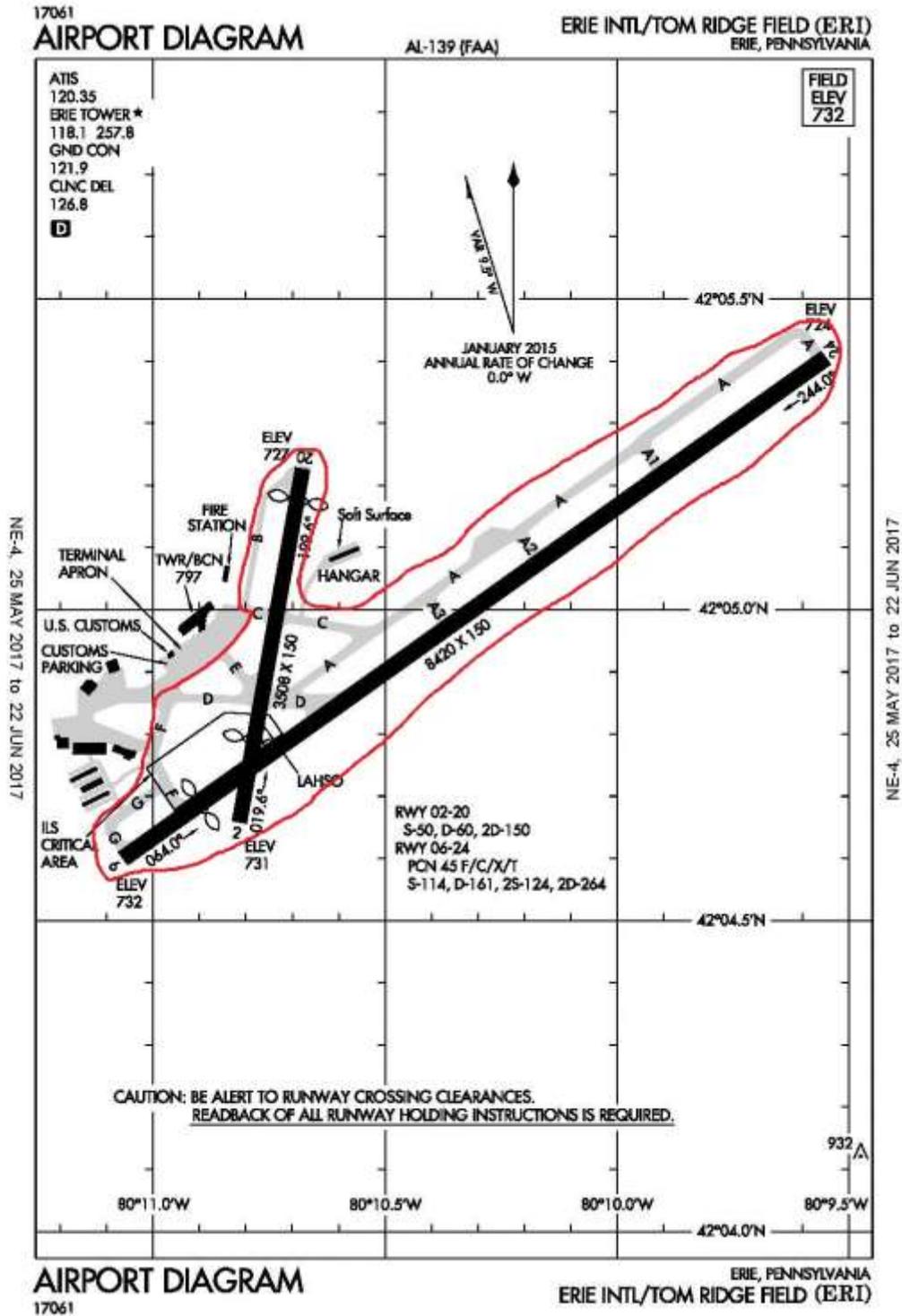
### ***Movement area operations***

Movement areas are defined as the runways, taxiways, and other areas of the airport that are used for taxiing, hover taxiing, air taxiing, and takeoff and landing of aircraft, exclusive of loading ramps and aircraft parking areas. Movement areas are considered “positive control,” meaning that all vehicle operators and pedestrians will need permission from ATCT before entering the area.

Only those vehicles necessary for airport operations may enter a movement area. Nonessential vehicles shall not be permitted to enter these areas. Exceptions may include authorized vehicles and appropriately trained personnel that are permitted by the Erie Regional Airport Authority.

Drivers who are authorized to drive on the movement area require more training and vigilance since there are dangers associated with this area that are not present on the non-movement areas. In addition to the principles and procedures for operating in the non-movement area, drivers who have access to the movement area must be cognizant of the meaning of airfield signs, markings, and lighting configurations. Additionally, they must be able to communicate with air traffic control (ATC) and be able to follow ATC instructions.

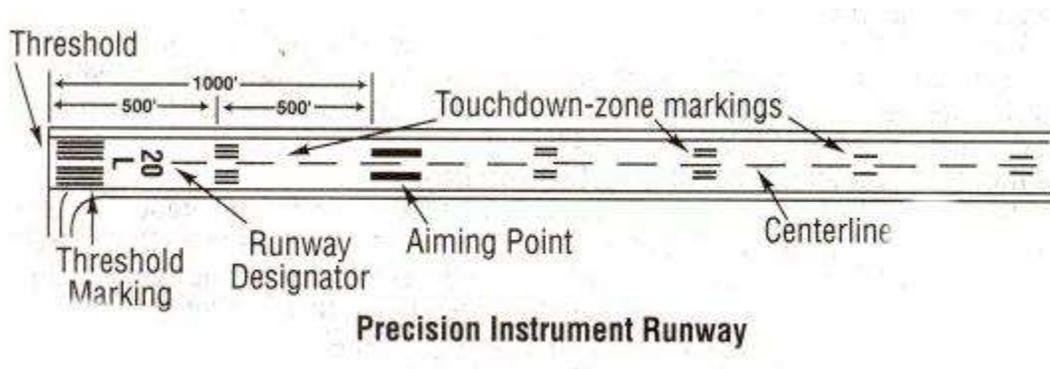
Movement area  
 Within red marked areas  
 Paved surfaces excluding terminal and FBO aprons



# Airport Visual Aids

Just as you learn how to interpret traffic signals, road signs, and highway markings, you will soon become familiar with the visual aids at an airport that help you maintain orientation. There are markings and signs used at airports, which provide directions and assist pilots and vehicle operators in airport surface operations.

Runway markings are painted white and vary depending on the type of operations conducted at the airport. Visual runways usually are marked with only the runway number and a dashed centerline, while instrument runways may have additional reference markings to assist pilots in locating the landing portion of the runway.



Since aircraft are affected by the wind during takeoffs and landings, runways are laid out according to the local prevailing winds. The numbers that you see on runways are not arbitrary, but correspond to magnetic degrees of a north reference. The runway's magnetic direction is rounded off to the nearest 10 degrees, with the last zero omitted. A runway with a magnetic direction of 220 degrees becomes Runway 22. The runway numbers marked at the opposite ends of a runway are 180 degrees from each other. For example, a runway labeled 18 on one end is labeled 36 on the opposite end. Runway numbers are typically painted just beyond the threshold markings. Runway threshold markings identify the beginning of the runway that is available for landing.



### ***Taxiway markings***

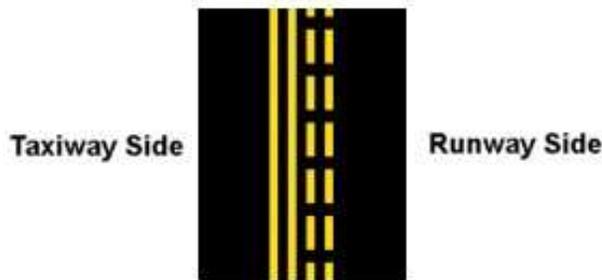
Airplanes use taxiways to transition between parking areas and the runway. Taxiways are identified by a continuous yellow centerline stripe. A taxiway may include edge markings to define the edge of the taxiway. This is usually done when the taxiway edge does not correspond with the edge of the pavement.



### ***Hold position markings***

Hold position markings consist of four yellow lines (two solid and two dashed). Hold position markings are painted at a determined distance to keep vehicle operators, pedestrians, or pilots from entering the runway safety area, jeopardizing both the safety of you and the aircraft using the runway for takeoff or landing. The side of the hold position marking with the two solid lines is where aircraft and vehicles are to hold. Where hold position markings are present, there will always be an accompanying hold position sign.

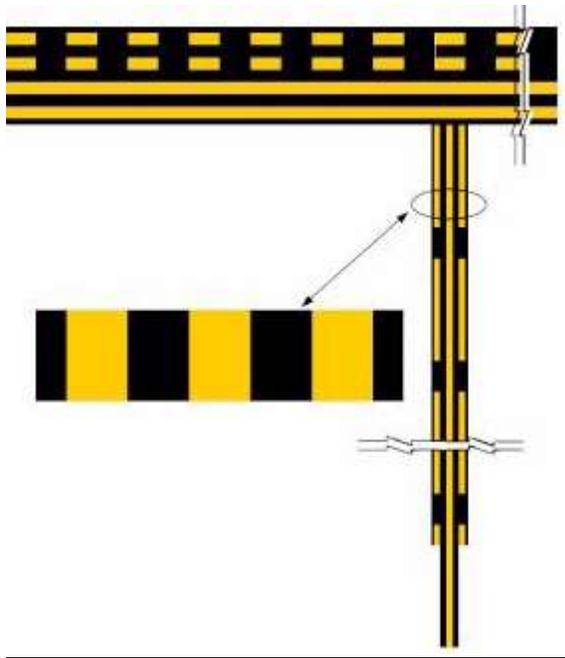
#### **Holding Position before Runway**



When ATCT is in operation, the controller may ask you to hold short of the runway. In this case, you must stop before the hold line and proceed only after you are cleared to do so by the controller, and you have checked for traffic. During the periods that ATCT is closed, you should stop and check for traffic and cross the hold line only after ensuring that no aircraft is using the runway for landing, takeoff, or taxi. When exiting the runway, do not stop until you have cleared the hold line.

### ***Enhanced Taxiway Centerline Markings***

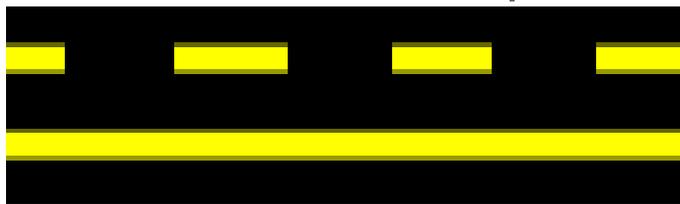
May be present at some airports, and will appear before a runway hold line, as illustrated below. These markings are intended to serve as an additional warning to flight crews that they are approaching the runway.



***Non-movement area boundary markings***

A non-movement area boundary marking delineates a movement area under air traffic control. These markings are yellow and located on the boundary between the movement and non-movement area. They normally consist of two yellow lines (one solid and one dashed). The area designated on the dashed yellow line side is the Movement Area.

**TAXIWAY ↑**

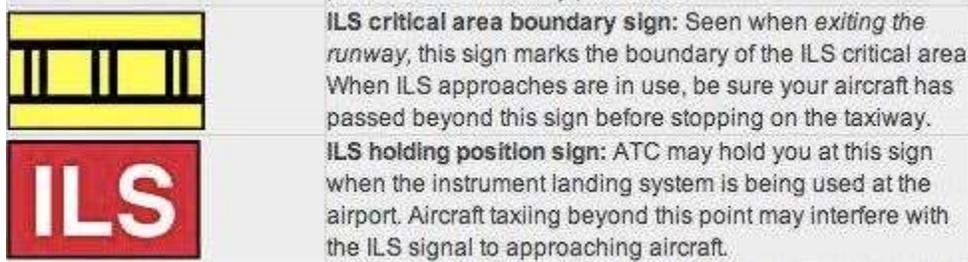


**RAMP ↓**

***ILS critical area markings***

On the runways equipped with an instrument landing system (ILS), it is possible for vehicles or aircraft near the runway to interfere with the ILS signal. The Erie International Airport is equipped with ILS Approaches on Runways 6. When ILS approaches are in progress, you may be asked by the controller to "...hold short of the ILS critical area." At the Erie International Airport there are ILS Hold Lines placed farther from the runway than the standard Holding Position Markings. There are two of these markings at the Erie International Airport, one on Taxiway Golf, short of the Approach of Runway 6 and the other on taxiway Foxtrot. If the

controller asks you to “...hold short of the ILS critical area” you must hold short at these markings. Where ILS holding position markings are present, there will always be an accompanying ILS holding position sign.



### ***Airport signs***

There are six types of signs found in the Erie International Airport movement area. These signs are also illuminated during nighttime operations. The six types of signs are:

1. **Mandatory Instruction Signs** – have a red background with a white inscription. These signs denote an entrance to a runway, a critical area, or a prohibited area. An example of a mandatory instruction sign is a runway holding position sign which is located at the holding position on taxiways that intersect a runway or on runways that intersect other runways.
2. **Location Signs** – are black with yellow inscription and a yellow border and do not have arrows. They are used to identify the taxiway where you are located.
3. **Direction Signs** – have yellow background with black inscription and always contain arrows which show the approximate direction of turn. These signs indicate directions of taxiways leading out of an intersection.
4. **Destination Signs** – have black inscriptions on a yellow background and always contain an arrow. These signs indicate the general direction to a location on the airport, such as civil aviation areas, or FBO's.
5. **Informational Signs** – have yellow backgrounds with black inscriptions. These signs advise such things as areas that cannot be seen from the control tower and applicable radio frequencies.
6. **Runway Distance Remaining Signs** – have a black background with white numbers. These signs are used to provide distance remaining information, in thousands of feet, to pilots during takeoff and landing operations. The signs are located along the sides of the runway.



### ***Airport lighting***

Airports use FAA-approved lighting systems and colors to guide pilots during nighttime operations. Vehicle operators should use extreme caution when driving on the AOA during night operations. The eye's ability to judge distance and recognize hazards is greatly reduced during the periods of darkness. The eye may take up to 30 minutes to adjust to night conditions. Additionally, other visual cues that can normally be seen during the day cannot be seen at night, causing navigating on the airport more difficult. Vehicle operators need to be extra vigilant and thoroughly familiar with the airport lighting system so that they can safely navigate during nighttime operations.

### ***Airport Beacon***

The airport beacon helps pilots identify and locate the airport at night. The airport beacon at the Erie International Airport is located on top of the terminal building. The beacon is normally operated from dusk till dawn and during times of reduced ground visibility. The beacon is coded with a rotating white and green light combination, indicating that the Erie International Airport is a civilian airport.

### ***Runway Edge Lights***

Runway edge lights consist of a single row of white lights bordering each side of the runway and lights identifying the runway threshold. Runway edge lights can be classified according to three intensity levels. High intensity runway lights (HIRLs) are the brightest runway lights available. Medium intensity runway lights (MIRLs) and low intensity runway lights (LIRLs) are, as their names indicate, dimmer in intensity. When ATCT is in operation the lights are adjusted by the air traffic controller. When ATCT is closed you can turn on and adjust the intensity of the

runway lights by tuning your transmitter to the common traffic advisory frequency (122.95) and keying the microphone.

Some runway edge lights incorporate yellow runway remaining lights on the last 2,000 feet or half the length of the runway, whichever is less, to inform of the amount of runway left. These lights are two-sided, so they appear white when viewed from the opposite end of the runway. At night, there are ways a pilot can determine where the runway begins. There is a row of green lights across the threshold. These lights are two sided. If you were approaching on the opposite end, they would appear red to mark the end of the runway that is usable for aircraft.

### ***Taxiway lighting***

Omni-directional taxiway lights outline the edges of the taxiway and are blue in color.

### ***Obstruction lighting***

Obstructions are marked at the Erie International Airport to warn pilots of hazardous objects during both daytime and nighttime operations. These obstructions are marked with a steady burning red color light.

### ***Wind direction indicators***

Pilots normally use the runway in which the wind is most favorable and will provide the best aircraft performance for takeoff and landing. The Erie International Airport utilizes wind socks to assist pilots by providing wind direction and velocity information. The wind sock extends out straighter in strong winds and will tend to move back and forth when the wind is gusty. The wind sock may be helpful for vehicle operators during the periods when ATCT is closed since the wind sock will usually point to the runway that would be favorable for use by most pilots. Vehicle operators, however, should not rely solely on wind sock information to estimate the direction of other aircraft traffic, since the airport is considered “uncontrolled” during the times when ATCT is closed. Vehicle operators must exercise extreme vigilance when operating in the runway environment and always monitor and perform common traffic advisory frequency communications and procedures.

### ***Runway incursion avoidance***

The official definition of a 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.” Runway incursions are primarily caused by errors associated with clearances, communication, airport surface movement, and positional awareness. Incursions take place in a complex and dynamic environment where root causes are difficult to isolate.

Runway incursions are further classified with respect to severity. The severity categorizations of runway incursions are listed below:

1. ***Category A*** - A serious incident in which a collision was narrowly avoided.
2. ***Category B*** - An incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.

3. **Category C** - An incident characterized by ample time and/or distance to avoid a collision.
4. **Category D** - Incident that meets the definition of runway incursion such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.

A surface incident is defined as any event where unauthorized or unapproved movement occurs within the movement area at non-runway locations such as taxiways,

# Runway safety

## ***Avoiding Runway Incursions***

There are several procedures that you can follow and precautions that you can take to avoid a runway incursion.

1. Before entering the AOA movement area, you should study the airport layout by reviewing the airport diagram and your intended route.
2. Strive for clear and unambiguous communication. Read back (in full) all clearances involving runway crossings, hold short, and hold instructions.
3. While driving, know your precise location and concentrate on your primary responsibilities. Don't become absorbed in other tasks, or conversation, while the vehicle is moving.
4. If unsure of your position on the airport, stop and ask for assistance.
5. Always look both ways before crossing or proceeding on a runway.
6. Monitor the appropriate radio frequencies for information regarding other aircraft cleared onto your runway for takeoff or landing. Be alert for aircraft which may be on other frequencies or without radio communication.
7. Always remain on the appropriate frequency, unless instructed by ATC.
8. Always use all available vehicle lighting including headlights, parking lights, and beacons. Especially during periods of reduced visibility or at night.
9. Report deteriorating or confusing airport markings, signs, and lighting to the Department of Operations.
10. Make sure you understand any instructions or procedures required by ATC.

## ***Runway safety area***

A runway safety area (RSA) is a defined area comprised of the surrounding surfaces of a runway that is prepared or suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from a runway. Aircraft, vehicles, and personnel are prohibited from entering the RSA unless having specific clearance from ATCT. Vehicles operators or personnel which mistakenly enter an RSA, or do not comply within the instructions given by ATCT for being in the RSA, will automatically be reasoned as a runway incursion.

It is important that personnel and vehicle operators understand the dimensional aspects of the RSA in the location that they will be working. On a taxiway or runway a holding position sign and/or holding position marking will indicate the beginning of the runway safety area for the adjacent runway.



***Air Carrier Operations and Authorized RSA Activity***

ATCT's primary objective is to maintain the full RSA free of objects, including large equipment and vehicles. Vehicles, mowing equipment and other large equipment (not including hand tools or small equipment that will not cause damage to an aircraft in case of a collision) are not considered acceptable objects in the safety area during air carrier aircraft operations except for the areas described as "Authorized RSA Activity."

Before allowing personnel or equipment in the RSA the Erie Regional Airport Authority is expected to make a runway closure a priority. However, in some cases, based on weather, traffic, and other factors, it may be necessary to gain access to the RSA without closing the runway to continue aircraft operations. Maintenance activity may be authorized in the RSA under the following conditions:

1. Activity in the RSA parallel to the runway sides –
  - a. Access by vehicular, mowing and other equipment is limited to areas more than 250 feet from the runway centerline or the current RSA unless the runway is closed or air carrier aircraft operations are restricted.
  - b. During air carrier operations, only personnel may enter this area. If necessary to drop off light or small equipment, a vehicle may be brought into the area between air carrier operations, provided it is then removed from the RSA immediately.
2. Activity in the RSA beyond the runway ends –
  - a. Access by vehicular, mowing and other equipment is limited to areas more than 250 feet from the runway end unless the runway is closed or air carrier aircraft operations are restricted.
  - b. During air carrier operations, only personnel may enter this area. If necessary to drop off light or small equipment, a vehicle may be brought into the area between air carrier operations, provided it is then removed from the RSA immediately.

The Erie Regional Airport Authority is responsible for ensuring that personnel working in or adjacent to the RSA know the boundaries of the RSA and the type of operations, so that they keep vehicles, mowing equipment and other large equipment clear of the RSA during air carrier aircraft operations. Aside from the authorized RSA activity described above, vehicles, mowing equipment and other large equipment in the RSA during an air carrier aircraft operation will be viewed as a violation.

### ***Critical Area***

Since the accuracy of the guidance signals provided by the ILS is significant to safety; the Erie International Airport has designated critical areas to protect aircraft from radio signal interference. ATC may ask you to hold short of the ILS Critical Area. On taxiways, you can identify the Critical Area by the combination of an ILS Hold Sign and an ILS Hold Marking. No activities, such as airfield mowing, will be allowed in critical areas during times when instrument approaches are in effect. Regardless of the weather conditions, personnel that need to perform work inside critical areas should always check with ATCT for permission before entering.

### ***Precision Obstacle Free Zone***

Similar to the critical area, the Precision Obstacle Free Zone (POFZ) protects aircraft when instrument approaches are in effect. The difference is that the POFZ doesn't protect navigation

signals; it protects the area near the threshold of the runway from unnecessary obstacles that may be hazardous when aircraft are making instrument approaches during periods when the visibility is extremely poor.

The POFZ is an 800 foot wide by 200 foot long area centered on the runway centerline adjacent to the runway threshold. The POFZ is only active when the ceiling (cloud layer) is less than 250 feet above the ground or the visibility is less than three-quarter ( $\frac{3}{4}$ ) statute miles. In addition, the POFZ is only active when an aircraft is on approach within two (2) miles of the runway.

Fortunately, at the Erie International Airport, the existing ILS critical area markings and signs that are positioned on the taxiways also accommodate the protection of the POFZ. However, persons needing to perform work near the thresholds of the runway, such as grass mowing, may be asked to remain clear of the POFZ by ATC. You must remain clear of the POFZ or the ILS Critical Area if told to do so.

# AOA Hazards

Many hazards are associated with the AOA environment. Anyone who operates on the AOA must be able to detect and avoid these dangerous hazards and situations. Further, they should know the proper procedures to take in regards to safety for themselves and others.

## ***Propellers***

Moving propellers pose danger to personnel, vehicles, and equipment. You should never walk or park equipment within the operating arc of a propeller. When the aircraft engines are running personnel should always stay in the pilot's field of vision. A good way to tell if in aircraft engine is about to start, or is already running, is to see if the aircraft's anti-collision lights are operating. These lights are red flashing beacons, and can usually be found on the tail or belly of the aircraft.

## ***Jet blast and weather hazards***

A jet using takeoff power can blast hurricane force winds over 200 feet behind the aircraft. Jet engines at idle thrust can produce winds of at least 35 mph. Engine blast can damage or even overturn an airplane or vehicle. To avoid excessive jet blast, you should stay a safe distance behind a jet with its engine operating, even when it is at idle thrust.

## ***Inclement weather hazards***

A variety of atmospheric and terrain conditions can produce visual illusions and a hazardous AOA operating environment. Weather hazards encountered on the AOA may include reduced visibility, thunderstorms, and snow and ice conditions. Rain, snow, and ice can obscure important visual markings and signs. AOA operators should be able to recognize and be familiar with these hazardous situations.

## ***Reduced visibility***

When visibility is reduced the ability to judge distances of other object is greatly affected. Vehicle operators should use headlights, parking lights, and beacons (if equipped), on all areas of the AOA, to increase their visibility to others. In addition, driving speeds should be adjusted so that the operator can accommodate greater reaction time.

Just as visibility affects vehicle drivers and personnel, poor visibility is also a challenge for pilots. Vehicle operators and ramp personnel should be aware that pilots may not see you while taxiing. Ramp personnel should always wear high-visibility clothing and utilize appropriate marshaling equipment such as lighted wands.

## ***Thunderstorms***

Thunderstorms are a significant threat to operators on the AOA. Thunderstorms can produce hazardous conditions such as poor visibility, heavy rain, strong winds, hail, lightning, and even tornados. Persons on the AOA should remain vigilant during the spring, summer, and fall seasons by monitoring weather forecasts for severe thunderstorms. When a severe thunderstorm warning is issued, AOA operators should immediately commence procedures to exit the AOA and take shelter.

Statistically, lightning contributes for more injuries and deaths than any other weather related phenomenon. Lightning will typically tend to strike the tallest object. Unfortunately, to a lightning bolt, you are the tallest object on the AOA. When you hear lightning in the airport vicinity, you should immediately exit the AOA. Fueling operations shall be terminated if lightning is detected within five (5) miles of the Erie International Airport.

It is recommended that AOA personnel review their company's severe weather plan procedures so that safety is never questioned during inclement weather events.

### ***Winter operations***

Snow & ice contributes to another weather hazard. These conditions produce slippery pavement surfaces. Signs and markings are usually obscured, making navigation on the AOA more difficult. Vehicle operators should give themselves greater stopping distances and give way to accommodate snow removal equipment. Also, operators should be aware of their vehicle limitations, especially in regards to its capability of maintaining traction. The use traction devices, such as tire-chains or tire-studs, are prohibited on the AOA.

During a snow storm event, snow removal crews make the clearing of runways and taxiways their first priority. Vehicle service and perimeter roads can be extremely hazardous for vehicle use. Vehicle operators should use good judgment on whether their vehicle can handle operation on these service roads. Normally, vehicles are required to use perimeter roads when making ramp transitions. However, if it is determined that you cannot use a perimeter road for ramp transition, you should contact Airfield Operations for further guidance during winter operations. Operations can either escort you or make special arrangements with the control tower so that you can take alternate routes if necessary.

### ***Foreign Object Debris***

Foreign object debris (FOD) at airports includes any object found in an inappropriate location that -- as a result of being in that location -- can damage equipment or injure airplane or airport personnel. The resulting damage is estimated to cost the aerospace industry \$4 billion a year. Airports, airlines, and airport tenants can reduce this cost by taking steps to prevent airport FOD.

### ***Sources of FOD***

FOD includes a wide range of material, including loose hardware, pavement fragments, catering supplies, building materials, rocks, sand, pieces of luggage, and even wildlife. FOD is found at terminal gates, cargo aprons, taxiways, runways, and run-up pads. It causes damage through direct contact with airplanes, such as by cutting airplane tires or being ingested into engines, or as a result of being thrown by jet blast and damaging airplanes or injuring people.

Airlines and airport tenants generate much of the FOD found in gate areas, service roads, and baggage makeup areas. Refueling, catering, cabin cleaning, and baggage and cargo handling can produce broken materials. Personal belongings, such as pens, coins, identification badges, hats, soda cans, paperwork, and any other object that airport or airline personnel carry can become FOD if inadvertently left in an inappropriate location.

The deterioration, maintenance, and construction of the airport infrastructure can contribute to FOD. For example, pieces of concrete can break loose from holes in pavement or from fatigue corner cracks, and building materials can fall from construction vehicles or be blown from gate areas onto airplane maneuvering areas. Broken pieces of pavement can collect at the edge of the gate area and be carried onto the airplane maneuvering area by the tires of vehicular ground support equipment (GSE). FOD typically peaks during the early spring, when airports often begin construction activities, and during the winter because of operations in snow and ice.

### ***FOD and maintenance costs***

The effect of Foreign Object Debris (FOD) on maintenance costs can be significant. For example, the cost to repair a FOD-damaged engine can easily exceed \$1 million, which can easily top 20 percent of the original purchase cost. FOD can also incur extensive indirect costs, including:

1. Flight delays and cancellations, leading to a loss of customers
2. Schedule disruptions caused by the need to reposition airplane flight crews
3. Potential liability because of injury
4. Additional work for airline management and staff

### ***FOD prevention***

Identifying the sources of FOD is the first and most important step in preventable measures. It is particularly important to alert personnel of the safety hazards created by debris. In addition, employees should be trained to recognize the causes and contributing factors to FOD that are related to their work routine. Personnel on the AOA should create good work habits and follow correct procedures. Designated storage areas for ladders, hoses, tools, and other work aids should be established. Personnel should practice good housekeeping technique and account for all tools, hardware, and equipment.

Vehicles should be inspected for traces of mud, dirt, and debris prior to entering the AOA. These FOD producing materials should be washed off the vehicle before being used on the AOA. If your vehicle inadvertently leaves debris on the AOA you should contact the Department of Operations so that they can coordinate prompt removal of the hazard.

You can help make Erie International Airport safer by placing all your trash in a sturdy, covered container that cannot be blown over by wind, prop wash, jet blast. Also, get in the habit of looking for, stopping and picking up any FOD lying on the ground. Keep an eye out for nails, bolts and other items that can puncture tires or be sucked into a jet engine. If you discover a serious debris problem greater than what you can alleviate yourself, report it immediately to the Erie International Airport Airfield Operations at (814) 833-4258.

### ***Accidents and emergencies***

If immediate emergency response is needed, such as the need for medical services, a 911 call should be made without delay. Operators involved in or in witness to an accident on the airport that result in injury to a person or damage to an aircraft, airport property, or another vehicle shall report the accident immediately to The Airport Police at (814) 397-9911. The operator will immediately stop and remain at the scene of the accident. Render reasonable assistance, if capable, to any person injured in the accident. Provide and surrender the following to any

responding ERAA personnel: name and address, airport ID card, state driver's license, and any information such personnel need to complete a motor vehicle accident report.

**IN ALL CASES OF EMERGENCY CALL 911**

# Radio Communications

Movement areas are defined as the runways, taxiways, and other areas of the airport that are used for taxiing, hover taxiing, and takeoff and landing of aircraft, exclusive of loading ramps and aircraft parking areas. Movement areas are considered “positive control,” meaning that all vehicle operators will need permission from ATC before entering the area.

Radio communications are a critical link in the ATC system. The link can be a strong bond between you and the controller or it can be broken with surprising speed and disastrous results. To make communication with ATC as effective as possible, specific procedures and terminology have been developed. Nearly any place you need to go on the AOA Movement Area requires radio contact, so you need to learn this unique way of communicating.

## *Using the radio*

When you are using the radio, it is important to speak in a professional manner which ensures that others understand the message you are trying to convey. Slang, CB jargon, and incorrect radio procedures can compromise your safety and the safety of others.

Radio transmissions should be as brief as possible to help avoid frequency congestion. Before you depress the microphone button (key the mike), think of what you will say and listen for a few moments to make sure that someone else is not already talking or waiting for a response. You should state who you are, where you are, and what you want to do. Any other information may be excessive, especially when the airport environment is busy.

When you are ready to talk, hold the mike very close to your lips. Then, key the mike and speak into it in a normal, conversational tone. When communicating with ATCT, it may take a few moments for the controller to respond. If you do not receive any response, try again. If there is no sound coming from your speaker, check your radio to see if it is working properly. Make sure the mike is not stuck in the transmitting position, since this can block other transmissions and disrupt communications for an extended period of time.

## *Phonetic alphabet*

Since letters such as B, C, D, and E have similar sounds, they can easily be mistaken for one another, especially during radio transmissions. The phonetic alphabet was developed to avoid misunderstandings of this type. You will use the phonetic alphabet as a routine measure of communication on the airport. Operators on the movement area will use the phonetic alphabet to identify taxiways on the AOA. For example, Taxiway “A” is pronounced as taxiway “alpha”.

A – Alpha (AL-FAH)	N – November (NO-VEM-BER)
B – Bravo (BRAH-VOH)	O – Oscar (OSS-KAH)
C – Charlie (CHAR-LEE)	P – Papa (PAH-PAH)
D – Delta (DELL-TAH)	Q – Quebec (KEH-BECK)
E – Echo (ECK-OH)	R – Romeo (ROW-ME-OH)
F – Foxtrot (FOKS-TROT)	S – Sierra (SEE-AIR-RAH)
G – Golf (GOLF)	T – Tango (TANG-GO)
H – Hotel (HOH-TEL)	U – Uniform (YOU-NEE-FORM)
I – India (IN-DEE-AH)	V – Victor (VIK-TEH)
J – Juliet (JEW-LEE-ETT)	W – Whiskey (WISS-KEY)
K – Kilo (KEY-LOH)	X – X-ray (ECKS-RAY)
L – Lima (LEE-MAH)	Y – Yankee (YANG-KEY)
M – Mike (MIKE)	Z – Zulu (ZOO-LOO)

### ***Using numbers on the radio***

When you transmit or receive numbers over the radio, each number is spoken the same way you are used to saying it, with the exception of the number nine (9). It is spoken as “niner”. When you state radio frequencies, the decimal is pronounced as “point.”

### ***Aviation phraseology***

The following are communication phrases used by pilots and air traffic controllers. It is absolutely necessary that vehicle operators, in the AOA movement area, be familiar with these phrases and meanings.

Acknowledge - Let me know you have received and understand this message

Affirmative – Yes

Confirm - What I heard is (message)..... Is that correct?

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

Expedite - Used when prompt compliance is required to avoid the development of an imminent situation

Go ahead - State your message (IT NEVER MEANS PROCEED)

Hold - Stop where you are

Hold short of (designated runway or taxiway intersection) - Proceed to, but hold short of a specific point

How do you hear me? - How well is this radio working

Negative - No, or permission denied, or 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 all of your last transmission (Should not be used to answer a yes or no question)

Say again - Repeat your last transmission

Stand by - Wait a moment, I will call you back (Used when a delay in transmitting is requested by the caller)

Unable - I cannot comply with a specific instruction, request, or clearance

Verify - Request confirmation of information

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

### ***Controlled –VS- Uncontrolled***

There are two types of airport environments that you will operate in. A controlled airport is an airport that has an operating control tower and is sometimes referred to as a tower airport. Since all aircraft in the vicinity, as well as those aircraft and vehicles on the ground, are subject to instructions issued by air traffic control (ATC), a two-way radio is required for you to operate in the controlled airport environment.

Additionally, the Erie International Airport includes an environment called an uncontrolled airport. The Erie International Airport is considered uncontrolled during the periods when the ATCT is not in operation. At uncontrolled airports, or non-tower airports, control of traffic in the air or on the ground is not exercised. During uncontrolled operations, pilots and vehicle operators use the common traffic advisory frequency (CTAF) to transmit their intentions to others. Also, you are responsible for determining what actions to take to avoid other airport traffic.

The Erie International Airport ATCT hours of operation are from 0600 to 0000 Eastern Time. If you not sure if the control tower is open during a period when you need to go on the movement area, you should always attempt to contact the control tower on the ground control frequency prior to entering the movement area.

### ***Erie International Airport frequencies***

There are many frequencies that pilots use to communicate with ATC during different segments of their flight. Vehicle operators must memorize two distinct VHF frequencies. These are the ground control frequency and the tower control frequency. The Erie International Airport ATCT is located in Erie Pennsylvania, so when communicating with the control tower you will refer to them as Erie ground (or tower).

1. The Erie Ground Control frequency is – 121.90 MHz
2. The Erie Tower Control frequency is – 118.10 MHz
3. The Erie CATF frequency of 122.95 MHz also serves as the common traffic advisory frequency (CTAF) when the control tower is closed.

Under most cases, you will communicate while tuned to the ground control frequency. However, there are certain circumstances when you will be asked by ATC to change over to the tower frequency. This is usually the case when you are requesting access to an active runway.

Normally, if you are just crossing a runway at a taxiway intersection and not needing to spend any length of time on the runway, you will not need to change frequencies. If you are asked by ATC to “contact tower” you must acknowledge and change to the tower frequency when told to do so.

### ***Radio communication procedures***

When ATCT is open a vehicle driver must obtain permission from the air traffic controller prior to entering the movement area. During periods when the control tower is closed vehicle operators must advise their intentions on the Erie tower frequency. Only trained and authorized drivers may enter the AOA movement area. This area includes runways, taxiways, safety areas and ILS critical areas.

### ***When ATCT is open (Controlled)***

The following steps should be used:

1. Study the airport diagram to determine you location and the proposed (or anticipated) route to your destination.
2. Turn on your vehicles rotating beacon.
3. Tune your two-way radio to ground control frequency 121.9 MHz.
4. Before making a transmission, listen. Don't step on someone else's transmission and don't jump in the middle of another communication. Think about what you will say.
5. In most communications the following RULES OF THUMB are a good way to remember how to talk on the radio. When the frequency is clear, tell the ground controller:
  - a. Who you are
  - b. Where you are
  - c. What you want to do

A typical radio conversation/transmission would go like this:

**Vehicle Operator** - "Erie Ground, Mobile 9"

**ATC Controller** - "Mobile 9, Erie Ground"

**Vehicle Operator** - "Erie Ground, Mobile 9, on the terminal ramp, request clearance to drive on taxiway Charlie and cross runway 2 to taxiway Alpha"

**ATC Controller** - "Mobile 9, proceed on taxiway Charlie cross runway 2 and drive on taxiway Alpha"

**Vehicle Operator** - "Mobile 9 is driving on taxiway Charlie, crossing runway 2 and driving on taxiway Alpha"

You should always read back all of your clearance from the air traffic controller. A blank notepad is very handy for jotting down long route clearances. Common procedure is to state your call sign after reading back your clearance.

If the ground controller gives you instructions to hold short of a runway or taxiway, you must read back the holding instructions to the controller. **THIS IS MANDATORY.**

**IT IS RECOMMENDED THAT DURING OPERATIONS WHEN ATCT IS OPEN AND YOU DON'T HEAR ANY OTHER RADIO ACTIVITY FOR A PERIOD OF TIME, THAT YOU "CHECK-IN" WITH ATCT TO MAKE SURE THAT THERE ARE NO RADIO PROBLEMS.**

Example:

**Vehicle Operator** – "Erie Tower, Mobile 9 Radio Check"

**ATC Controller** – "Mobile 9, Erie Tower you are Loud and Clear how me?"

**Vehicle Operator** – "Loud and Clear also, Mobile 9"

Entering a movement area without prior permission from ground control constitutes an incursion. This act is a violation of FAA and Airport Rules and Regulations and is punishable by fines, suspension, and/or revocation of driving privileges.

#### ***When ATCT is Closed (Uncontrolled midnight-0600)***

The following procedures apply at Erie International when the ATCT is closed.

When operating at an airport while the ATCT is closed, you should broadcast your intentions on the Tower frequency (118.10), prior to movement on the movement area. Operators, who remain on the movement area for prolonged periods of time such as during snow removal or a lighting inspection, should continually announce their presence on the movement area every few minutes. In all situations, the vehicle operator is ultimately responsible for the safe movement on the movement area. Broadcast your intentions, look and LISTEN for other traffic, and most importantly, be aware of the movement area environment before proceeding.

A typical radio conversation would go like this:

**Vehicle Operator** – “Erie Traffic...airport vehicle driving taxiway Alpha to Runway 24...at Erie”

Note: you should always start and end your intentions with the location of “Erie”

**Aircraft Operator** – “Erie Traffic...Cessna 2345U on left downwind landing runway 24...at Erie”

Note: There is traffic using runway 24!

**Vehicle Operator** – “Erie Traffic...airport vehicle will hold short of runway 24 for landing traffic...at Erie”

**Aircraft Operator** – “Erie Traffic...Cessna 2345U is clear of Runway 24 and taxiing to the FBO...at Erie”

Note: the aircraft has landed and cleared the runway and is taxiing to the FBO.

**Vehicle Operator** – “Erie Traffic...airport vehicle is proceeding runway 24 full length for a runway inspection...at Erie”

Note: Only proceed onto the runway when you are certain there are no other traffic conflicts!

### ***Escort Communications***

There are some occasions when there will be a need for more than one vehicle to enter the movement area. Often times this is during airport construction when you are designated to escort other equipment onto the airfield. It is important to communicate with ATCT appropriately during escort. Failure to do so will result in an incursion or surface incident!

Example:

**Vehicle Operator** – “Erie Tower, Mobile 9 and Company request into the safety area of runway 24”

**ATC Controller** – “Mobile 9 and Company, proceed into the safety area of runway 24 and remain clear of runway 24”

**Vehicle Operator** – “Cleared into the safety area of runway 24 and will remain clear of runway 24, Mobile 9 and Company”

### ***Lost communications procedures***

If you lose two-way radio capability with the ground controller while in the movement areas DO NOT PANIC. Check the radio volume, channel, or squelch level. If you are still unable to communicate with ground control, perform the lost communication procedure as follows:

1. If you are on a runway, clear the runway surface and safety areas. Exit at the closest exit taxiway or even take the grass if necessary.
2. Point the vehicle headlights towards the control tower.
3. Flash the vehicle headlights to attract the controller’s attention
4. Wait for a light gun signal and comply with the signal sent by the controller

**Light gun signals**

When you get the ground controllers attention with the vehicle headlights, he/she will point a light gun at your vehicle. Different colored signals have different meanings. The following signals are universally accepted:



## Lessons learned events

- On the evening of January 17, 2014 at about 2200 hours an airline employee operating a ground service baggage tug drove out and back traveling on taxiway C, crossing runway 2-20 then driving into the grassy area by the electrical vault in an attempt to pick up an engine cover that blew away during high winds.
  - The airline employee did not make any attempt to notify airfield OPS or anyone else prior to entering the movement area.
  - The airline employee did not have movement area drivers training and was not authorized to operate within the movement area.
  - Individuals are reminded to be aware of their surroundings.
  - Individuals are reminded to know the boundary area markings and lighting for movement/non-movement areas.
  - Individuals are reminded the penalties for movement area violations.
  
- On June 3, 2009 at about 1610 hours ERI ATCT observed an airport contractor drive across taxiway D to the terminal ramp without ATCT clearance.
  - The contractor entered the FBO through a perimeter gate and was traveling to an observation point on the east side of the airport.
  - The contractor intended to drive across the non-movement area service road.
    - The contractor had movement area drivers training
      - Completed within 30 days of the violation
    - The vehicle was equipped with an operational aviation radio
    - The vehicle was equipped with an operational amber beacon
    - The vehicle was authorized to operate within the movement areas
  - Individuals are reminded to be aware of their surroundings.
  - Individuals are reminded to know the boundary area markings and lighting for movement/non-movement areas.
  - Individuals are reminded the penalties for movement area violations.
  
- On August 29, 2005 at about 1035 hours ERI airport employees observed another airport employee drive across taxiway D and F to avoid an aircraft parked on the FBO apron. The airport employee was in the area assisting with a full scale disaster drill.
  - The airport employee was conducting work within the non-movement area.
  - The airport employee did not have movement area drivers training
  - The airport employee did not have an aviation radio
  - The airport employee did not have an amber beacon
  - The airport employee was operating a ground service cart.
  - Individuals are reminded to be aware of their surroundings.
  - Individuals are reminded to know the boundary area markings and lighting for movement/non-movement areas.
  - Individuals are reminded the penalties for movement area violations.
  
- On August 30, 2000 at about 0945 hours an ambulance that was on airport property for a political rally at the FBO drove on and across taxiways F and D exiting the airport through a perimeter gate.

- The ambulance driver was conducting work within the non-movement area.
  - The ambulance driver did not have movement area drivers training
  - The ambulance driver was not familiar with the airport environment
  - The ambulance driver did not have an aviation radio
  - The ambulance driver did not have an amber beacon
  - The airport authority failed to properly escort and control vehicles participating in the event.
- On August 20, 2000 at about 1235 hours a lead escort vehicle for associated political rally, diverted from the assigned route on the advice of a secret service agent. The motorcade drove onto taxiway F and D to the FBO apron.
    - The motorcade was conducting work within the non-movement area.
    - The motorcade drivers did not have movement area drivers training
    - The motorcade vehicles did not have an aviation radio
    - The motorcade vehicles did not have an amber beacon
    - Individuals are reminded to be aware of their surroundings.
    - The airport authority failed to properly escort and control vehicles participating in the event.

## APPENDIX A

### GROUND VEHICLE ACCESS PROGRAM TRAINING CURRICULUM

**NOTE:** The purpose of the Ground Vehicle Access Program Training Curriculum is to provide airport operators with a comprehensive list of training topics for educating vehicle operators who may have access to the airside of an airport. Each individual airport has unique situations that might require site-specific training. Airport operators may use this training curriculum as a guide for developing and implementing a detailed training program tailored to the airport's individual situation.

The purpose of a training program is to provide vehicle operators with the level of training necessary for their positions so they are capable of operating safely on the airside of an airport. Specific programs may be tailored to account for the items listed below:

1. Various infield aircraft navigation aids
2. Identification of a given point on a grid map or other standard map used at the airport
3. Applicable airport rules, regulations, or procedures pertaining to vehicle operations
4. Airport layout, including designation of runways and taxiways
5. Boundaries of movement areas
6. Interpretation and color coding of airfield signs, pavement markings, and lighting
7. Location and understanding of critical areas associated with instrument landing system (ILS) and very high frequency omnidirectional ranges (VORs)
8. Proper terminology (including phonetic alphabet) and procedures for radio communications with the airport traffic control tower (ATCT)
9. ATCT light gun signals
10. Established routes for emergency response vehicles
11. Dangers associated with jet blast and prop wash
12. Traffic patterns associated with each runway (left or right) and location of each leg; i.e., downwind, base, final, and crosswind
13. Situational awareness

An airport operator may choose to develop customized training programs for vehicle operators who are restricted to operating ground vehicles only on ramps and apron areas.

## Areas of Training

**All drivers should have training in the following areas:**

1. Discussion of Runway Incursions, Airfield Safety, and Security

Training Outcome(s) – Trainee should be able to define a runway incursion and explain the benefits of airfield safety/security.

2. Definitions and Terms

Training Outcome(s) – Trainee should be knowledgeable of the terms used on an airport.

3. Vehicle Operating Requirements

- a. Authorized Vehicles and Vehicle Identification

- b. Vehicle Lighting

- c. Vehicle Insurance

- d. Vehicle Inspection

- e. Vehicle Parking

- f. Accident Reporting

- g. Perimeter Roadways

- h. Aircraft Lighting

4. Rules and Regulations

- i. Review

- j. Noncompliance/Penalties

Training Outcome(s) – Trainee should be knowledgeable of ground vehicle rules and regulations.

5. Testing

- k. Written Test

- l. Practical Test

Training Outcome(s) – Trainee should be able to pass a written examination with a minimum score of 90 percent.

**In addition to items 1–5, instruction for drivers authorized to drive on the movement area should also include those**

**subject areas identified under Airport Familiarization and Communications.**

6. Airport Familiarization

- m. Runway Configuration/Safety Area

- n. Taxiway Configuration/Safety Area

- o. Movement Areas and Non-Movement Areas

- p. Confusing Areas

- q. Airport Lighting

- (1) Runway

- Runway Edge Lights

- Touchdown Zone

- Taxiway Lead-Off Lights

- Threshold

- Runway Approach Light System

- (2) Taxiway

- Taxiway Edge Lights

- Taxiway Centerline Lights

- Runway Guard Lights

- r. Airfield Signage

- Runway Position Holding Sign

- Taxiway Location Sign

- ILS Critical Area Sign

- Direction Sign

- Distance Remaining Sign

- s. Airfield Markings

- (3) Runways

- Centerline

- Edge Markings

- Runway ID Numbers

- Threshold Markings

- Hold Short Lines

- (4) Taxiways

- Hold Lines

- ILS Hold Line

- Geographic Position Markings
- Centerline
- Edge Markings

**(5) ILS Critical Areas**

**(6) Non-Movement Area Boundary Marking**

**t. Airport NAVAIDS and Visual Approach Aids**

- Location
- Non-interference

Training Outcome(s) – Trainee should be able to label all critical parts on the airport and explain the purpose of all marking, lighting, and signs on the airport.

**7. Communications**

**u. Ground Vehicle Communications**

**(7) Radio Frequencies**

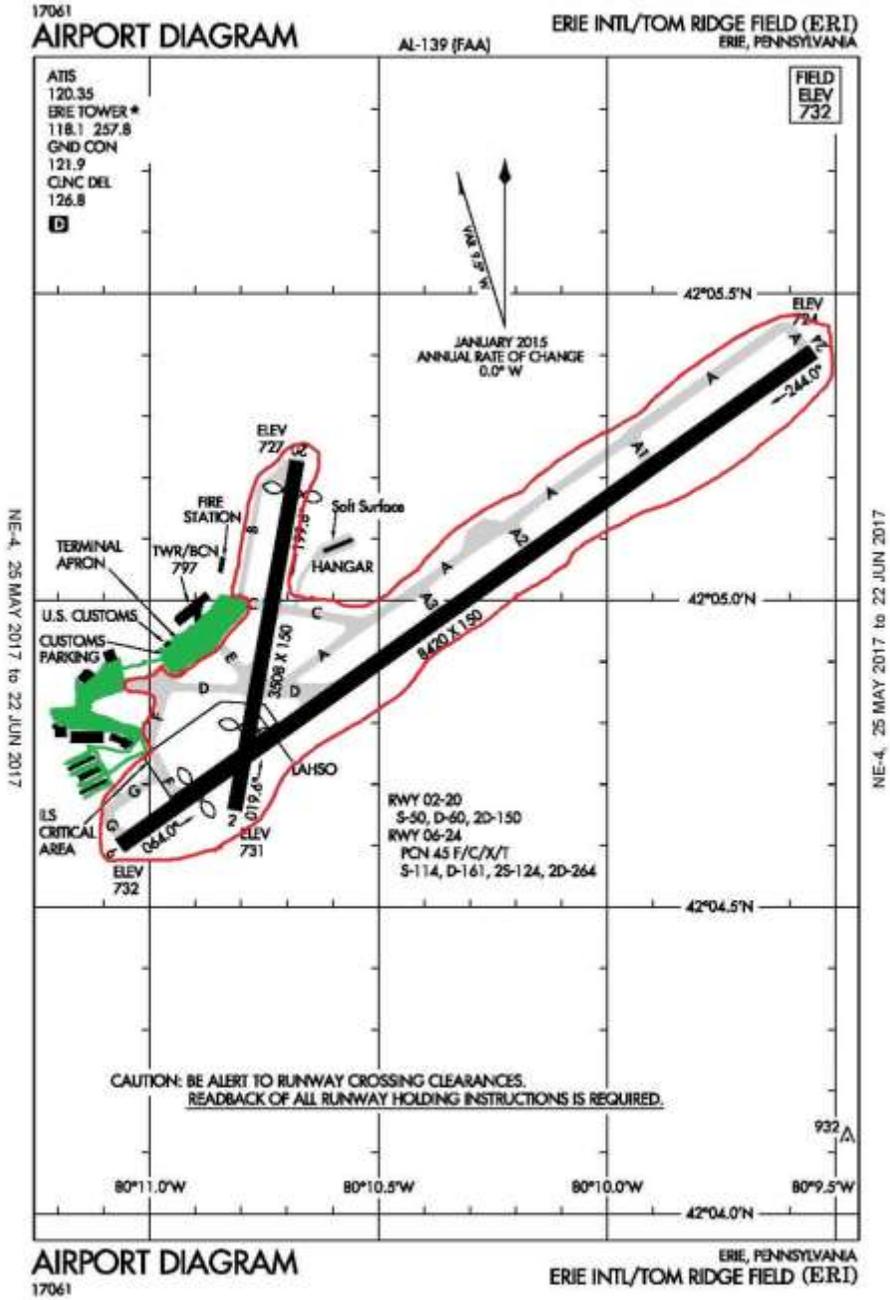
**(8) Procedural Words and Phrases**

- v. Aviation Phonetic Alphabet**
- w. Aviation Terminology**
- x. Procedures for Contacting the ATCT**
- y. Airfield Communications at Airports Without Operating ATCT**
- z. Light Gun Signals**
  - Description of Light Gun and How to Signal Tower

**aa. Lost Communications Procedures**

Training Outcome(s) – Trainee should be able to adequately send and receive radio messages.

**Appendix B – Movement/non-movement area map**  
**Non-Movement area within GREEN areas**  
**Movement area within RED areas**





## Appendix D – Runway safety areas



## **Appendix E – AOA operators training guide**

The Vehicle and Pedestrian Handbook of AOA Knowledge was developed to provide information and procedures for all AOA operators. Therefore, it may not be necessary for all individuals seeking AOA operator privileges to study the entire handbook. This may be the case if the individual does not need access to the movement area and only needs to be trained in the subject areas applicable for the non-movement areas.

AOA applicants are encouraged to use this training guide to help them understand which subject areas that they will need to be proficient in. This guide will be useful for both initial and recurrent training.

### **AOA Movement Area Applicants**

Since AOA Movement Area Operators are authorized unescorted access to all areas of the AOA, they must thoroughly know and understand all subjects described in the Vehicle and Pedestrian Handbook.

Movement Area Study Sequence:

1. Introduction
2. Drivers Training
3. Non-Compliance
4. Definitions
5. Regulations
6. The Airport Operating Area
7. Airport Visual Aids
8. Runway Safety
9. AOA Hazards
10. Radio Communications
11. Appendix A
12. Appendix B
13. Appendix C

### ***AOA Driver Practical Evaluation Standards***

The AOA Driver Practical Evaluation Standards was developed to establish standards for applicants taking the practical portion of the AOA Drivers Evaluation. Designated examiners shall conduct practical evaluations in compliance with these standards. Applicants should find these standards helpful during training and when preparing for the practical evaluation.

The examiner is not required to follow the precise order in which these tasks appear. The examiner may change the sequence or combine tasks with similar objectives to have an orderly and efficient flow of the practical evaluation. The examiner is expected to use good judgment during all portions of the practical evaluation.

#### **Tasks**

The AOA Driver Applicant shall –

1. Follow AOA rules and procedures including speed limits and right-of-way
2. Exhibit knowledge of the elements related to radio communications and ATC light signals
3. Select appropriate frequencies

4. Transmit using recommended phraseology and technique
5. Acknowledge radio communications and comply with ATC instructions
6. Exhibit knowledge of the elements related to runway safety. This shall include prevention of runway incursions, collision avoidance, access to, and operation in, movement areas & safety areas, and ILS critical areas.
7. Comply with airport taxiway and runway markings, signs, lighting, ATC clearances, and instructions.
8. Recognize and avoid potential hazards
9. Exhibit knowledge of the elements related to night orientation, lighting systems, and the safety precautions unique to night operations.

## **Appendix F AOA Drivers Training Practical Skills Evaluation**

### **Evaluators guide**

Note: as the evaluator if you feel there is any unsafe operation or conditions you will immediately take control of the situation and if necessary assume control of all communications and operations of the vehicle to ensure safe operation. As the evaluator you may terminate the practical skills examination at any point in time.

- Evaluator will have a portable aviation radio to be used for emergency ATCT communications and the evaluator will verify the operation prior to taking the examination.
- Evaluator will have an airport layout map
- Evaluator will contact ATCT and inform the ground controller that you will be conducting a AOA drivers practical skills examination at least 5 minutes before beginning the examination.
- Evaluator will conduct ID and vehicle inspection before the operator's vehicle enters the airport regardless of location.
- Evaluator will verify the operators state issued driver's license
- Evaluator will verify operators company vehicle insurance and registration
- Evaluator will verify the operators vehicle has current inspection
- Evaluator will verify the operators vehicle amber beacon operation
- Identify the vehicle call sign
- Verify aviation radio is operational
- Does operator know how to operate the radio (circle) YES or NO
- Verify operator knows ground frequency (circle) YES or NO
- Instruct the operator conduct a radio check with ATCT
  - Was the transmission clear and readable (circle) YES or NO
  - Did operator transmit on the correct frequency (circle) YES or NO
  - Did the operator identify the vehicle call sign (circle) YES or NO
- Using the airport layout map have the operator identify the current location
  - Does the operator identify the current location (circle) YES or NO
- Using the airport layout map identify the warm up pad and instruct the operator to obtain ATCT clearance to drive to and stop in the warm up pad and hold short of taxiway A
  - Did the operator transmit in a clear and concise manner (circle) YES or NO
  - Did the operator read back instructions properly (circle) YES or NO
  - Did the operator drive the vehicle in a safe manner at an acceptable speed (circle) YES or NO
- Using the airport layout map identify the approach end of runway 24
  - Instruct the operator to obtain ATCT clearance to drive to and stop at the hold short lines at the approach end of runway 24.
  - Did the operator transmit in a clear and concise manner (circle) YES or NO
  - Did the operator read back instructions properly (circle) YES or NO
  - Did the operator drive the vehicle in a safe manner at an acceptable speed (circle) YES or NO
  - Did the operator stop at the hold short lines? (circle) YES or NO
- Using the airport layout map identify the approach end of runway 6

- Instruct the operator to obtain ATCT clearance to drive to the approach end of runway 6, exit runway 6 clearing the runway at taxiway G and stop on taxiway G.
- Did the operator transmit in a clear and concise manner (circle) YES or NO
- Did the operator read back instructions properly (circle) YES or NO
- Did the operator drive the vehicle in a safe manner at an acceptable speed (circle) YES or NO
- Did the operator stop beyond the hold short lines (circle) YES or NO
- Did the operator report clear of the runway (circle) YES or NO
- Using the airport layout map identify the terminal ramp.
  - Instruct the operator to obtain ATCT clearance to drive to and stop on the terminal ramp traveling on taxiway G, F and D.
  - Did the operator transmit in a clear and concise manner (circle) YES or NO
  - Did the operator read back instructions properly (circle) YES or NO
  - Did the operator drive the vehicle in a safe manner at an acceptable speed (circle) YES or NO
  - Did the operator report clear of the movement area (circle) YES or NO
- Using the airport layout map identify gate 3/fire station
  - Instruct the operator to drive to gate 3 and exit the airport
  - Did the operator wait for the gate to close (circle) YES or NO
- Review the driving skills examination with them.
- Evaluator and operator sign and date the examination form and the instructor will indicate pass or fail.
- Inform the badging office the results of the examination.
- Badging office will provide the Administration Manager the original AOA Drivers Training Practical Skills Examination Form, copy will be attached to the individuals ID application.

Evaluator's printed name \_\_\_\_\_

Evaluator's signature and date \_\_\_\_\_

Is the operator eligible to receive driving privileges (circle) YES or NO If NO indicate reasons, using a separate sheet if needed

Operators printed name \_\_\_\_\_

Operators signature and date \_\_\_\_\_

## **Appendix G – Pedestrian and ground vehicles, Erie International Airport**

### ***Limiting Access - Personnel and Equipment***

Pedestrians and ground vehicles authorized by the Executive Director, to operate on movement areas and safety areas at the airport are limited to those pedestrians and vehicles necessary for airport operations and include the following type of vehicles:

1. Airport owned vehicles equipped with ground-to-air (ATCT) radio and roof top beacon;
2. FAA Airway Facilities vehicles authorized for maintenance of FAA equipment and equipped with ground-to-air (ATCT) radio and roof top beacon;
3. NorthCoast Air owned vehicles equipped ground-to-air (ATCT) radio and equipped with roof top beacon;
4. Authorized construction vehicles: Other individuals who need access to the movement areas are escorted by qualified personnel or they are required to complete the airport's ground vehicle training program prior to operating a vehicle equipped with a roof top beacon or flag, on the aircraft movement area. Copies of the airport's ground vehicle procedures are distributed to all employees authorized to operate a vehicle on the movement areas or safety areas.

### ***Controls***

The majority of the AOA is enclosed by the airport perimeter fence. The portions that are not fenced are bordered by various Erie Regional Airport Authority tenant buildings. The vehicle and Pedestrian gates along the perimeter that are controlled by the Erie Regional Airport Authority use a variety of access control systems, computer access system, Best Key System. Warning signs are posted at each vehicle gate allowing direct access to the secured area. At least one sign is visible from any point along the perimeter fence, (adjacent to the secured area) with no more than 150 feet between signs.

### ***Procedures***

When the Erie International Airport FAA Air Traffic Control Tower is in operation, each pedestrian and ground vehicle in the movement or safety areas is controlled by one of the following:

1. Two-way radio communications between each pedestrian, or vehicle and tower;
2. An escort with two-way radio communications with the tower that is accompanying a pedestrian, or vehicle without a radio;
3. Measures authorized by the ERI FAA Tower Manager and Executive Director for controlling pedestrians and vehicles; such as signs, signals, or guards, when it is not operationally practical to have two-way radio communications between the tower and the pedestrian, vehicle or escort.
4. The driver is the sole radio operator and is responsible for vehicle and ATC radio communications.

### ***Training of Employees Authorized to Operate on the Movement Area and Safety Areas***

All persons driving on the Aircraft Operating Area (AOA) must be authorized by the Executive Director of the Erie International Airport. All vehicle operators must possess a valid driver's license from their state of residence to be authorized AOA driving privileges. All vehicle operators must successfully complete the Airfield Driver's Safety Course. The Airfield Driver's

Safety Course for vehicle operators consists of both initial and semiannual recurrent training. Each AOA driver is required to complete annual refresher training each year to maintain valid driver's privileges on the Erie International Airport. Seasonal considerations and hazards, particular to operating on the AOA, will be identified during the annual refresher training. Failure to participate in this required annual training will result in the revocation of AOA privileges for the individual and the individual will be required to successfully complete all phases of the AOA drivers training program.

At the conclusion of the Airfield Driver's Safety Course, a written examination consisting of both multiple choice and true and false questions will be administered. Test questions will consist of material taken from the Airfield Driver's Safety Course Manual. A minimum score of 90% is required to pass the test.

Applicants who fail the retest examination will be instructed to take adequate time to thoroughly study and review the information contained in the Airfield Driver's Safety Manual and will then be allowed to test again during the next scheduled training class. These individuals will not be permitted to operate within the AOA during this interim period unless accompanied by an individual authorized to operate on the AOA.

A Letter of Agreement with ATCT regarding ground vehicle operation describes procedures that ground vehicles are required to operate under as well as a list of approved vehicle call signs and is depicted in Appendix G.

### ***Consequences of Non-Compliance***

Enforcement of the pedestrian and ground vehicle procedures and rules applicable to airport employees, tenants and contractors shall be handled by the Airport Police Department.

In the event a report is received of unauthorized vehicles or persons on the movement area, an airport operations vehicle, or airport law enforcement vehicle will be dispatched to intercept and escort the violator from the area. A report will be prepared and kept on file concerning all incidents. Appropriate corrective action will be taken as determined by the Executive Director. Surveillance shall be maintained to ensure that only authorized vehicles operate on the movement areas, ensure compliance with established rules and that appropriate action is taken when violations are observed or reported.

Should an individual violate Erie International Airport procedures on the operation of ground vehicles or should an individual have a runway incursion, that individual's airport issued Airport Identification Badge will be immediately confiscated and the individual will be removed/escorted from the movement area.

**First Offense:**

1. The individual's SIDA badge will be confiscated.
2. The individual will be required to submit a written report detailing the surface incident to the Executive Director of the Erie International Airport. The written report must be detailed and acceptable to the Executive Director.
3. At a minimum, the individual will receive a permanent letter of noncompliance of federal regulation. If the violator is not an ERAA employee such as a tenant or contractor the violator's organization will receive notification of non-compliance of federal regulations and driving privileges will be revoked for the driver for a minimum of 3 calendar days.
4. Upon successful completion of the AOA drivers training program, the driver's immediate supervisor will conduct a ride along to observe the driver on the movement area for 10 calendar work shifts. The Supervisor will then be required to submit a detailed letter to the Executive Director summarizing the driver's performance. Upon receipt and review of the report, the Executive Director will approve or deny unescorted access and airfield driving privileges to the driver.

**Second Offense:**

1. The individual's SIDA badge will be confiscated.
2. The individual will be required to submit a written report detailing the surface incident to the Executive Director. The written report must be detailed and acceptable to the Executive Director.
3. The individual will complete AOA drivers training to include both written and practical evaluation of airfield driving procedures.
4. If the violator is not an ERAA employee such as a tenant or contractor the individual's organization will receive notification of non-compliance with federal regulations and driving privileges will be revoked for the driver for a minimum of 15 calendar days.
5. Upon successful completion of the drivers program the driver's immediate supervisor is required to conduct a ride along to observe the driver on the movement areas for 10 calendar work shifts. The Supervisor is required to submit a detailed letter to the Executive Director, who will approve or deny unescorted access and airfield driving privileges to the driver.

**Third Offense:**

1. The third offense of any surface incidents will result in permanent ban of SIDA and driving privileges.

***Maintain Records*****Training**

The Airport maintains a description and date of training completed by each individual operating in the movement areas, safety areas or aprons. To maintain AOA driving privileges, each authorized AOA Driver must also attend annual recurrent training courses within 365 days of initial or previous recurrent training. This recurrent training is conducted to refresh drivers of the operating hazards and any special conditions that may exist.

**Accidents/Incidents**

The Airport maintains records of accidents or incidents in the movement areas and safety areas, involving air carrier aircraft and/or ground vehicles. Records of each accident or incident are maintained for 12 months from the date of accident or incident.

## Appendix H – Test questions

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. The operator of a vehicle entering or exiting the air operations area (AOA) must stop and wait until the gate closes behind him/her before moving such vehicle. This requirement is:
  - a. Waived if accompanied by an TSA inspector
  - b. Waived during peak traffic hours
  - c. Waived during daylight hours
  - d. Never waived
  
2. As an operator with valid driving privileges, you are permitted to drive onto a taxiway from the ramp, without clearance from the tower, because the ramp and the taxiway share the same area.
  - a. True
  - b. False
  
3. Any person operating a vehicle within the AOA may be required to show his/her drivers license to an authorized representative from the Airport Authority. Failure to do so may result in ejection from the AOA.
  - a. True
  - b. False
  
4. Aircraft in motion shall at all times have the right of way.
  - a. True
  - b. False
  
5. Erie ground frequency is:
  - a. 118.100
  - b. 121.000
  - c. 121.950
  - d. 121.900
  
6. Any person operating a vehicle involved in an accident shall immediately report the accident to the Airport Police:
  - a. If it caused an injury to any person
  - b. If it caused the death of any person
  - c. If it caused damage to any property
  - d. All the above
  
7. Any person violating any rule and/or regulation while in the SIDA/AOA may lose all or part of their airport access privileges for any one violation.
  - a. True
  - b. False

8. Vehicles may cross hold short lines without clearance from the tower if the operator looks in both directions before crossing any runway.
  - a. True
  - b. False
  
9. When issued a route to follow, the operator of a vehicle may not deviate unless a new clearance is received.
  - a. True
  - b. False
  
10. What color paint is used on taxiways?
  - a. White
  - b. Yellow
  - c. Red
  - d. None
  
11. What color paint is used on runways?
  - a. White
  - b. Yellow
  - c. Red
  - d. None
  
12. What color are obstruction lights?
  - a. White
  - b. Red
  - c. Blue
  - d. Green
  
13. What color lights are used for designating the edge of a taxiway?
  - a. Blue
  - b. White
  - c. Red
  - d. Green
  
14. What color lights are used for designating the edge of a runway?
  - a. Blue
  - b. White
  - c. Red
  - d. Green

15. Match the following, tower controlled, light gun signals:
- |                               |                             |
|-------------------------------|-----------------------------|
| a. _____Steady green          | 1. N/A to vehicles          |
| b. _____Flashing green        | 2. Stop                     |
| c. _____Steady red            | 3. Exercise extreme caution |
| d. _____Flashing red          | 4. Cleared to cross or go   |
| e. _____Flashing white        | 5. Return to starting point |
| f. _____Alternating red/green | 6. Clear taxiway or runway  |
16. What color is used to designate a taxiway directional sign?
- Black letter on yellow background
  - Yellow letter on black background
  - Red letter on white background
  - White letter on red background
17. What color is used to designate a taxiway location sign?
- Black letter on yellow background
  - Yellow letter on black background
  - Red letter on white background
  - White letter on red background
18. What color is used to designate a runway mandatory hold sign?
- Black letter on yellow background
  - Yellow letter on black background
  - Red letter on white background
  - White letter on red background
19. How long is 6-24?
- 10,000 feet
  - 8,420 feet
  - 6,000 feet
  - 6,500 feet
20. A controller who says “go ahead” means
- Proceed as requested
  - Continue straight ahead
  - State your message
21. FOD is caused by
- Bad weather conditions
  - The airport manager
  - Trash and debris

22. If a controller gives you permission to do something which appears 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 concerns and get clarification before proceeding
  - d. Flash your headlights and proceed
  
23. Aircraft usually land and takeoff
  - a. Into the wind
  - b. With the wind at their back
  - c. Both a and b
  
24. 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

## Appendix I – FAA LOA Airport Movement Areas

Erie Airport Traffic Control Tower and Erie Regional Airport Authority

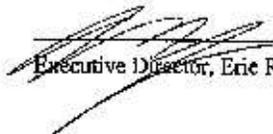
### LETTER OF AGREEMENT

EFFECTIVE: March 1, 2013

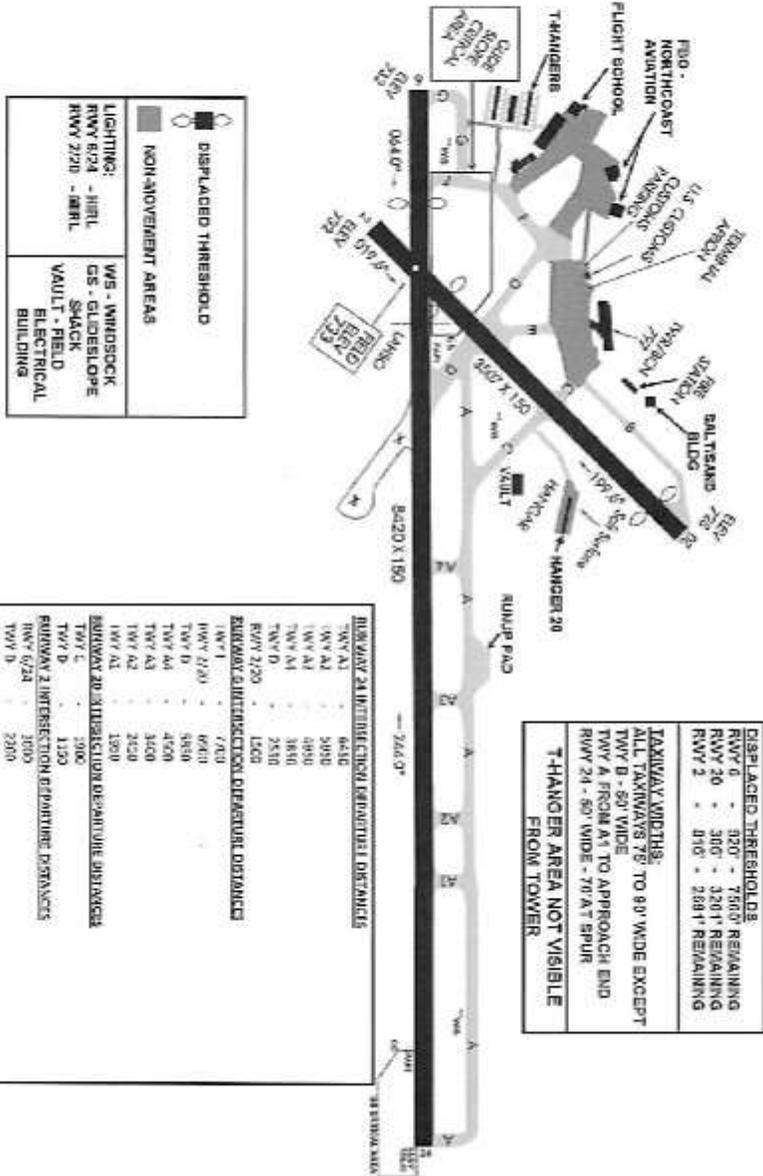
SUBJECT: Airport Movement Areas

1. **PURPOSE:** To establish responsibility, procedures and define movement areas on Erie International Airport.
2. **CANCELLATION:** Eric Tower and Erie International Airport Letter of Agreement, dated March 17, 2009.
3. **SCOPE:** The provisions of this Letter are applicable to the Erie Regional Airport Authority (ERAA) and the Erie Air Traffic Control Tower (ATCT).
4. **RESPONSIBILITY:** The procedures contained within this Letter of Agreement (LOA) shall be adhered to by the ERAA and the Eric ATCT, unless otherwise coordinated.
5. **PROCEDURES:**
  - a. ERAA has established and delineated areas of the Erie International Airport as movement and non-movement areas. These areas are depicted in Attachment 1, Movement/Non-movement Areas.
  - b. ERAA assumes jurisdiction and control over non-movement areas.
  - c. Eric ATCT assumes jurisdiction and control over movement areas.
  - d. When ERAA has closed a movement area, that surface is released to ERAA for closed movement area access purposes.
  - e. ERAA must issue the applicable NOTAMs.
  - f. ERAA will place barricades and visual aids to indicate closed areas at their discretion in accordance with applicable Advisory Circulars and other airport guidance.
6. **ATTACHMENT:** Attachment 1, Movement/Non-movement Areas.

  
\_\_\_\_\_  
Mr Traffic Manager, Eric Tower

  
\_\_\_\_\_  
Executive Director, Erie Regional Airport Authority

Movement/Non-Movement Areas on Erie International Airport



**Appendix J – Airfield orientation and drivers training record form**




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*Erie International Airport, Tom Ridge Field*  
*AOA Drivers Training Form*

Print or type, must be complete & legible for processing

Last Name	First Name	Full Middle Name	
Home mailing address	City	State	Zip
Drivers License #	Home Phone	Cell/Other Phone	Tenant / Company

*Initial Drivers Training*

**Please read and initial when complete**

I have viewed the Erie Airports Drivers Training video and understand its contents.

I have received and reviewed the Erie Airport Drivers Training handout which includes penalties for violations of AOA rules and regulations.

I have completed the driving portion of the AOA Airfield Drivers Training program.

DATE	Initial

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I have completed all of the required AOA Drivers Training. I am fully aware of all of the procedures, requirements, responsibilities, and penalties that I must obey and follow while operating within the AOA and safety areas.

**OFFICIAL USE ONLY**

Instructor Name	Instructor Signature