

DRIVER TRAINING MANUAL

Movement Area



**FORT WAYNE-ALLEN COUNTY
AIRPORT AUTHORITY**

FORT WAYNE INTERNATIONAL AIRPORT

Table of Contents

INTRODUCTION.....	4
1. Applicability	5
2. Definitions	5
3. Severability	7
4. Violation of Rules	7
5. Runway Incursions.....	7
6. Driver Privileges Training and Testing Requirements	8
6.1. Training Requirements.....	8
6.2. Testing Requirements	8
6.3. Initial Testing Procedure	9
6.4. Annual Testing Procedure	9
7. Driver Privileges Regulations.....	10
7.1. Vehicle Operator Requirements.	10
7.2. Vehicle Regulations.....	12
7.3. Vehicular Accidents.....	13
8. Non-Movement Areas.....	13
8.1. Perimeter Roads	13
8.2. Some Taxiways/Taxilanes.....	14
8.3. Ramps.....	14
9. Driving	14
10. Nighttime and Poor Weather Driving Conditions	16
10.1. Surface Movement Guidance and Control System (SMGCS)	16
11. Driving on the Movement Areas.....	16
12. ATCT Control Movement Areas.....	16
13. Authorized Vehicles	17
14. Taxiways.	17
14.1. Designations	17
14.2. Lighting.....	17
14.3. Signs.....	17
14.4. Markings	18

- 15. Runways..... 20**
 - 15.1. Designations 20**
 - 15.2. Lighting..... 20**
 - 15.4. Markings..... 21**
- 16. Communications 22**
- 17. Radio Frequency 22**
- 18. Phraseology 22**
- 19. Common Use Phrases 24**
- 20. Phonetic Aviation Alphabet..... 25**
- 21. ATCT Light Gun Signals 26**
- 22. Safety..... 27**
 - 22.1. Runway Incursions 27**
 - 22.2. Right-of-Way..... 27**
- Appendix A 28**
- References..... 29**

INTRODUCTION

Authority for Implementation of Rules and Regulations. The Fort Wayne International Airport (FWA) operates under the authority of The Fort Wayne Allen County Airport Authority further referred to as FWACAA or the Airport Authority.

Objectives

- To understand FWA's non-movement and movement driving privileges
- To become familiar with FWA's Air Operations Area (AOA)
- To promote safety and increase situational awareness
- To define airport terminology

1. **Applicability.** This regulation applies to all users of, and persons on any portion of, the property owned or controlled by FWACAA. No persons are exempt from airport operating training requirements for operating a vehicle on the airside of an airport. Employers operating at the airport are responsible for the dissemination, training, and compliance with these rules and regulations by their employees.

These rules and regulations may be amended, changed, or modified by FWACAA as necessary. The current version of these rules and regulations may be found at fwairport.com on the Badges & Driver Training page.

2. **Definitions.** The following terms are defined as indicated in this section for the purpose of this Ground Vehicle Operation Training Manual.

- 2.1. **Accident**—a collision between one aircraft or vehicle and another aircraft, vehicle, person, or object that results in property damage, personal injury, or death.
- 2.2. **Air Carrier Apron**—an apron for air carriers. Only authorized personnel and vehicles may operate on this apron. Private vehicles and aircraft are prohibited from operating on it.
- 2.3. **Air Operations Area (AOA)**—Any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runways, taxiways, or aprons.
- 2.4. **Airport Traffic Control Tower (ATCT)**—operated by the Federal Aviation Administration to promote the safe, orderly, and expeditious flow of air traffic.
- 2.5. **Aircraft**—a device that is used or intended to be used for flight in the air.
- 2.6. **Airport**—Fort Wayne International Airport Facility, owned and operated by FWACAA, including all improvements and equipment existing or to be developed.
- 2.7. **Apron**—a defined area on an airport or heliport intended to accommodate aircraft for the purposes of parking, loading and unloading passengers or cargo, refueling, or maintenance. Also known as a ramp.
- 2.8. **Fixed-Based Operator (FBO)**—a person, firm, or organization engaged 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.

- 2.9. 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.
- 2.10. Ground Vehicle**—all conveyances, and aircraft not operated for the purpose of flight, used on the ground to reposition or test aircraft, transport persons, cargo, fuel, or equipment.
- 2.11. Incursion**—any occurrence at an airport 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.
- 2.12. Jet Blast**—jet engine exhaust or propeller wash (thrust stream turbulence).
- 2.13. 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.
- 2.14. Mobile Fueler**—a vehicle owned and/or operated by authorized agents to pump and dispense Jet A and 100 LL fuel. This may include fuel tankers, in-to-plane fueling pumpers, and hydrant carts.
- 2.15. Movement Area**—the runways, taxiways, and other areas of an airport that aircraft use for taxiing, takeoff, and landing, exclusive of loading aprons and aircraft parking areas.
- 2.16. Non-movement Areas**—the area, other than that described as the movement area, used for the loading, unloading, parking, and movement of aircraft on the airside of the airport (including apron areas and on airport fuel farms).
- 2.17. Operator**—any person who is in actual physical control of an aircraft or a motor vehicle.
- 2.18. Owner**—a person who holds the legal title of an aircraft or a motor vehicle.
- 2.19. Restricted Areas**—areas of the airport posted to prohibit or limit entry or access by the general public. All areas other than public areas.
- 2.20. Runway**—a defined rectangular area on a land airport prepared for the landing and takeoff run of aircraft along its length. Runways are part of the movement area.
- 2.21. Taxiways**—those parts of the airside designated for the surface maneuvering of aircraft to and from the runways and aircraft parking areas. Taxiways can be part of the movement area or non-movement area.

2.22. Taxilanes—the portions of the aircraft parking areas used for access between taxiways and aircraft parking positions. Taxilanes are part of the non-movement area.

2.23. Vehicle or Pedestrian Deviation (V/PD)—any entry or movement on the airport movement area or safety area by a vehicle operator or pedestrian that has not been authorized by air traffic control (includes surface incidents involving aircraft operated by non-pilots, such as mechanics).

2.24. Vehicle Service Road—a designated roadway for vehicles in a non-movement area.

- 3. 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 the remaining portions of these Rules and Regulations.

- 4. Violation of Rules— Penalties and Suspension of Driving Privileges.** Any person who does not comply with any of the provisions of this Driver Training Manual, Airport Rules and Regulations Ordinance, or any lawful order issued pursuant thereto, will be subject to progressive penalties for repeat violations. These penalties may include being denied use of the Airport by FWACAA in addition to the penalties described pursuant to Federal, state, or local authorities.
 - 4.1.** Reserved
 - 4.2.** Based on an evaluation of the circumstances or the severity of a particular incident or incidents, the Airport Authority reserves the exclusive right to assess any penalty it deems appropriate at any time to any individual authorized to operate a vehicle on the airside without regard to prior operating history.
 - 4.3.** Reserved

- 5. Runway Incursions.** Any individual involved in a runway incursion or other vehicle incident must complete remedial airfield driver training.

6. Driver Privileges Training and Testing Requirements

6.1. Training Requirements

- 6.1.1. Employers operating at the airport must train their employees to know and understand the rules and regulations contained in this Drivers Training Manual. The employees must be knowledgeable on the rules and regulations prior to testing with the Airport Authority.
- 6.1.2. FWACAA reserves the right to decline permission for testing to any person if it is found that the employee has not been trained by their employer until which time that the training requirement has been met.

6.2. Testing Requirements

- 6.2.1. All persons who operate or escort vehicles in the movement portions of the airport must successfully complete the airport's testing requirements listed in this section and have their airport ID badge properly endorsed.
- 6.2.2. Successful completion of testing requirements is defined as passing the movement drivers test with a grade of ninety percent (90%) or greater. Any person that does not successfully complete testing may retest after additional study and a one (1) day period. The waiting period may be waived by FWACAA at its discretion if the test has been reconciled with the applicant.
- 6.2.3. All persons who operate or escort vehicles in the movement portions of the airport must successfully complete initial testing, as well as, successful completion of **annual** testing.
- 6.2.4. Annual testing requirements are calculated as twelve (12) consecutive calendar months. This period may be reduced by the FWACAA, as necessary, but will never be lengthened.
- 6.2.5. Any person who does not successfully complete annual testing will have their driving privileges and badge access suspended until which time successful testing has occurred.
- 6.2.6. Employers and employees bear the responsibility to ensure they have complied with the annual testing requirements.

6.3. Initial Testing Procedure

- 6.3.1.** Initial testing is conducted after a person has received their airport ID badge. Successful completion is required for the movement driving endorsement.
- 6.3.2.** Prior to exercising unescorted movement area privileges all drivers must successfully complete a movement area driving practical test (“ride along”). The practical is completed with Airport Operations (446-3434).
- 6.3.3.** Movement area driving practical tests may only be conducted after successful completion of the written movement area initial test.
- 6.3.4.** Employers and employees are responsible for ensuring completion of the driving practical test.

6.4. Annual Testing Procedure

- 6.4.1.** Annual testing is conducted at the Airport Operations Office (260-446-3434).
- 6.4.2.** Employers will be notified near the beginning of the month of all employees that are required to test prior to the end of the month.
- 6.4.3.** It is highly encouraged that appointments for annual testing be made beforehand. This will ensure that Airport Operations will be in the office when needed and will reduce the length of testing. Testing by appointment generally takes approximately fifteen (15) minutes.
- 6.4.4.** Two (2) persons can be accommodated simultaneously. Groups larger than two (2) require appointments due to space restrictions. Up to eight (8) persons can be tested per hour.
- 6.4.5.** This review does not replace the requirement of the employer to ensure training of all persons who operate or escort vehicles in the movement area.

7. Driver Privileges Regulations

7.1. Vehicle Operator Requirements.

7.1.1. No vehicle may be operated on the airside unless—

- 7.1.1.1. The driver is authorized to operate the class of vehicle by an appropriate state-licensing agency or by the driver's employer through a company training/certification program.
- 7.1.1.2. The driver properly displays an approved, airport-issued ID badge with the Authorized Driver designation.
- 7.1.1.3. No person operating or driving a vehicle on any aircraft ramp may exceed a speed greater than 10 miles per hour. Factors including, but not limited to, weather and visibility must be taken into consideration when determining safe operating speed.
- 7.1.1.4. No vehicle may pass another ground vehicle in a designated vehicle roadway.
- 7.1.1.5. No vehicle may 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 and maintain a safe distance from the aircraft.
- 7.1.1.6. Moving aircraft and passengers enplaning or deplaning aircraft have the right-of-way at all times over vehicular traffic. Vehicle drivers must yield the right-of-way.
- 7.1.1.7. No vehicle operator may enter the airside unless authorized by the Airport Authority or unless the vehicle is properly escorted.
- 7.1.1.8. No person may operate any motor vehicle that is in such physical or mechanical condition as to endanger persons or property or that the Airport Authority considers an endangerment.
- 7.1.1.9. No person may—
 - Operate any vehicle that is overloaded or carrying more passengers than for which the vehicle was designed.
 - Ride on the running board or stand up in the body of a moving vehicle.
 - Ride with arms or legs protruding from the body of a vehicle except when the vehicle was designed for such use.

- 7.1.1.10.** A vehicle guide person is required whenever the vision of the vehicle operator is restricted.
- 7.1.1.11.** No fuel truck may be brought into, stored, or parked within 50 feet of a building. Fuel trucks must not be parked within 10 feet from other vehicles.
- 7.1.1.12.** Container carriers and tugs may tow no more carts, pods, or containers than are practical, under control, tracking properly, and safe.
- 7.1.1.13.** When not serving aircraft or undertaking their intended functions, apron vehicles and equipment must be parked in approved areas in such a manner as to not block or restrict the operation or movement of other vehicles and equipment.
- 7.1.1.14.** Vehicle operators must not operate or park vehicles under any passenger loading bridge.
- 7.1.1.15.** No person may park a vehicle in an aircraft parking area, safety area, or gross area or in a manner that obstructs or interferes with operations in the aircraft movement area or apron area.
- 7.1.1.16.** No person may 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.
- 7.1.1.17.** No person may park a vehicle or equipment in a manner that prohibits an emergency vehicle from accessing any fire hydrant.
- 7.1.1.18.** No person may operate a vehicle or other equipment within the airside under the influence of alcohol or any drug that impairs, or may impair, the operator's abilities.
- 7.1.1.19.** Each vehicle operator using an airport perimeter (security) gate must ensure the gate closes behind the vehicle prior to leaving the vicinity of the gate. The vehicle operator must also ensure no unauthorized vehicles or persons gain access to the airside while the gate is open.
- 7.1.1.20.** Vehicle operators must 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 to property.

7.1.1.21. Vehicles must not enter the movement area or cross runways unless the operator of the vehicle has received required training and authorization from the Airport Authority to operate on the movement area. Whenever possible, all airport vehicles must utilize the airport perimeter and service roads to transition between areas on the airport.

7.1.1.22. Each vehicle operator is responsible for the activities of each vehicle passenger on the airside of the airport.

7.2. Vehicle Regulations.

7.2.1. No vehicle may be operated on the airside unless it has proper registration in Indiana or is a qualified off-road vehicle that is not normally operated on public streets but has received the approval of the Airport Authority.

7.2.2. All vehicles operated on the airside must have vehicle liability insurance, as required by FWACAA.

7.2.3. The Airport Authority must approve tenant vehicles operated on the movement and non-movement areas. These vehicles must display a FWACAA sticker or an airport-approved company logo.

7.2.4. Carts or pieces of equipment being towed or carried after darkness must have side and rear reflectors or rear lights.

7.2.5. No vehicle may be permitted on the airside unless—

- It is in sound mechanical condition with unobstructed forward and side vision from the driver's seat.
- It has the appropriately rated and inspected fire extinguishers (service vehicles and fuel trucks).
- It has operable headlamps and brake lights.

7.2.6. All aircraft refueling vehicles and any other vehicle 8-foot or more in width must be equipped with a flashing amber beacon and flashing front, tail, and clearance lights that are activated at all times when operating on the airside.

7.3. Vehicular Accidents. Operators of vehicles involved in an accident on the airport that results in injury to a person or damage to an aircraft, airport property, or a vehicle must—

7.3.1. Immediately stop and remain in a safe place at the scene of the accident.

7.3.2. Render reasonable assistance, if capable, to any person injured in the accident.

7.3.3. Report the accident immediately to the Airport Authority's Public Safety Department before leaving the scene.

7.3.4. Provide and surrender the following to any responding FWACAA personnel: name and address, airport identification card, state driver's license, and any information such personnel need to complete a motor vehicle accident report.

8. Non-Movement Areas. Includes aprons, taxilanes, some taxiways, and other areas not under control of the 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 the ATCT. These areas include—

- Perimeter Roads
- Air Carrier (Terminal) Apron
- West Apron
- North Apron
- T-Hangar Apron
- Cargo (Air Trade Center)Apron
- Taxiways E, F, M, K and S
- Taxilane S1

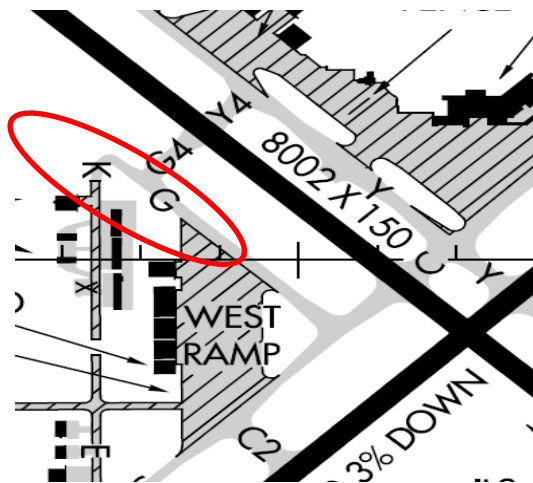
8.1. Perimeter Roads

The perimeter road is the means by which to get from one side of the airport to the other. While on the perimeter road, obey the speed limit - 30 mph, unless otherwise posted, and **give way to aircraft at all times**. While driving around the field you should listen to ground frequency, if vehicle is equipped, so that you can hear and be able to anticipate any aircraft movements. In addition, the vehicle shall be properly marked and lighted. The **Northwest Perimeter Road** is on the northwest side of the airport near Runway 14 and has a posted speed limit of **40 mph**. The Southwest Perimeter Road is on the southwest side of the airport and is parallel to Taxiway Charlie. It extends from the fuel farm to the air cargo facility (Air Trade Center).

Look and Go Route

A Letter of Agreement between the Airport Authority and Air Traffic Control Tower states that vehicle operators do not need to call ground control for permission to drive from the NW Perimeter Road, to the T-Hangars, or the West Ramp, in any order. This agreement is only valid on TWY G between TWY K and the West Ramp as indicated in the picture.

You must stop and determine that your movement will not impede on any aircraft



as they have the right of way at all times. You must also continue to monitor the ground frequency 121.9 for any other traffic that may be in the area. **These are the only routes on the entire airfield that are designated as look and go sites.** TWY Gulf is still considered within the Movement Area. All vehicles using the Look and Go Route must have all required Movement Area equipment (Vehicle placard, two-way radio, beacon, etc.) Any other travel within the movement area **MUST** be communicated with the Air Traffic Control Tower.

8.2. Some Taxiways/Taxilanes (See Appendix A)

8.3. Ramps (See Appendix A)

9. **Driving.** Operating within the apron areas requires the vehicle driver to exercise extreme caution as aircraft are always moving, aircraft passengers may be walking from an aircraft to the gate, and noise levels are high.

- 9.1. The Non-Movement Area Boundary Line separates the Non-Movement Area (not controlled by ATC) and the Movement Area (controlled by ATC). The solid line is located on the non-movement side while the dashed line is located on the movement side. Vehicle operators may **ONLY** cross the Non-Movement Area Boundary Line when permission is granted by ATC.



Non-Movement Area Boundary Line

9.2. Vehicle drivers should—

- 9.2.1.** Always follow the speed limit of 10 mph on all ramps
- 9.2.2.** Never drive between safety cones or across delineated passenger walkways.
- 9.2.3.** Watch cockpit blind spots—pilots typically cannot see behind or below the aircraft.
- 9.2.4.** Avoid jet blast or prop wash, which can blow debris or overturn vehicles.
- 9.2.5.** Be aware and avoid moving propellers that can cause damage, injury, or death.
- 9.2.6.** Be aware of other vehicle movements—you may not hear them approaching due to aircraft engine noise.
- 9.2.7.** Yield to aircraft, passengers, and emergency vehicles, which **ALWAYS** have the right-of-way on the Air Operations Area of the airport.

9.3. Parked aircraft may still have their engines running, so be aware of the hazards of jet blast or prop wash, which may overturn vehicles. Before an aircraft engine is started, the aircraft's red flashing beacons must be on. In some instances, propellers and engine spinners are marked to indicate when the engine is operating. A pilot's ability to maneuver quickly on the ground is limited. Propellers and jet engines can cause significant damage and injury to personnel. In addition, cockpit visibility prohibits the pilot from seeing under the nose or behind the aircraft and limits the pilot's ability to avoid ground vehicles.

10. Nighttime and Poor Weather Driving Conditions. Poor weather conditions (snow, fog, rain, etc.) might obscure visual cues, roadway markings, and airport signs. Vehicle operators should remain vigilant of their surroundings and operating boundaries. Watch out for snow removal equipment and aircraft operating in the vicinity under low-visibility conditions. There are additional risks present under these conditions.

10.1. Surface Movement Guidance and Control System (SMGCS) Procedures

10.1.1. SMGCS Procedures are in effect when low visibility conditions are determined to exist between 1200'-600' RVR (runway visual range).

10.1.2. During SMGCS Procedures only vehicles operated by FWACAA Maintenance, Operations, PSD, and FAA Technical Operations are authorized to operate in the movement area.

10.1.3. Requests for movement area access by entities other than listed above must be approved and coordinated by FWACAA Operations or PSD. Additionally, approved vehicles must obtain clearance from ATCT prior to movement area operation.

10.1.4. FWACAA Operations or PSD will notify affected parties.

11. Driving on the Movement Areas Drivers who are authorized to operate on the movement area require more training and vigilance since there are dangers associated with this area that are not present on non-movement areas. In addition to the principals for driving on the non-movement area, drivers that 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 directions.

12. ATCT Control 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 aprons and aircraft parking areas. Movement areas are considered "positive control," meaning that all vehicle or aircraft operators will need permission from ATC before entering the area.

13. Authorized Vehicles Only those vehicles necessary for airport operations may enter a movement area. Therefore, fuel trucks, maintenance vehicles, tugs, catering trucks, and other nonessential vehicles should not be permitted to enter these areas. Exceptions include FWA-authorized vehicles with appropriately trained personnel. Airport Operations or Airport Maintenance must coordinate all other vehicle operations within the movement areas.

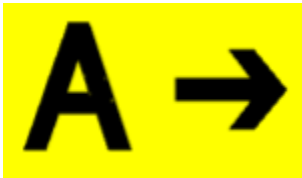
14. Taxiways.

14.1. Designations. Aircraft use taxiways to move to and from the aprons and the runways. Taxiways are designated by letters or by a letter/number combination such as C, Y, B2, or S1.

14.2. Lighting. Taxiways are lighted with **blue** edge lighting and/or reflectors.

14.3. Signs. The signs used on taxiways are direction, destination, location, and taxiway ending marker signs.

14.3.1. *Direction and Destination Signs* have **black lettering and a directional arrow or arrows** on a **yellow background**. The arrow indicates the direction to that taxiway, runway, or destination.



Taxiway Directional Sign

14.3.2. *Location Signs* have **yellow lettering** on a **black background**. The location sign below indicates that the operator of the vehicle/equipment is located on the named taxiway or runway.



Taxiway Location Sign

14.3.3. Runway Safety Area/Object Free Zone (OFZ) and Runway Approach Area Boundary Signs, when required, identify the boundary of the runway safety area/OFZ or the runway approach area to the pilot and vehicle operator. The driver can use these signs to identify when the vehicle is clear of the runway environment. It has a **black inscription** that depicts the hold line marking on a **yellow background**.



Runway Safety Area/OFZ and Runway Approach Boundary Sign

14.4. Markings. Pavement markings on taxiways are always yellow. The taxiway centerline is painted on all taxiways. On the edges of some taxiways, there is a solid, double yellow line or double-dashed line. If pavements are usable on both sides of the line, the lines will be dashed; if not, the lines will be solid.

14.4.1. Enhanced Taxiway Centerline Markings provides supplemental visual cues to alert pilots of an upcoming runway holding position marking for minimizing the potential for runway incursions. To reinforce situational awareness before entering a runway, this safety enhancement is only used on those taxiways that directly enter a runway.



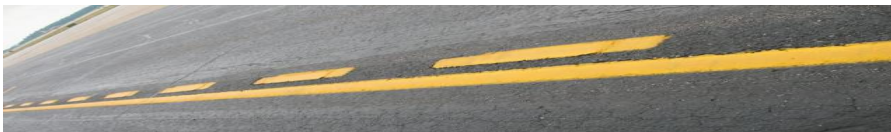
ENHANCED TAXIWAY CENTERLINE MARKING

14.4.2. Runway Holding Position Markings are located across each taxiway that leads directly onto a runway. These markings are made up of **two solid lines and two broken yellow lines** and denote runway holding position markings. These markings are always co-located with a Runway Holding Position Sign. A vehicle operator must not cross from the solid-line side of the marking without first obtaining clearance from ATC.



Runway Holding Position Marking

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



Non-Movement Area Boundary Marking

14.4.4. Instrument Landing System (ILS) Critical Area Holding Position Markings are comprised of **two parallel yellow lines** with lines running perpendicular between the two parallel yellow lines. These markings identify the location on a taxiway where an aircraft or vehicle is to stop when it does not have clearance to enter ILS critical areas. The ILS critical area must remain clear, especially in inclement weather. If a vehicle proceeds past this ILS marking, it might cause a false signal to be transmitted to the landing aircraft. ATCT will advise when a vehicle is required to hold short of these lines.



ILS Hold Position Marking

15. Runways (See Appendix A)

15.1. Designations. Runways are areas where aircraft land and take off. Runways are always designated by a number such as 5 or 23. The number indicates the magnetic compass heading of the runway. An aircraft taking off on runway 23 is headed 230 degrees.

15.2. Lighting. Runways are lighted with a variety of colored lights.

15.2.1. Runway Edge Lights are **white**. If the runway has an instrument approach, the last 2,000 feet of the runway will be amber/yellow in color.

15.2.2. Runway Centerline Lights are **white** except for the last 3,000 feet of the runway, where they begin to alternate **red** and **white**. For the last 1,000 feet of runway the centerline lights are all **red**.

15.2.3. Runway Touchdown Zone Lights are **white**.

15.2.4. Runway End/Threshold Lights are split lenses that are **red/green**.

15.3. Signs

15.3.1. Mandatory Holding Position Signs for Runways have **white numbering/lettering** on a **red background**. These are located at each entrance to a runway and at the edge of the runway safety area/obstacle-free zone and are co-located with runway holding position markings. **Do not proceed beyond these signs until clearance is given by the ATCT to enter onto the runway.**



Runway Hold Sign

15.3.2. Instrument Landing System (ILS) Holding Position Signs have **white letters** on a **red background**. These signs tell pilots and vehicle operators where to stop to avoid interrupting a type of navigational signal used by landing aircraft. This is a critical area, and a vehicle/equipment operator must remain clear of it when notified by ATCT. If a vehicle proceeds pass this microwave landing system/ILS marking, it may cause a false signal to be transmitted to the landing aircraft.



ILS Hold Sign

15.3.3. Runway Distance Remaining Signs provide distance remaining information to pilots during takeoff and landing operations. They have **white numbering** on a **black background**. **The number on the sign provides the remaining runway length in 1,000-foot increments.**



Runway Distance Remaining Signs

15.4. Markings.

15.4.1. Pavement markings on a runway are white. Runway Threshold Markings and Runway Threshold Bars, Runway Aiming Point Markings, Runway Designation Markings, Runway Touchdown Zone Markings, Runway Centerline Markings, Runway Side stripes, and Displaced Threshold Markings are white. The only nonwhite lines on a runway are yellow lead-in/-off lines that extend from the runway centerline.

16. Communications. Any vehicle driving on the **movement areas (runways and taxiways) must** be in contact with the ATCT or capable of monitoring and transmitting on the CTAF. Vehicle operators must always monitor the appropriate radio frequency when in the movement areas on controlled airports. Permission must be requested and clearance given prior to driving on a movement area. A vehicle that is equipped with a radio and a driver who is movement area qualified may escort vehicles without radios, these vehicles must stay under the control of the escort at all times. When a movement area is closed for construction, vehicles may traverse that area without ATCT contact but must be escorted if their travels require them to cross an active movement area.

17. Radio Frequency. The ATCT broadcasts on Ground frequency 121.9. All non-aircraft transmissions use this channel.

18. Phraseology. Vehicle operators must contact the ATCT ground controller each and every time they proceed onto or leave the movement area. When proceeding onto a movement area, vehicle operators must tell the controller three things: **WHO you are, WHERE you are, and WHAT your intentions are.** Vehicle operators must always acknowledge all communications with ATC phraseology, i.e., read back the clearance with their vehicle, tug or aircraft identification so ground control and other persons know that the message was received. **Vehicle operators must always give aircraft and ground control transmissions priority unless an emergency exists.** Very high frequency frequencies are for the primary use of aircraft and ATCT personnel. Some typical transmissions are as follows:

ATCT Communication with a vehicle

- Vehicle: "Fort Wayne Ground, this is Airport 21 at the Air Trade Center. I would like to proceed on Taxiway Charlie to Maintenance."
- ATCT: "Airport 21, Fort Wayne Ground, proceed on Taxiway Charlie, cross Runway 9/27 to Maintenance."
- Vehicle: "Proceed on Taxiway Charlie, cross Runway 9/27 to Maintenance, Airport 21." (When the vehicle is off the movement area) Vehicle: "Ground, Airport 21 is off the field at Maintenance."

ATCT Communication with an airline mechanic taxiing

- Mechanic taxiing: "Fort Wayne Ground, this is Endeavor Maintenance XXXX, at the terminal ramp, request taxi to the Maintenance Hangar."
- ATCT: "Endeavor Maintenance XXXX, Fort Wayne Ground, proceed on Taxiway Charlie, cross Runway 14/32 to the Maintenance Hangar."
- Mechanic taxiing: "Proceed on Taxiway Charlie, cross Runway 14/32 to the Maintenance Hangar." (When the airline mechanic is off the movement area) Mechanic taxiing: "Ground, Endeavor Maintenance XXXX is off the field at Maintenance."

ATCT Communication with a tug towing an Aircraft

- Tug: "Fort Wayne Ground, Tug XXX, with aircraft in tow, at hangar 45, would like to proceed to the West Ramp via taxiway Yankee 4."
- ATCT: "Tug XXX, Fort Wayne Ground, proceed on Taxiway Yankee, hold short runway 32 at Yankee 4."
- Tug: "Proceed on Yankee, hold short Runway 32 at Yankee 4, Tug XXX"
- ATCT: "Tug XXX, Fort Wayne Ground, cross runway 32 at Yankee 4 to the West Ramp."
- Tug: "Cross runway 32 at Yankee 4 to the west ramp." (When Tug is off of the movement area on the West Ramp) Tug: "Ground, Tug XXX is off the field on the West Ramp."

ATCT Communication with a contractor

- Contractor: "Fort Wayne Ground, Survey 1, at the West Ramp, would like to proceed onto Runway 14/32 at Taxiway Gulf 4"
- ATCT: "Survey 1, Fort Wayne Ground, proceed on Runway 14/32 from Taxiway Gulf 4 and hold short Runway 5/23."
- Contractor: "Proceed on Runway 14/32 from Taxiway Gulf 4 and hold short Runway 5/23, Survey 1."

Communication continued after work is completed on NW side of RWY 14/32

- Contractor: "Ground, Survey 1, on Runway 14/32 near Gulf 4 I would like to proceed southeast on Runway 14 to the approach end of Runway 32."
- ATCT: "Survey 1, Fort Wayne Ground, proceed southeast on Runway 14, cross Runway 5/23 to the approach end of Runway 32."
- Contractor: "Proceed southeast on Runway 14, cross Runway 5/23 to the approach end of Runway 32, Survey 1."
- ATCT: (After Survey 1 crosses RWY 5/23) "Survey 1, Fort Wayne Ground, hold short Runway 5/23."
- Contractor: "Hold short Runway 5/23, Survey1."

NOTE: If you are unsure what the controller has said, or if you don't understand an instruction, you should ask the controller to repeat it. Good communications only occur when each party knows and understands what the other is saying.

19. Common Use Phrases







What Is Said:	What It Means:
Acknowledge	Let me know you have received and understand this message.
Advise/Say Intentions	Let me know what you plan to do.
Affirmative	Yes.
Correction	An error has been made in the transmission, and the correct version follows.
Go Ahead	Proceed with your message only.
Hold/Hold Short	Phrase used during ground operations to keep a vehicle or aircraft within a specified area or at a specified point while awaiting further clearance from air traffic control.
How do you hear me?	Question relating to the quality of the transmission or to determine how well the transmission is being received.
Immediately or without delay	Phrase used by ATC when such action compliance is required to avoid an imminent situation.
Negative	"No" or "permission not granted" or "that is not correct."
Read Back/Say again	Repeat my message to me.
Roger	I have received all of your last transmission.
Stand By	Means the controller or pilot must pause for a few seconds, usually to attend to other duties of a higher priority. Also means to wait as in "stand by for clearance." The caller should reestablish contact if a delay is lengthy.
Unable	Indicates inability to comply with a specific instruction, request, or clearance.
Verify	Request confirmation of information.
Wilco	I have received your message, understand it, and will comply with it.

20. Phonetic Aviation Alphabet. Because some letters have similar sounds, like B and P, the international aviation industry uses the following words to reduce confusion. For example; Taxiway B would be referred to as Taxiway Bravo on the radio.

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

21. ATCT Light Gun Signals. Air traffic controllers have a backup system for communicating with aircraft or ground vehicles if their radios stop working. The controller has a light gun in the tower that can send out different colored lights to tell the pilot or driver what to do. If a vehicle operator experiences a radio failure on a runway or taxiway, the operator should vacate the runway as quickly and safely as possible and contact the ATCT by other means, such as a cellular telephone, and advise the ATCT of the situation. If this is not practical, then the driver after vacating the runway, should turn the vehicle, tug or aircraft toward the tower and start flashing the headlights and wait for the controller to signal with the light gun.

ATC Light Signals, and their meaning, are as follows:

Color and Type of Signal	Movement of Vehicles, Equipment and Personnel
Steady green 	Cleared to cross, proceed or go
Flashing green 	Not applicable
Steady red 	Stop
Flashing red 	Clear the taxiway/runway
Flashing white 	Return to starting point on airport
Alternating red and green 	Exercise extreme caution!!!!

22. Safety. The FAA defines runway incursion as any **occurrence at an airport involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and takeoff of aircraft.**

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

- Pilot/Mechanic taxiing or towing an aircraft /ground vehicle/controller communications
- Airport unfamiliarity
- Loss of situational awareness and not using a current airport diagram

An example of an incursion is a vehicle at an airport with an operating ATCT straying onto a runway in front of an aircraft causing the pilot to take an action to avoid a collision.

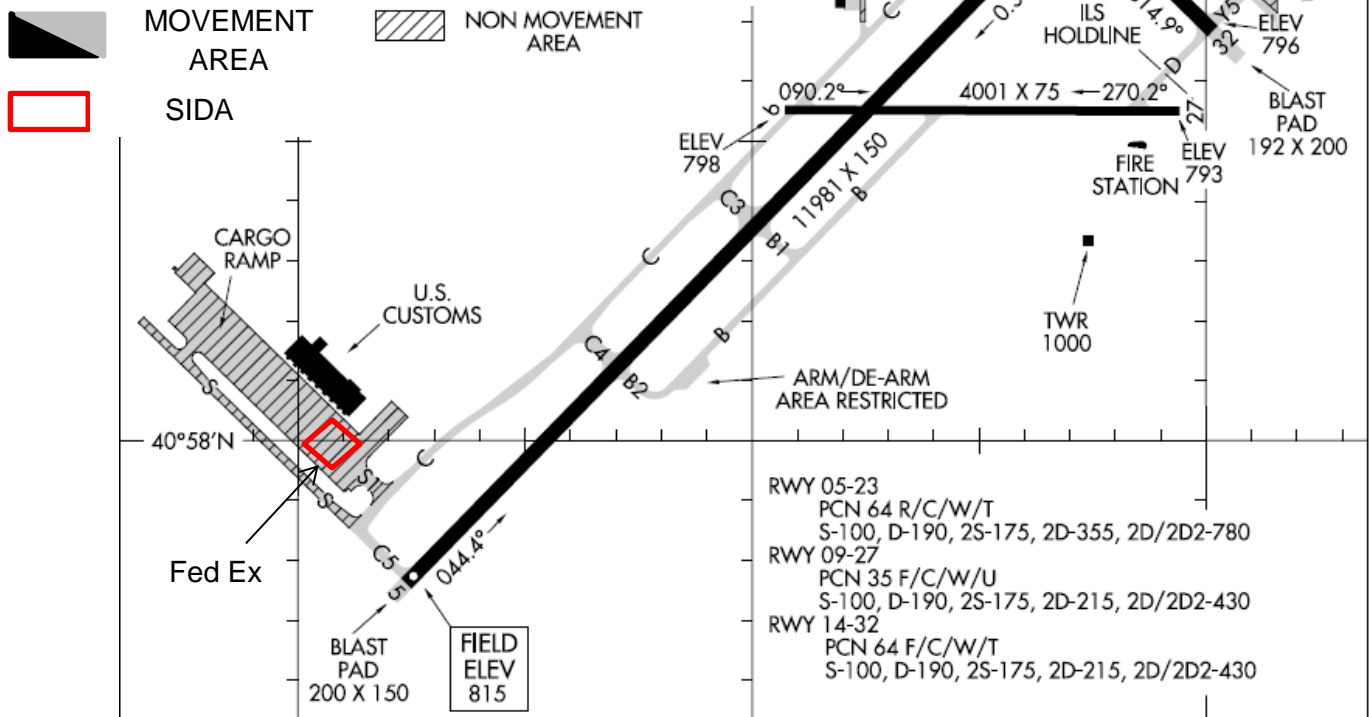
22.2.Right-of-Way. When driving on the airfield, vehicle operators and mechanics taxiing or towing an aircraft need to always be aware of their location and the meaning of all pavement markings, lights, and signs. When on the aprons and taxiways, stay away and steer clear of aircraft. **Aircraft always have the right-of-way.**

Appendix A

Fort Wayne International Airport (FWA)

The Movement Area and the Non-Movement area are the main components that make up Air Operations Area (AOA). The AOA consists of everything inside of the perimeter fence, including:

1. **Movement Area:**
 - a. Runway 5/23, 14,32, 9,27
 - b. TWY C, Y, G, B, D, and connecting TWYs
2. **Non-Movement Area:**
 - a. All Ramps
 - b. Taxiways E, F, M, K and S
 - c. Taxilane S1
 - d. The SIDA (Security Identification Display Area), all persons within the SIDA must display their SIDA airport issued badge at all times. The Terminal FedEx, and UPS Ramps are SIDA locations.
3. The Air National Guard Ramp is restricted to ANG Operations only.



EC-2, 15 SEP 2016 to 13 OCT 2016

References

United States. Federal Aviation Administration. Department of Transportation. Advisory Circular 150/5210-20A Appendix B.

Fort Wayne Allen County Airport Authority. Fort Wayne International Airport. Ordinance Number 13-01: Airport Rules and Regulations Ordinance for Fort Wayne International Airport.