

Aerodrome Inspectors Workshop

Safe Operation of Vehicles and Personnel in Movement and Safety Areas

Location: Trinidad & Tobago, 9-13 JUN 2014

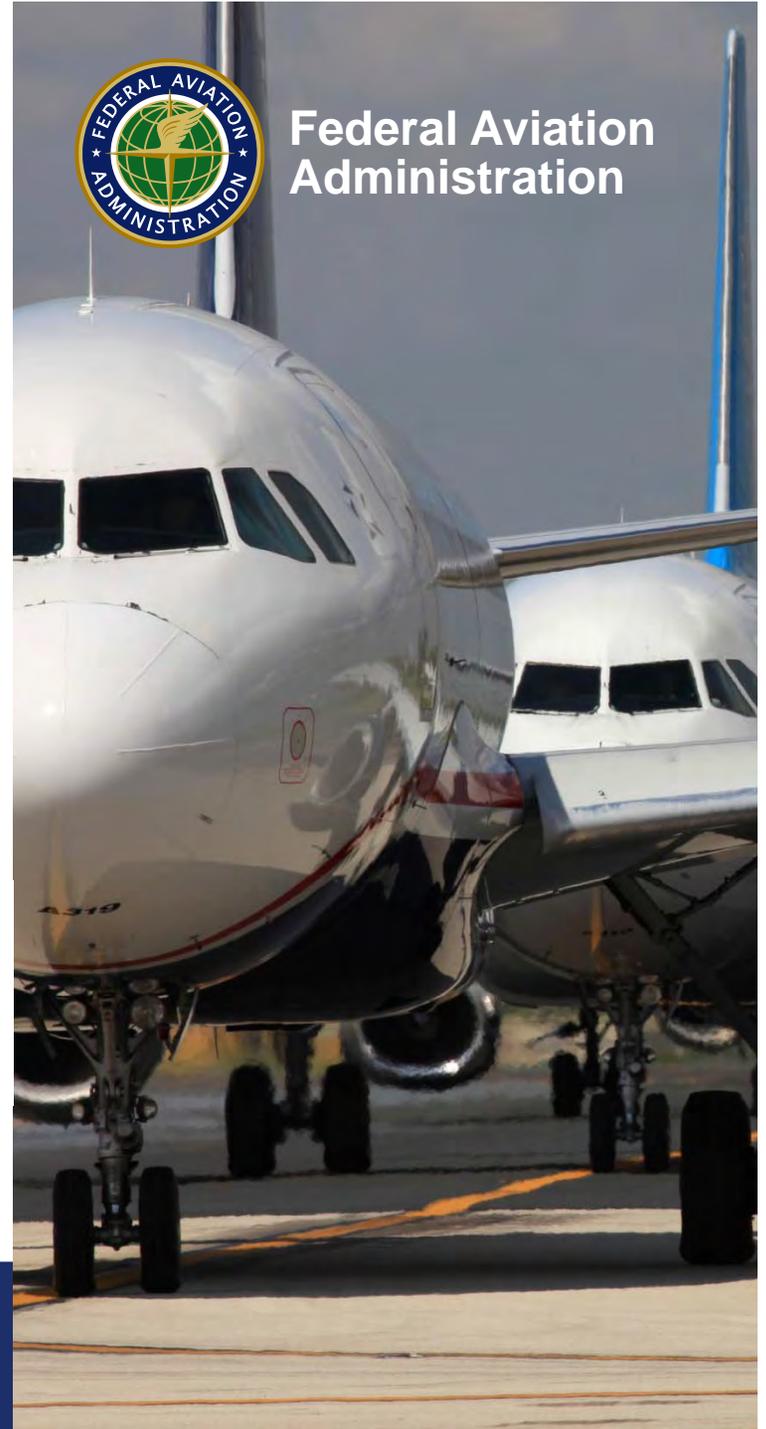
Presenter: Herman Smith, FAA ACSI

Date

Presentation Title



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OBJECTIVE

Know the procedures for safe operations of vehicles and personnel in the movement and safety areas



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ICAO VEHICLE OPERATIONS & OPERATOR REQUIREMENTS

OVERVIEW

- ICAO VEHICLE OPERATIONS & OPERATOR REQUIREMENTS
- FAA Part 139 VEHICLE OPERATIONS & OPERATOR REQUIREMENTS
- GROUND VEHICLE CONTROL





The **Movement Area** is the portion of the airfield where aircraft operate under the control of the Air Traffic Control Tower (ATCT). The movement area includes runways and taxiways. Normally, the apron area is non-movement area, however, at some airports, a taxiway may be located adjacent to the apron area and be under the control of Air Traffic Control.

ICAO VEHICLE OPERATIONS & OPERATOR REQUIREMENTS

- Review ICAO Annex 14, pgs. 6-1 thru 6-9 for vehicle marking & lighting requirements.
- Review ICAO Annex 14, pg. 9-8, sec. 9.7 for vehicle operations guidance.
- Review ICAO Annex 14. ATT A-25, sec. 18 for vehicle operator requirements.



ICAO Annex 14, Section 9.7

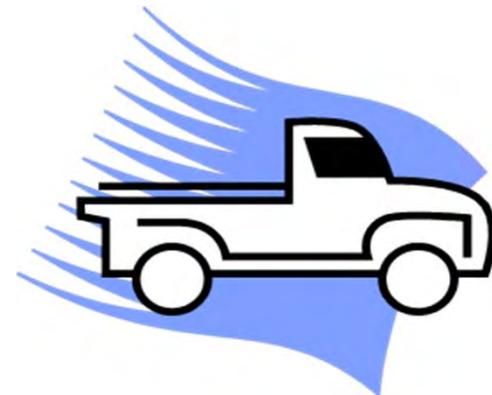
Aerodrome Vehicle Operations

A Vehicle shall be operated

- **On maneuvering area only when authorized by ATCT**
- **On apron only when authorized by aerodrome authority**

A Driver shall comply with all mandatory instructions conveyed by markings & signs

A Driver shall comply with mandatory instructions by lights



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ICAO Annex 14, Section 9.7

Aerodrome Vehicle Operations

The driver shall be appropriately trained for the tasks to be performed and shall comply with the instructions issued by:

- The aerodrome control tower
- The appropriate designated authority

The driver shall establish two-way radio communication with tower before entering the maneuvering area.

The driver shall maintain a continuous listening watch on the assigned frequency when on the movement area.



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Annex 14, Attachment A, Section 18

Operators of Vehicles

Authorities are responsible to ensure that vehicle operators are properly qualified. This includes knowledge of:

- **Geography of the aerodrome**
- **Aerodrome signs, markings, and lights**
- **Radio operating procedures**
- **Terms and phrases including ICAO alphabet**
- **Rules of air traffic services as they relate to ground operations**
- **Airport rules and procedures**
- **Specialist functions (such as firefighting)**



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Annex 14, Attachment A, Section 18

Operators of Vehicles

The operator should be able to demonstrate competency, as appropriate:

- The operation or use of vehicle transmit/ receive equipment
- Understanding and complying with air traffic control and local procedures
- Vehicle navigation on the aerodrome, and
- Special skills required for the particular function

In addition, the operator should hold a State driver's license, radio operator's license or other licenses.



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Pedestrian and Ground Vehicle Operations



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Ground Vehicle Control Inspection Criteria

FAA Regulation Part 139

SECTION 139.329 (a)



- ❑ Limit access to movement areas and safety areas to only pedestrians and vehicles necessary for airport operations.

GROUND VEHICLE CONTROL INSPECTION CRITERIA

SECTION 139.329(b)

- ❑ Establish and implement procedures for safe and orderly access to and operation in movement areas and safety areas by pedestrians and vehicles



GROUND VEHICLE CONTROL INSPECTION CRITERIA

SECTION 139.329(c)

Ensure that each pedestrian or ground vehicle is controlled by:



- Communications with the ATCT
- An escort communicating with the ATCT
- Other measures such as signs, signals or guards

GROUND VEHICLE CONTROL INSPECTION CRITERIA

SECTION 139.329(d)

If no ATCT, provide adequate pedestrian and ground vehicle control procedures in movement and safety areas through:

- Two-way radio communications
- Prearranged signs or signals



GROUND VEHICLE CONTROL INSPECTION CRITERIA

SECTION 139.329(e)

Ensure that, before personnel are allowed to move on safety or movement areas, each employee, tenant or contractor is trained on:

- **Pedestrian and vehicle control procedures**
- **Penalties for noncompliance**



GROUND VEHICLE CONTROL INSPECTION CRITERIA



Pedestrian and Vehicle Operator Training

- Airport familiarization
- Runways, taxiways and aprons
- Marking, lighting and signs
- NAVAIDs and critical areas
- ATCT functions and procedures
- Communication requirements

GROUND VEHICLE CONTROL INSPECTION CRITERIA



Pedestrian and Vehicle Operator Training

Phonetic alphabet and phraseology

Radio procedures including radio failure

Compliance with ATCT directions

Consequences for noncompliance with procedures

GROUND VEHICLE CONTROL INSPECTION CRITERIA

SECTION 139.329(f)

Maintain records for 24 months, including descriptions and dates, of:

- **Training completed**
- **Accidents/incidents in movement or safety areas involving air carriers, pedestrians or ground vehicles**



GROUND VEHICLE CONTROL INSPECTION CRITERIA

VEHICLE PROCEDURES

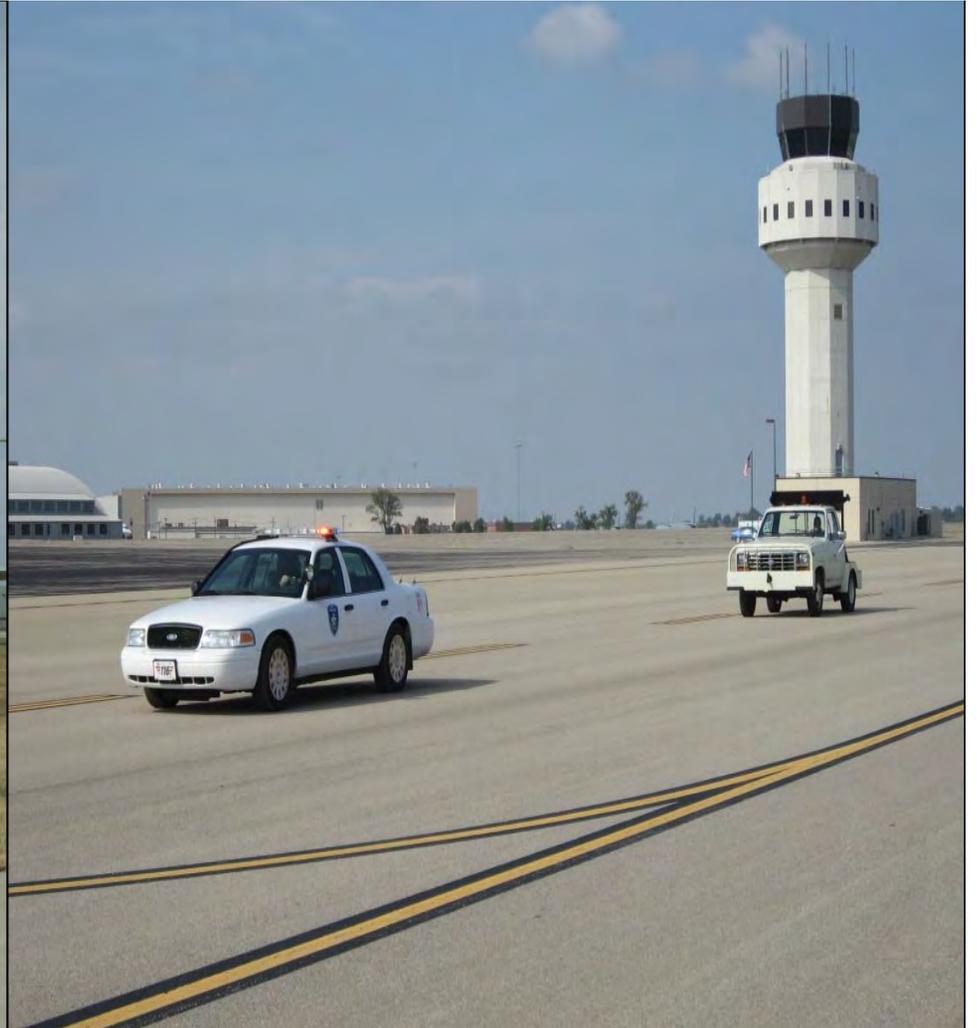
Authorized vehicles must

- Be painted in contrasting and conspicuous colors
- Display a company logo or identification numbers
- Have a flashing yellow beacon
- Be in two-way communications with the ATCT or, if no ATCT, use CTAF



Example of Vehicle Markings





Airport Operators should limit the number of airport tenant personnel authorized to operate a vehicle on the movement area to only those that have a definite need. Tenant personnel who may have a need to occasionally drive on the movement area would be better off being escorted by an authorized vehicle operator. Personnel who do not regularly drive on the movement area are not going to be as proficient as regular drivers and more likely to commit a V/PD.



Airport Operators should review procedures for access onto the AOA by City emergency vehicles, especially during airport emergencies. There have been numerous V/PDs in the U.S. by City police, mutual aid fire department vehicles and ambulances. The drivers of these vehicles are usually not familiar with airport procedures and infrequently operate at the airport. Mutual aid emergency vehicle drivers may drive directly to a crash scene once they gain access onto the AOA. Airport authority personnel should escort these type vehicles whenever they are on the movement area. Do not permit unrestricted access by mutual aid vehicles onto the AOA through perimeter gates.

Airline/FBO Personnel on Remote Deicing Pads



Snow Removal By Contractors or Other City Department Personnel



Personnel who operate on the movement area only during seasonal times of the year, should receive recurrent training just prior to that seasonal period. Special procedures for seasonal operations, such as mowing, snow removal and aircraft deicing, should also be reviewed just prior to those operations.



Service roads that enter runways should have vehicle roadway signs installed at the boundary of the runway safety area, in accordance with AC 150/5340-18F, Par 11, to help prevent inadvertent entry onto an active runway.

Where a vehicle enters a POFZ or ILS critical area on a perimeter or access road, a Size 1, retroreflective ILS Critical Area/POFZ sign should be installed. This is a new standard in AC 150/5340-18F. An ILS sign is not needed if the POFZ/critical area is located beyond the service road holding position sign.





Airport Operators should require vehicle operators to use existing service roads rather than crossing a runway. In many situations, service roads around runway ends add more travel time for airport personnel. This situation sometimes results in airport personnel taking shortcuts across the airfield as a matter of convenience. Airport management must be constantly on the lookout for this activity and continually emphasize the use of service roads.



Airport Operators should keep gates closed and locked to prevent entry onto the Air Operations Area (AOA) by unauthorized vehicles.



Ground vehicle/pedestrian training programs for airline personnel who are only authorized on the apron areas, should include procedures in the event that a dog escapes from a carrier and runs towards the movement area. There have been a number of V/PDs where airline personnel have chased after loose dogs onto the movement area.



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QUESTIONS?



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