



Federal Aviation Administration

National Part 139 CertAlert

****Advisory**Cautionary**Non-Directive**Advisory**Cautionary**Non-Directive**Advisory**Cautionary**Non-Directive****

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Date: November 29, 2022
To: All Title 14 CFR Part 139 Airport Operators
Subject: Movement Area Training and Situational Awareness

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- 1. Purpose.** This CertAlert reminds 14 Code of Federal Regulations (CFR) Part 139 certificated airports, movement area drivers, and other surface operators of the importance of providing comprehensive vehicle operation training and implementing proper movement area procedures to promote situational awareness during all surface operations.
- 2. Background.** On November 18, 2022, a fatal event occurred outside of the United States when an Aircraft Rescue and Firefighting (ARFF) vehicle entered a runway and struck an air carrier aircraft. While all passengers were able to evacuate the aircraft, there were injuries to passengers and at least two firefighters aboard the ARFF vehicle were killed as a result of this collision.

Since 2020, 18 percent of Runway Incursions (RIs)¹ have been caused by vehicle pedestrian deviations (VPDs), according to data collected by air traffic facilities. These events have included ARFF, airport maintenance, airport operations, and construction personnel as well as tug/taxi/tow operators during routine and non-routine operations. Routine activities include ARFF training, maintenance, operations, and tug/taxi/tow movements. Non-routine operations include emergency responses, movements during construction, snow and ice removal, and low-visibility operations. While the November 18 event cited above involved an ARFF vehicle, it illustrates the need for all movement area drivers and surface operators to remain situationally aware during routine and non-routine operations. This event and similar events demonstrate the importance of comprehensive movement area drivers training programs and procedures by airport operators. Applicable requirements under 14 CFR Part 139 are addressed in the following sections:

¹ [FAA Order 7050.1, Runway Safety Program](#), defines a 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 take-off of aircraft.

§139.303(c)(5), Personnel

“...Any additional subject areas required under §§ 139.319, 139.321, 139.327, 139.329, 139.337, and 139.339, as appropriate.”

§139.319(i)(2)(i), Aircraft Rescue and Firefighting: Operational Requirements

“Airport familiarization, including airport signs, marking, and lighting.”

§139.327(b)(3)(i), Self-Inspection Program

“Airport familiarization, including airport signs, marking and lighting”

§139.327(b)(3)(iv), Self-Inspection Program

“Procedures for pedestrians and ground vehicles in movement areas and safety areas”

§139.329(a), Pedestrians and Ground Vehicles

“Limit access to movement areas and safety areas only to those pedestrians and ground vehicles necessary for airport operations.”

§139.329(b), Pedestrians and Ground Vehicles

“....Establish and implement procedures for the safe and orderly access to and operation in movement areas and safety areas by pedestrians ground vehicles, including provisions identifying the consequences of noncompliance with procedures by all persons.”

§139.329(e), Pedestrians and Ground Vehicles

“....Ensure that all persons are trained on procedures required under paragraph (b) of this section prior to the initial performance of such duties and at least once every 12 consecutive calendar months.....”

- 3. Action.** We encourage airport operators to review their routine and non-routine operations and evaluate vehicle and surface operation training and procedures to accommodate site-specific activities based on the facility size, complexity, and operations to promote surface safety and situational awareness.

Airport operators should also consider the following actions to promote surface safety and situational awareness:

- Train vehicle operators to continuously scan outside their vehicles even with air traffic clearances to cross active surfaces and when there is no traffic reported in the area.
- Promote using clear and concise communication.
- Remind operators when communication is not clear to request clarification before proceeding onto runways or taxiways.
- Establish local guidance to minimize distractions and prohibit the use of cell phones while operating in movement areas.

- Train surface operators that are functioning as a team to implement crew resource management techniques to enhance safety, identify hazards and reduce errors to increase situational awareness when driving on the airfield.
- Implement random spot checks for driver and surface operator proficiency.
- Establish procedures to prevent non-proficient drivers and surface operators from accessing the movement area.
- For non-routine operators or those returning from extended leave, consider re-training to promote awareness and proficiency before re-entering movement areas.
- Implement dedicated procedures or routes to avoid high activity, congested areas, or blind spots.
- Evaluate accuracy and the effectiveness of all Letters of Agreement (LOAs) with FAA Air Traffic establishing procedures for access to movement and safety areas for ground vehicle operations.
- Review movement area training and procedures following surface events and share findings with stakeholders and update training and procedures, as needed.

4. Related FAA Standards and Additional Resources. Airport operators should consult the current versions of the following documents.

[AC 150/5210-20 - Ground Vehicle Operations to Include Taxiing and Towing an Aircraft on Airport](#). Provides guidance to airport operators on developing training programs for safe ground vehicle operations, personnel taxiing or towing an aircraft, and pedestrian control on the movement and safety areas of an airport.

[AC 150/5210-17 - Programs for Training of Aircraft Rescue and Firefighting Personnel](#). Provides information on courses and reference materials for training of ARFF personnel.

[AC 150/5370-2 - Operational Safety on Airports During Construction](#). Provides guidelines for operational safety on airports during construction.

[AC 150/5200-30 - Airport Field Condition Assessments and Winter Operations Safety](#). Provides guidance to assist airport operators in developing a snow and ice control plan and establishing snow removal and control procedures.

[AC 120-57B - Surface Movement Guidance and Control System](#). Provides guidance on the development of a Surface Movement Guidance and Control System (SMGCS) plan for U.S. airports where scheduled air carriers are authorized to conduct operations when the visibility is less than 1,200 feet runway visual range (RVR). A SMGCS plan facilitates the safe movement of aircraft and vehicles on the airport by establishing more rigorous control procedures and requiring enhanced visual aids.

Additional resources for airfield drivers and surface operations are available on the [FAA Website](#). These resources include [airfield driver's best practices](#) and the [FAA Guide to Ground Vehicle Operations](#).



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