

# Runway Incursion Prevention

## Vehicle/Pedestrian Deviations

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By: Steven A. Oetzell, ACSI

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Federal Aviation  
Administration



# What is a Vehicle/Pedestrian Deviation (V/VPD) ?

- **A vehicle or pedestrian deviation (VPD) includes pedestrians, vehicles or other objects (excluding animals) interfering with aircraft operations by entering or moving on the runway or movement area without authorization from air traffic control.**
- **NOTE: V/VPDs include airline mechanics taxiing or towing aircraft for maintenance or gate re-positioning purposes.**



# A Vehicle/Pedestrian Deviation can be:

- A Surface Incident

- A Runway Incursion



# Surface Incident

**Any event where unauthorized or unapproved movement occurs within the movement area or an occurrence in the movement area associated with the operation of an aircraft that affects or could affect the safety of flight. A surface incident can occur anywhere on the airport's surface, excluding the runway. All surface incidents in the runway environment will be classified as runway incursions.**



# Runway Incursion

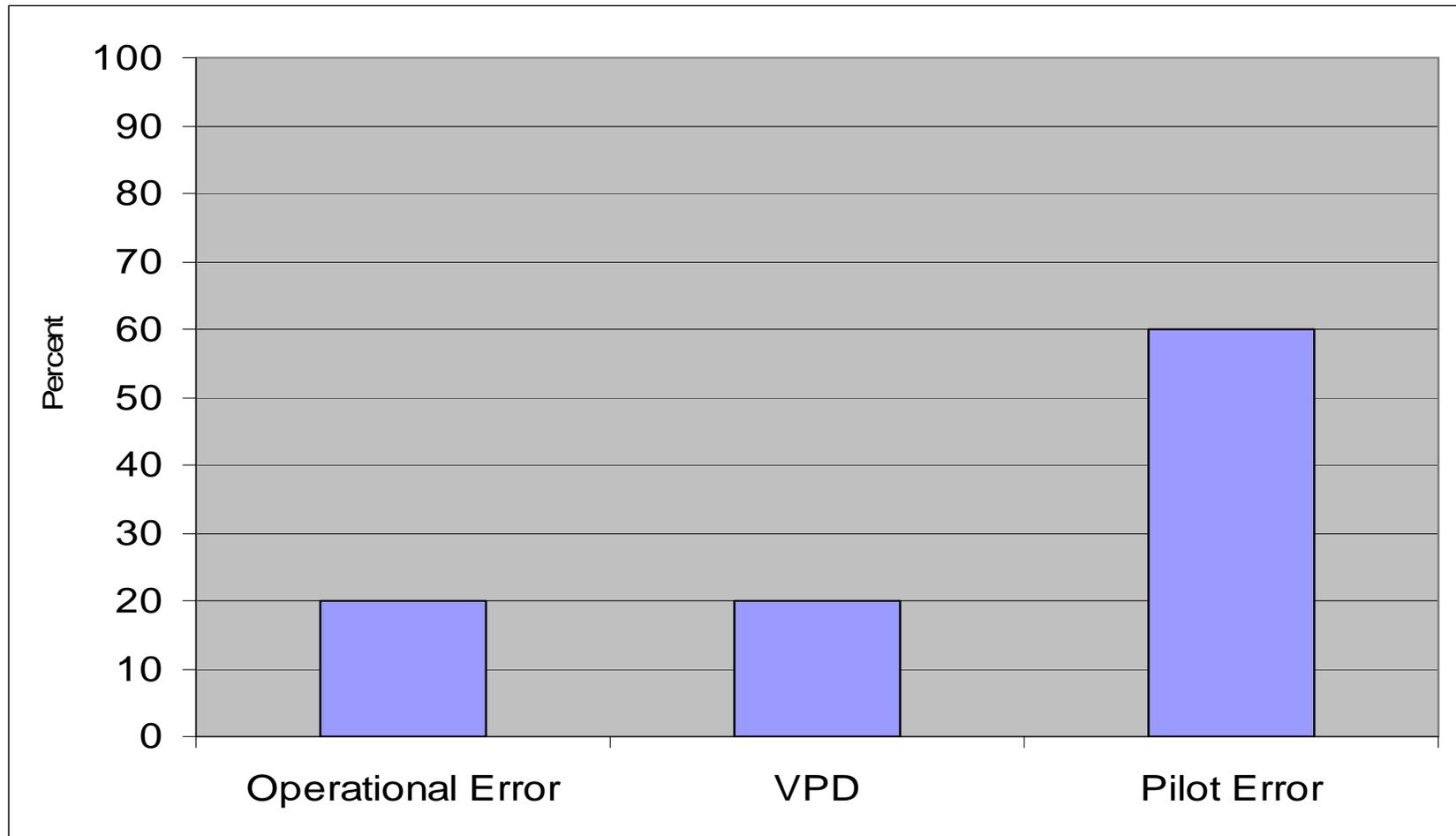
**Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.**

**Note:**

**On October 1, 2007 the FAA adopted the International Civil Aviation Organization definition of runway incursion as well as the ICAO runway incursion severity categories.**



# Runway Incursion Breakout



# Severity of Runway Incursions

- **Category A:** A serious incident in which a collision is narrowly avoided.
- **Category B:** An incident in which there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.
- **Category C:** An incident (meeting RI definition) characterized by ample time and/or distance to avoid a collision.
- **Category D:** An incident (meeting RI definition) with no collision hazard.



# Factors used to determine severity of runway incursions

- Available reaction time
- Need for evasive or corrective action
- Environmental conditions:  
Weather, visibility, surface conditions, etc.
- Aircraft/vehicle speed
- Proximity of aircraft/vehicle





## Who Commits Vehicle/Pedestrian Deviations?

Passengers, airport maintenance workers, contractors, pilots on foot, aircraft mechanics, airport police, Aircraft Rescue and Firefighting Personnel, Airport Operations, trespassers, piggy-backers, balloon chase crews, unescorted airport guests, a guy in a wheel chair, escorts, package delivery services, relatives, airport tenants, aircraft mechanics towing aircraft, teenagers, individuals with histories of mental illness, joggers, aircraft mechanics taxiing aircraft, intoxicated individuals, suspects being chased by the police, college students, a guy who was angry at his boss, people who are walking and decide to take a short cut across the airport, City employees, stowaways, movie stars, airline employees, USDA, trash trucks and the FAA.



# Why do people commit Vehicle/Pedestrian Deviations?



Assumed they were cleared, got lost, didn't know any better, became confused, was never trained, thought it would be OK, did not properly supervise an escort, didn't speak the language, took a short-cut, couldn't contact ATC, looking for the address of a tenant, followed the lead vehicle, followed a clearance issued to someone else, didn't know, expected to hear a clearance that was never issued, revenge, had to retrieve something, thought the runway was closed, had to warn the pilot about something, didn't care, thought the taxiway/runway was a road, had to photograph an airplane, vehicle did not have a radio, misinterpreted directions, couldn't find construction site and had to let my dog go to the bathroom.



# V/PDs Western-Pacific Region FY 2008 to Date

- The majority of V/PDs are occurring at 139 airports
- At both GA and 139 airports the majority of V/PDs are Runway Incursions.

	GA	139	Total
SI	5	8	
RI	8	13	
Total	13	21	34

# FY 2008 AWP V/PD Causes

- **Improperly Escorted** means vehicles or pedestrians not being continually supervised or allowed on the airfield and not being supervised at all.
- **Training Issues** include improper communications with ATC, unfamiliarity with signs & markings or unsure navigation about the airfield.

<b>GA</b>	<b>139</b>	<b>Cause</b>
<b>9</b>	<b>1</b>	<b>Improperly Escorted Vehicles/ Pedestrians</b>
<b>0</b>	<b>11</b>	<b>Training Issues</b>

# FY 2008 AWP V/PDs To Date misc.

- **GA Airports: 10 out of 13 total V/PDs were committed by those who had no legitimate business on the airfield.**
- **139 Airports: 16 out of 21 V/PDs were committed by those having legitimate business on the airfield but not properly following established procedures.**



# So you just had a V/PD.....Now what?



# Investigation Procedure

- **ARTCC, FSS, TRACON, ATCT, FSDO or other fills out and files FAA Form 8020-24, Preliminary Vehicle or Pedestrian Deviation Report**
- **The Airports Division of the FAA Regional Office with jurisdiction receives Form 8020-24 and assigns an Airport Certification/Safety Inspector (ACSI) to investigate case to determine the cause and to ensure that the airport operator takes action to prevent the same situation from resulting in another V/PD**



# Investigation Procedure cont.

- If V/PD was caused by a pilot or a mechanic **taxiing** an aircraft for repositioning or maintenance purposes, the Regional Flight Standards Office with jurisdiction will conduct the investigation. The Airports division investigates aircraft under tow.
- For a 139 certificated airport, the Inspector (ACSI) sends a Letter of Investigation (LOI) to the airport operator. A Letter of Inquiry is sent to non-certificated (general aviation) airports.



# Investigation Procedure cont.

- **The airport operator sends the ACSI a Letter of Response (LOR)**
- **The ACSI documents the results of the investigation on FAA Form 8020-25, Investigation of Vehicle or Pedestrian Deviation Report**
- **The ACSI responds to the airport operator with the results of the investigation**



# Results of the Investigation

## Part 139 Certificated Airports

- **Investigation Close-Out Letter**

**Matter closed-no further action required**

- **Warning Letter**

**A violation has occurred but was quickly resolved by the certificate holder**

- **Enforcement Proceedings**

**To be determined by violation**



# Results of the Investigation

## Non-certificated (General Aviation) Airports

- **Close out Letter**

**Matter closed-No further action required**

- **Withholding of Funds**

**An airport owner's failure to comply with Federal Grant Assurance 19, Operations and Maintenance, may result in the FAA withholding discretionary funds during the course of its investigation or as a result of the FAA's investigation (i.e., a finding that the airport is ineligible to receive Federal grants) until this matter is resolved.**



# Results of the Investigation cont.

## Non-certificated (General Aviation) Airports

- **Enforcement Proceedings**

**FAA Headquarters will initiate a formal investigation under Title 14 CFR Part 16, Rules of Practice for Federally-Assisted Airport Enforcement Proceedings**

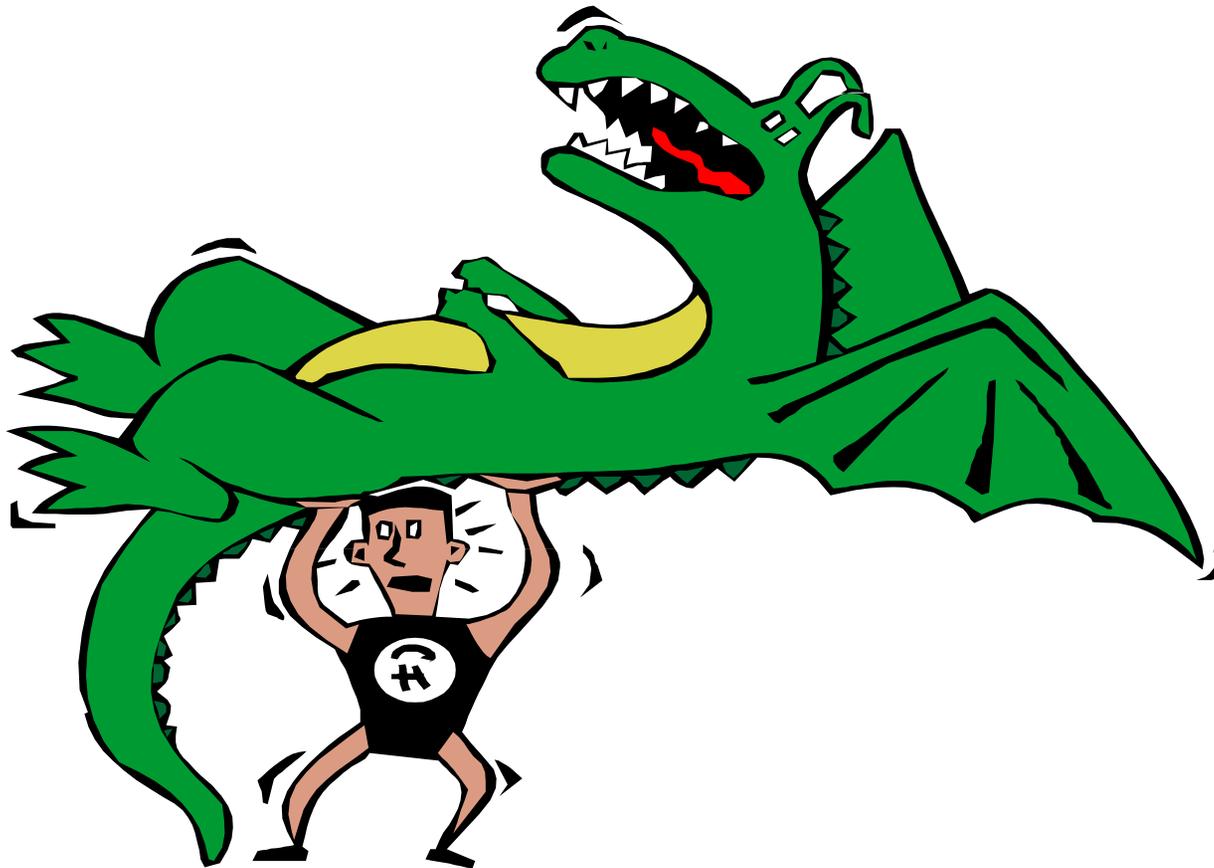


# Who is Responsible for What?

- The ACSI is responsible for making any recommendations **IN WRITING** to the airport operator
- The airport operator must take measures to prevent a reoccurrence or a similar incident
- The airport operator must hold the perpetrator accountable for his/her actions



# Vanquishing the V/PD



# The Potential Cost of V/PDs

- **Death and dismemberment**
- **Destruction of property**
- **Lawsuits**
- **Bad publicity**
- **Loss of career**



# Strategies

- **Security**

**Signs & Fencing**

- **Education**

**Drivers Training Program**

**Construction Plan**

**Tenant Outreach**

- **Consequences**

**Fines**

**Revocation of privileges**

**Arrest**



# Security

- **14 CFR Part 139.329 (a)**

## **Pedestrians and Ground Vehicles**

**Each certificate holder must limit access to movement areas and safety areas to only those pedestrians and ground vehicles necessary for airport operations**



# Security

Signs are the minimum acceptable means of compliance



# Security

Fencing-14 CFR Part 139.335 (1)(b)

## Public Protection

- (1) Each certificate holder must provide safeguards to prevent inadvertent entry to the movement area by unauthorized persons or vehicles.
- (b) Fencing that meets the requirements of applicable FAA or TSA security regulations in areas subject to these regulations.

# Education

## Driver Training Program

1. 14 CFR Part 139.329  
Pedestrians and  
Ground Vehicles
2. Advisory Circular  
150/5210-20  
Ground Vehicle  
Operations of Airports

## Construction Program

1. 14 CFR Part 139.329  
Pedestrians and  
Ground Vehicles
2. Advisory Circular  
150/5370-2E  
Operational Safety on  
Airports During  
Construction



# Education cont.

## Tenant Outreach

**Meetings**

**Fliers**

**Newsletters**

**Electronic Mailing**

**Face-to-face**

**Publish and distribute airport diagram**



# Education cont.

## Draft AC 150/5210-20, Ground Vehicle Operations On Airports changes:

- “Airside” now includes movement, non-movement areas, ramps and aprons
- Regular **recurrent** training is strongly recommended for all persons with access to the movement area **and ramp and apron areas** (Initial and recurrent training in movement area procedures is required for airport employees under § 139.303(c). Only initial training is required for tenant and contractor employees, under § 139.329(e)). .



# Education cont.

## Draft AC 150/5210-20, Ground Vehicle Operations On Airports changes:

- Any person expected to operate on the movement **and non-movement areas** should demonstrate a functional knowledge of the English language.
- **Under no circumstances should recurrent training intervals extend beyond one year.**



# Consequences

- **14 CFR Part 139.329 (b) & (e)**  
**Pedestrians and Ground Vehicles**

**Each certificate holder must**

**(b) Establish and implement procedures for the safe and orderly access to, and operation in, movement areas by pedestrians and ground vehicles, including provisions identifying the **consequences** of noncompliance with the procedures by an employee, tenant or contractor.**



# Consequences cont.

- **14 CFR Part 139.329 (b) & (e)**  
**Pedestrians and Ground Vehicles**

**Each certificate holder must**

- (e) Ensure that each tenant or contractor is trained on procedures required under paragraph (b) of this section, including **consequences** of noncompliance.**



# Consequences cont.

## Fines

**Actual fines, administrative fees, construction contract penalties, points system, etc.**

## Revocation of Privileges

**Revocation of driving privileges, access gate cards or airport identification badge (indefinitely or until completion of Airport Driver Training Course)**

## Arrest

**Trespassers on airport property may be arrested**



# The Two Lines of Defense



# Sources of Information

- 14 CFR Part 139 Certification of Airports
- AC 150/5210-20 Ground Vehicle Operations on Airports
- AC 150/5370-2E Operational Safety on Airports During Construction
- AC 150/5210-5C Painting, Marking and Lighting of Vehicles Used on an Airport
- Vanquishing the V/PD  
[http://www.faa.gov/airports\\_airtraffic/airports/regional\\_guidance/western\\_pacific/airports\\_resources/newsletter/](http://www.faa.gov/airports_airtraffic/airports/regional_guidance/western_pacific/airports_resources/newsletter/)
- The Office of Runway Safety  
<http://www.faa.gov/runwaysafety/>
- FAA Order 7050.1 Runway Safety Program



# Thank You For Your Attention



## Questions?