



2015 Annual Conference Atlanta

# Turning FAA Training Requirements into Measurable Exercises

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# THE MAP

**The Starting Point:**

**14 CFR § 139.319**

**14 CFR § 139.319 (i) (2)** Such personnel must be trained prior to initial performance of rescue and firefighting duties **Part 139 requires recurrent instruction every 12 specified areas as calendar months.** The curriculum for initial and recurrent training must include at least the following areas ...

# THE MAP

**Part 139 now hands us off to an Advisory Circular for the details**

## **14 CFR § 139.319 (I) Methods and procedures.**

FAA Advisory Circulars contain methods and procedures for aircraft rescue and firefighting and emergency medical equipment and training that are acceptable to the Administrator.

# THE MAP

## Advisory Circular 150/5210-17C

... this AC is required. It provides acceptable guidance in meeting the ~~This AC contains the details~~ soft rescue and firefighting training outlined in 14 CFR §139.319.

# The Details

**AC 150/5210-17C (1.3. 1.\_)**

1. Airport Familiarization
2. Aircraft Familiarization
3. Rescue and Firefighting Personnel Safety
4. Emergency Communications Systems on the Airport, including Fire Alarms
5. Use of Fire Hoses, Nozzles, Turrets, and Other Appliances
6. Applications of Extinguishing Agents
7. Emergency Aircraft Evacuation Assistance
8. Firefighting Operations

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9. Adapting and Using Structural Firefighting Equipment for Aircraft Rescue and Firefighting
10. Aircraft Cargo Hazards
11. Dangerous Goods
12. Familiarization with Firefighters' Duties under the Airport Emergency Plan
13. Additional Training

# **In Review**

**Part 139 requires this annual training**

**Part 139 specifies 12 training areas**

**Part 139 hands us off to Advisory Circular 150/5210 for the details**

## AC Curriculum Areas [12]

1. Airport Familiarization
2. Aircraft Familiarization
3. Rescue and Firefighting Personnel Safety
4. Emergency Communications Systems on the Airport, Including Fire Alarms
5. Use of Fire Hoses, Nozzles, Turrets, and Other Appliances
6. Application of Extinguishing Agents
7. Emergency Aircraft Evacuation Assistance
8. Firefighting Operations
9. Adapting and Using Structural Rescue and FF Equipment for ARFF
10. Aircraft Cargo Hazards
11. Familiarization with Fire Fighters' Duties Under the Airport Emergency Plan
12. Additional Training



## Area Topics [13]

### 1. Airport Familiarization

- (A) Describe Runway & Taxiway Identification System
- (B) Describe Airfield Lighting Color Code/Marking System
- (C) Describe Airfield Pavement Marking & Signing System
- (D) ID & Locate Various NAVAIDS on Airport
- (E) Cite Airport Rules & Regs for Vehicle Movement & Access
- (F) Cite Rules & Regs for Airport Security
- (G) Locate A Given Point on a Map
- (H) Identify Terrain Features Using Map Symbols
- (I) Identify Features Hazardous to Vehicle Response in CRAs
- (J) Identify Features Limiting to Vehicle Response in CRAs
- (K) Identify Probable Fuel Flow Direction for Various Leak Locations
- (L) Demonstrate Operation of Fuel System Valves & Pumps
- (M) Identify Frequent Hazmats & Their Locations

## Sub-Topics [2]

### 1. Airport Familiarization

#### (C) Describe Airfield Pavement Marking & Signing System

(i) Marking

(ii) Signage

# Elements [9]

## 1. Airport Familiarization

### (C) Describe Airfield Pavement Marking & Signing System

#### (ii) Signage

- (a) Mandatory Instruction Signs
- (b) Location Signs
- (c) Direction Signs
- (d) Boundary Signs
- (e) Taxiway Ending Markers
- (f) Destination Signs
- (g) Information Signs
- (h) Vehicle Roadway Signs
- (i) Runway Distance Remaining Signs

# Element Items [8]

## 1. Airport Familiarization

### (C) Describe Airfield Pavement Marking and Signing System

#### (ii) Signage

##### (a) Mandatory Instruction Signs

- (1) Taxiway/Runway Intersections
- (2) Runway/Runway Intersections
- (3) ILS Critical Areas
- (4) POFZ Boundaries
- (5) Runway Approach Areas
- (6) CAT II/III Operations Areas
- (7) Military Landing Zones
- (8) No Entry Areas

# Item

## 1. Airport Familiarization

### (C) Describe Airfield Pavement Markings & Signing Systems

#### (ii) Signage

#### (a) Mandatory Instruction Signs

#### (1) Taxiway/Runway Intersections

**33 - 15**

## Item Characteristics

### 1.(C) (ii) (a) (1) Taxiway/Runway Intersection Sign

**33 - 15**

**Appearance:** White lettering with black border on red background

**Sign Type:** Mandatory instruction sign

**Purpose:** To indicate taxiway intersection with specified runway(s)

**Interpretation:** Runway 33 threshold to left, 15 to right

**Action Required:** Hold for ATC clearance

**Remarks or Exceptions:** At runway end, sign may have only one number

# Field Item Checkoff Sheet

Item: 1.(C) (ii) (a) (1) Taxiway/Runway Intersection Sign










**33 - 15**

Candidate	Identifies Type	Identifies Use	Verbalizes Indicated Action	Remarks	Pass / Fail

# Field Item Checkoff Sheet

Item: 1.(C) (ii) (a) (1) Taxiway/Runway Intersection Sign

**33 - 15**

Candidate	Identifies Type	Identifies Use	Verbalizes Indicated Action	Remarks	Pass / Fail
Barfield, R.				Did not know sign was mandatory	P
Wilt, M.					P
Murphy, G.					F



# **Field Item Checkoff Sheets Can Be Used To:**

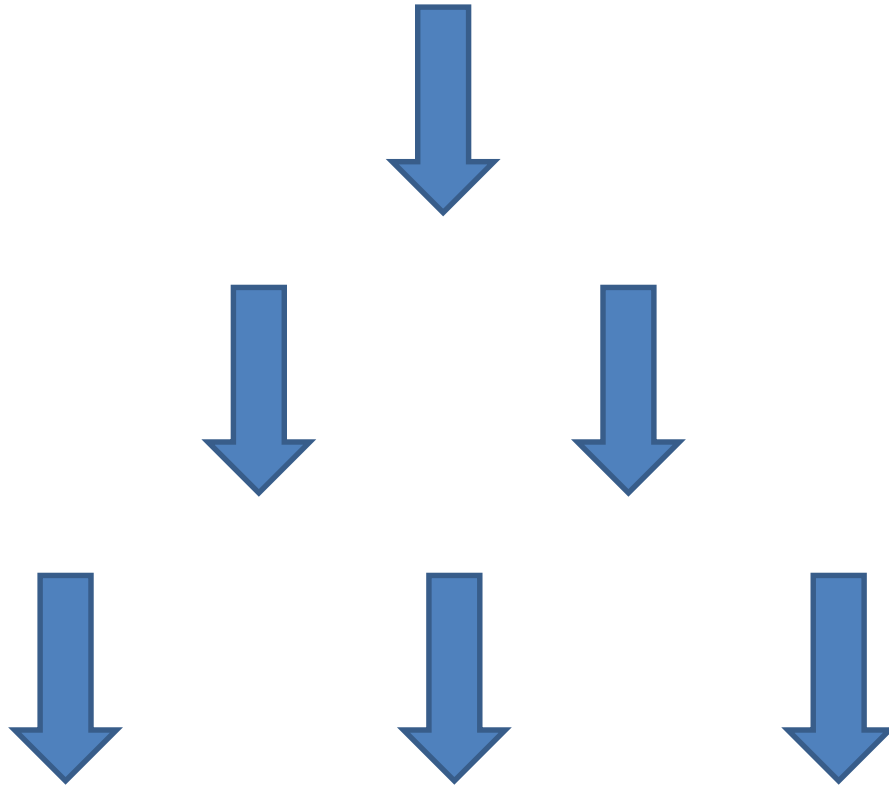
**Identify each Item**

**Train on each Item**

**Test on each Item**

**Document such Training and/or Testing**










# Airport Familiarization



# Field Item Checkoff Sheet

Item: 1.(C) (ii) (a) (1) Taxiway/Runway Intersection Sign

**33 - 15**

Candidate	Identifies Type	Identifies Use	Verbalizes Indicated Action	Remarks	Pass / Fail
Barfield, R.				Did not know sign was mandatory	P
Wilt, M.					P
Murphy, G.					F

# How Many of These Individual Items Are There?

**Curriculum Areas**                      **12**

**Area Topics**                              **13**










**Sub-topics**                                **2**

**Elements**                                 **9**

**Element Items**                         **8**

**Over 10,000 Items**

# 10,000 Field Item Checkoff Sheets

Candidate	Identifies Type	Identifies Use	Verbalizes Indicated Action	Remarks	Pass / Fail
Barfield, R.				Did not know sign was mandatory	P
Wilt, M.					P
Murphy, G.					F

# **Time Required to Develop All of These**

**Average 30 mins per Field Checkoff Sheet**

**5,000 Hours**

**That is: 625 Work Days (8-hour)**

**1.7 years, working 365 days per year**

**If you did nothing else**



GOOD  
GRIEF!

# **Strategies to Accomplish This Curriculum Development**

**Each Department do it individually**

**Participating Departments do it collectively**

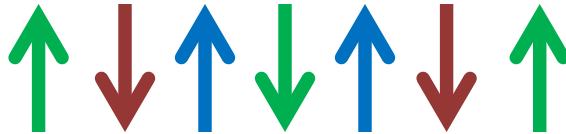
**Hire it out**

**Hybrid Model**

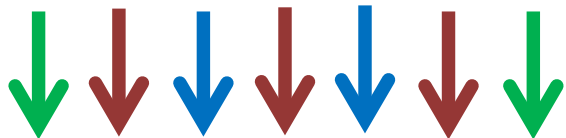


# Hybrid Model

Departments



Instrument Development Company



Departments

**However We Do It, We Must:**

**Turn the FAA Annual Training Requirements**

**Into Training/Testing/Documentation Exercises**

**That can be accomplished by the breakdown  
analysis of the 12 FAA training areas and creation  
of Field Checkoff Sheets as shown**



# **Turning FAA Training Requirements into Measurable Exercises**

**Henry Morse**

**Handouts / Contact Information  
available at the door**