National Training Aircraft Symposium (NTAS)   2016 - Pilot Supply, Regulatory Compliance, & Training Equipment

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ATP Certification Training Program

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ATP Certification Training Program

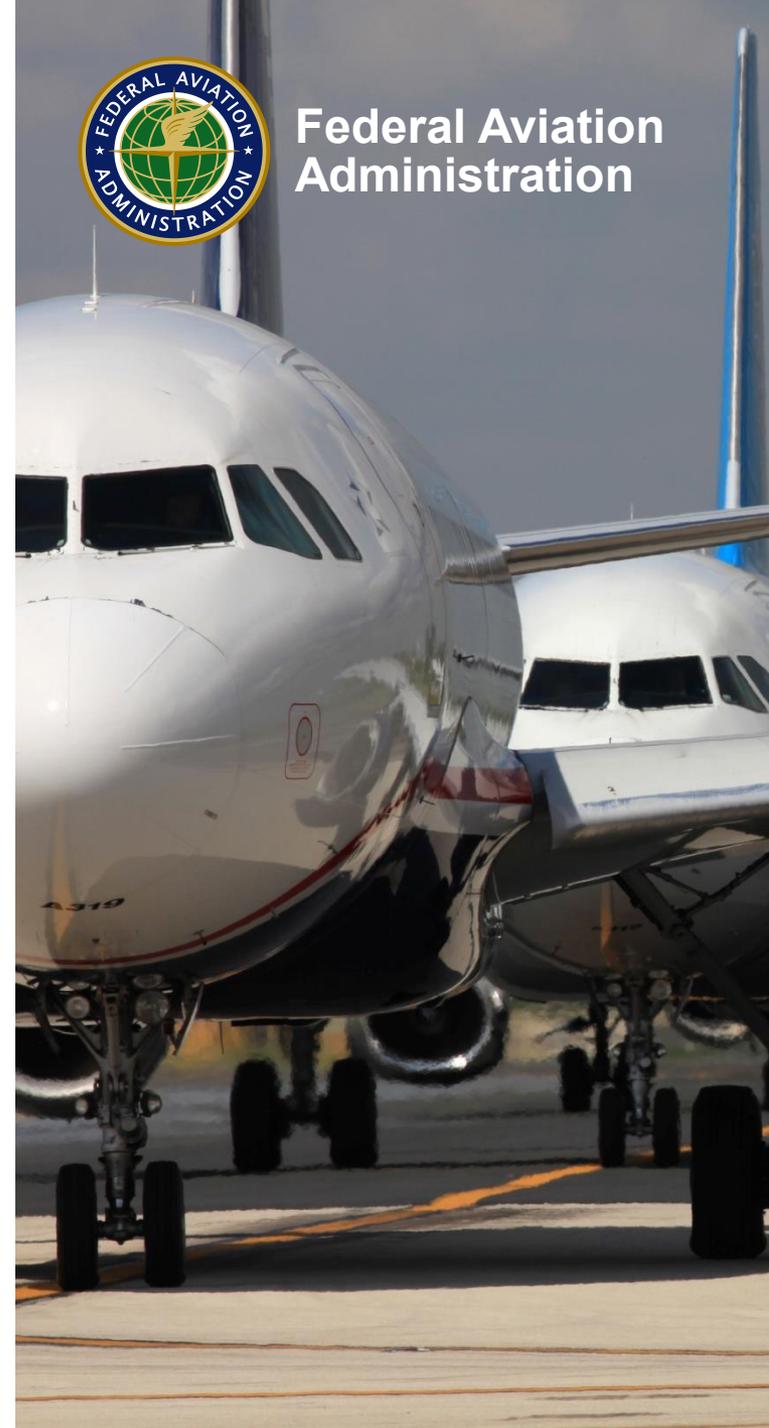**Bridging the Knowledge Gap Between a Commercial Pilot and a Pilot Operating in an Air Carrier Environment**

Federal Aviation Administration

Presented to: NTAS/PS&DS

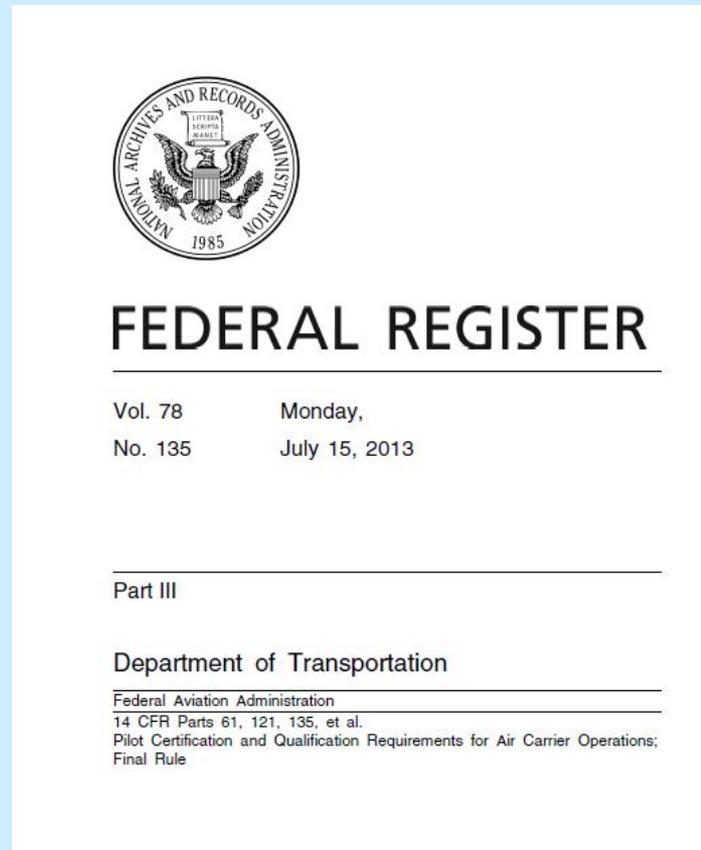By: Barbara Adams, FAA, AFS-280

Date: March 14, 2016

Agenda

- **ATP CTP: From the Beginning**
  - Timeline
  - FOQ ARC Report
  - Public Law 111-216
  - NPRM/Final Rule
- **Implementation: Where are we Today?**
  - Process for Approval
  - Status of Program Approvals
- **What is on the Horizon?**
  - Guidance Updates
  - Data

ATP CTP: From the Beginning

How a training requirement was born

Timeline

- **Colgan Air Flight 3407** – *February 2009*

- **ANPRM** – *February 2010*

- **First Officer Qualification ARC** – *July 2010*

- **Public Law 111-216** – *August 2010*

- **NPRM** – *February 2012*

- **Final Rule** – *July 15, 2013*

FOQ ARC Membership
July 2010 – September 2010

AABI – Aviation Accreditation Board International
ALPA – Air Line Pilots Association
AOPA – Aircraft Owners and Pilots Association
ATA – Air Transport Association of America, Inc. (now A4A)
CAPA – The Coalition of Airline Pilots Associations
NADA/F – National Air Disaster Alliance/Foundation
NBAA – National Business Aviation Association
PCI – Pilot Career Initiative
RAA – Regional Airline Association

FOQ ARC Report

- **Knowledge and Flight Experience Gap:**
  There is a "significant gap" between what is required for success as an FO in part 121 and the minimum regulatory requirements for a commercial pilot certificate.

- **Quantity Does Not Necessarily Equal Quality:**
  All flight time does not impart the same level of aeronautical experience. The gap may remain even after the candidate has completed the 1,500 hours required to obtain an ATP certificate.

- **Modern Pilot Training Program:**
  Research into training program performance data and how people learn indicate the gap can be most effectively bridged through successful completion of a training program that methodically integrates academic training, practical training, and flight experience.

FOQ ARC – Knowledge Areas

Recommended these be required for training pilots to operate as an SIC in part 121 air carrier operations:

- Advanced Aircraft Systems & Performance
- Navigation in Air Carrier Operations
- Air Carrier Operations & Safety & Security
- Air Carrier Weather Planning
- Communications
- Stall & Upset Recognition & Recovery
- Air Carrier Pilot Professionalism

Recommend subjects be on an FAA knowledge test

Federal Aviation Administration

Airline Safety and Federal Aviation Administration Extension Act of 2010

124 STAT. 2348   PUBLIC LAW 111–216—AUG. 1, 2010

Public Law 111–216
111th Congress

An Act

To amend the Internal Revenue Code of 1986 to extend the funding and expenditure authority of the Airport and Airway Trust Fund, to amend title 49, United States Code, to extend airport improvement program project grant authority and to improve airline safety, and for other purposes.

Aug. 1, 2010
[H.R. 1900]

Airline Safety and Federal Aviation Administration Extension Act of 2010.
49 USC 40101 note.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Airline Safety and Federal Aviation Administration Extension Act of 2010".

SEC. 2. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Short title.
Sec. 2. Table of contents.

TITLE I—AIRPORT AND AIRWAY EXTENSION

Sec. 101. Extension of taxes funding Airport and Airway Trust Fund.
Sec. 102. Extension of Airport and Airway Trust Fund expenditure authority.
Sec. 103. Extension of airport improvement program.
Sec. 104. Extension of expiring authorities.
Sec. 105. Federal Aviation Administration operations.
Sec. 106. Air navigation facilities and equipment.
Sec. 107. Research, engineering, and development.

TITLE II—AIRLINE SAFETY AND PILOT TRAINING IMPROVEMENT

Sec. 201. Definitions.
Sec. 202. Secretary of Transportation response to safety recommendations.
Sec. 203. FAA pilot records database.
Sec. 204. FAA Task Force on Air Carrier Safety and Pilot Training.
Sec. 205. Aviation safety inspectors and operational research analysis.
Sec. 206. Flight crewmember mentoring, professional development, and leadership.
Sec. 207. Flight crewmember pairing and crew resource management techniques.
Sec. 208. Implementation of NTSB flight crewmember training recommendations.
Sec. 209. FAA rulemaking on training programs.
Sec. 210. Disclosure of air carriers operating flights for tickets sold for air transportation.
Sec. 211. Safety inspections of regional air carriers.
Sec. 212. Pilot fatigue.
Sec. 213. Voluntary safety programs.
Sec. 214. ASAP and FOQA implementation plan.
Sec. 215. Safety management systems.
Sec. 216. Flight crewmember screening and qualifications.
Sec. 217. Airline transport pilot certification.

Federal Aviation Administration

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Public Law 111-216

- **Section 216 requires the FAA to complete rulemaking to—**
  - Require all part 121 pilots to hold an ATP certificate
  - Require an appropriate amount of multiengine flight time

- **Section 217 requires the FAA to complete rulemaking to—**
  - Revise the requirements for an ATP certificate
  - Allows for a reduction in the 1,500 hours required for an ATP certificate based upon academic coursework

Section 217

ATP Certificate Minimum Requirements

- To be qualified an individual shall have received flight training, academic training, or operational experience that will prepare a pilot, at a minimum, to—

  (A) function effectively in a multipilot environment;

  (B) function effectively in adverse weather conditions, including icing conditions;

  (C) function effectively during high altitude operations;

  (D) adhere to the highest professional standards; and

  (E) function effectively in an air carrier operational environment.

- The total flight time required for an ATP certificate shall include— *sufficient flight hours, in difficult operational conditions that may be encountered by an air carrier to enable a pilot to operate safely in such conditions.*

FOQ NPRM

- **February 29, 2012: published for public comment**

- **More than 550 comments of which about 120 were specific to the ATP CTP**

- **ATP CTP Hot Topics –**
  - Subject matter
  - Requirement for FSTD training

FOQ Final Rule

- **Published July 15, 2013**

- **Modified the ATP-Airplane certificate requirements**

- **Established training requirements for the ATP-Airplane Multiengine Class Rating in § 61.156**

- **Effective August 1, 2014, completion of the training in § 61.156 is required to be eligible for the ATP Multiengine Airplane Knowledge Test**

- **Training providers must be FAA-approved**

ATP Certification Training Program

ATP CTP

- Prescriptive ground and FSTD training requirements
- Parts 121 & 135 Training Providers:
  - The training program <u>must be separate</u> from an air carrier's approved training program
- Parts 141 & 142 Training Providers:
  - The training program <u>must be in a stand-alone TCO or curriculum, or all ATP CTP content completed first</u>
- An individual cannot receive credit towards the ATP CTP for other training received – an entire approved course must be completed

Note: § 121.419 permits a reduction in the initial ground training footprint for those pilots who have completed the ATP CTP. The carrier should work with its POI if it wishes to have that approved.

§ 61.156 – Academic Training

At least 30 hours of classroom instruction −

(1) At least 8 hours of instruction on aerodynamics including high altitude operations;

(2) At least 2 hours of instruction on meteorology, including adverse weather phenomena and weather detection systems; and

(3) At least 14 hours of instruction on air carrier operations, including the following areas:

> **(i) Physiology;**
>
> **(ii) Communications;**
>
> **(iii) Checklist philosophy;**
>
> **(iv) Operational control;**
>
> **(v) Minimum equipment list/configuration deviation list;**
>
> **(vi) Ground operations;**
>
> **(vii) Turbine engines;**
>
> **(viii) Transport category aircraft performance;**
>
> **(ix) Automation, navigation, and flight path warning systems.**

(4) At least 6 hours of instruction on leadership, professional development, crew resource management, and safety culture.

§ 61.156 – FSTD Training

At least 10 hours of training in an FSTD qualified under part 60 that represents a multiengine turbine airplane −

(1) At least 6 hours of training in a Level C or higher FFS that represents a multiengine turbine airplane with a maximum takeoff weight of 40,000 pounds or greater.

　　(i) Low energy states/stalls;

　　(ii) Upset recovery techniques; and

　　(iii) Adverse weather conditions, including icing, thunderstorms, and crosswinds with gusts.

(2) The remaining FSTD training may be completed in a Level 4 or higher FSTD.
　　(i) Navigation including flight management systems; and
　　(ii) Automation including autoflight.

Instructor Qualifications

- **§§ 121.410, 135.336, 141.33, 142.54**
- **All instructors must:**
  – Hold an ATP certificate with an airplane category multiengine class rating
  – Have at least 2 years of air carrier experience
- **FSTD instructors must:**
  – Have a type rating for the airplane the FSTD represents

Note: Subject matter experts may be used in the classroom provided a qualified instructor is present.

Instructor Training Requirements

- **Ground and FSTD instructors must:**
  - *Receive <u>initial training</u> on the <u>course material</u> **AND** <u>the following topics</u>:*
    - The fundamental principles of the learning process;
    - Elements of effective teaching, instruction methods, and techniques;
    - Instructor duties, privileges, responsibilities, and limitations;
    - Training policies and procedures; and
    - Evaluation.

Instructor Training Requirements

- **FSTD instructors must:**
  - Receive _initial and annual recurrent_ training on:
    - Proper operation of flight simulator and FTD controls and systems;
    - Proper operation of environmental and fault panels;
    - Data and motion limitations of simulation;
    - Minimum equipment requirements for each curriculum; and
    - The tasks and maneuvers that will be demonstrated in the FSTD.

Academic Evaluation Requirements

- **§§ 121.410, 135.336, & 142.54; part 141, appendix K**

- **Training providers are required to conduct evaluations to ensure training techniques, procedures, and standards for the course are acceptable**

- **Comprehensive written test**

Advisory Circular 61-138

- **Further expands upon major topics in § 61.156**
- **Provides greater detail on the subject material outlined in the regulation**
- **Sets forth the learning objectives that should be the goal of each section.**
- **Provides FSTD philosophy**
  - Demonstration-based tasks (D)
  - Experience-based tasks (E)
- **Includes sample training scenarios for upset prevention & recovery training**
- **Points to AC 120-109 for stall training information**

Implementation: Where are we Today?

Inspector Job Aid

Inspector Guidance

Approval Process Overview

- **Applicant works with POI or TCPM**
  - Review § 61.156
  - Review AC 61-138
  - Reference Job Aid:
    http://www.faa.gov/pilots/training/atp/
  - Complete and sign Job Aid
  - Sign and forward to region once satisfied all requirements have been met
- **Region Review**
  - Follows similar review to validate requirements are met before sending to headquarters.

FAA HQ Review Process

- **Incoming request for review from Region goes to the following division for initial review:**

  - AFS-200: part 121, 135, 142 certificate holders
  - AFS-800: part 141 certificate holder

- **All programs are ultimately reviewed by both divisions for standardization across rule parts**

- **Recommendation for Approval Memos go back to the POI/TCPM**

Approved Programs

1. ERAU – Daytona (142)	**8. AeroStar Training Services, LLC** (142)
2. ERAU – Prescott (141)	**9. Air Wisconsin Airlines** (121)
3. ABX Air Inc. (142)	**10. Piedmont Airlines** (121)
4. Aerosim Training Solutions (142)	**11. Pan Am International Flight Academy** (142)
5. CAE SimuFlite, Inc. (142)	**12. Higher Power** (142)
6. ExpressJet Airlines, Inc. (121)	**13. PSA Airlines** (121)
7. FlightSafety International, Inc. (142)	**14. SkyWest Airlines, Inc.** (121)

- **1 additional course has completed HQ review** (142)
- **5 additional courses at HQ for review**
  - 121 (1); 142 (4)
- **http://www.faa.gov/pilots/training/atp/**

What is on the Horizon?

Lessons Learned

- **HQ review time is significantly longer than anticipated & better guidance is needed**

- **Untested new processes will always require revision**

- **Processes have had to adapt to unanticipated situations:**
  - Correspondence & coordination processes
  - File storage and sharing
  - Additional information requests
  - Approval Memos with findings
  - Amending OpsSpecs/TSpecs
  - Initial approval extensions

Lessons Learned

- **Inspector 8900.1 guidance may have been too abbreviated**

- **Job Aid was good to help with checking the regulatory boxes**

- **Job Aid was not helpful in establishing review guidelines**

- **AC provided good detail on subject content and desired learning objectives**

- **AC was less helpful on identifying submission expectations**

ATP Knowledge Test Data

- **ATP – Airplane** (Old Test)
  - Monthly average 2011-2013: 608
  - Jan-July 2014: 25,600+
- **ATP Multiengine Airplane** (New Test)
  - 2014: 59
  - 2015: 1115
  - 2016: Trend shows the number of tests taken is continuing to increase each month
  - Pass Rate: 95%

ATP Certificate Data

YEAR	INITIAL ATP - ME	RESTRICTED ATP
2013 (starting 7/15)	2,759	37
2014	7,442	787
2015	6,341	1,203
2016 (thru Feb)	1,031	277
TOTAL	17,573	2,074

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