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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

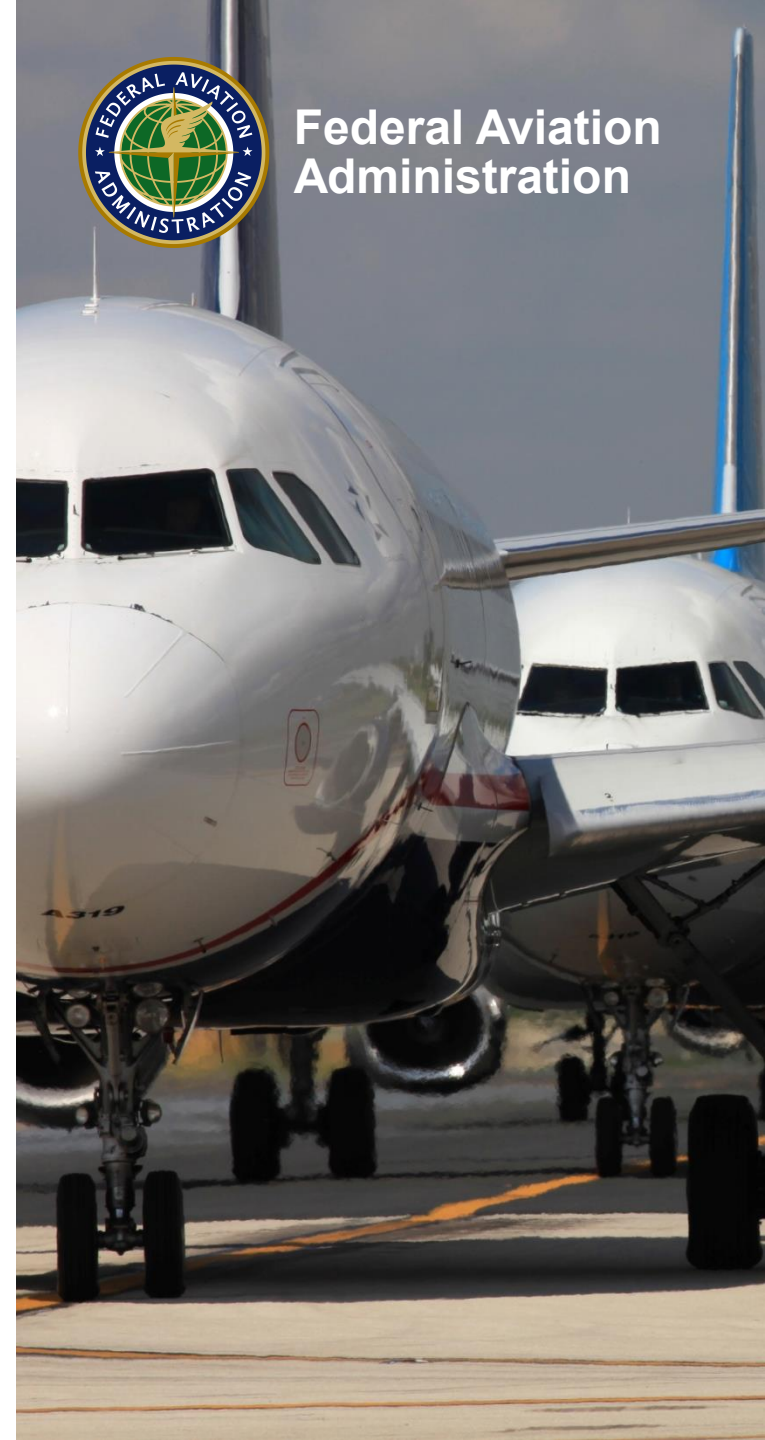
Presented to: NTAS/PS&DS

By: Barbara Adams, FAA, AFS-280

Date: March 14, 2016



Federal Aviation
Administration



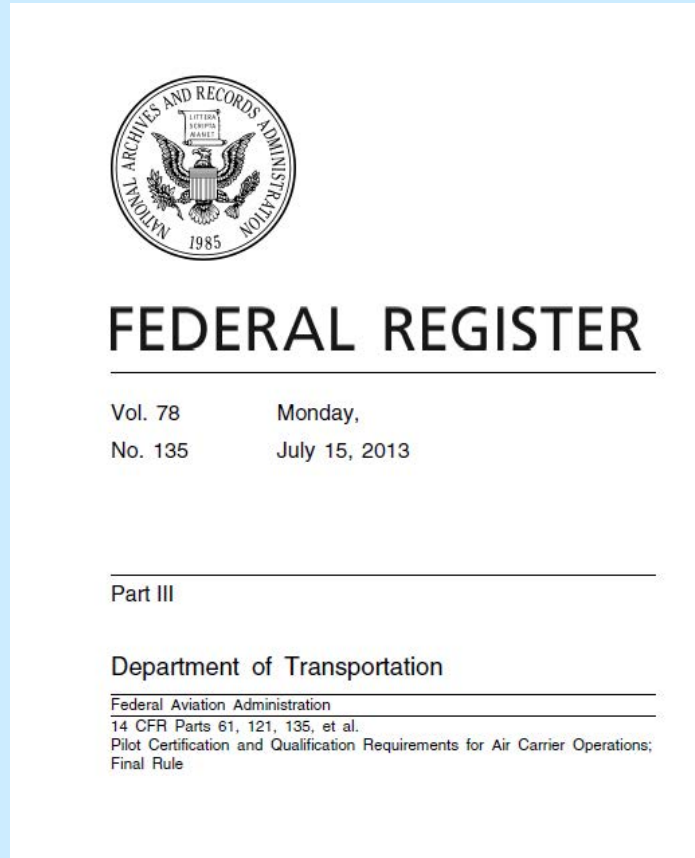
Agenda

- **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



Airline Safety and Federal Aviation Administration Extension Act of 2010

Public Law 111-216
111th Congress

An Act

To amend the Internal Revenue Code of 1986 to extend the funding and expenditures 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.

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 expenditures 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 responses 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 analysts.
- 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 POQA implementation plan.
- Sec. 215. Safety management systems.
- Sec. 216. Flight crewmember screening and qualifications.
- Sec. 217. Airline transport pilot certification.

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

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



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 must be separate from an air carrier's approved training program
- Parts 141 & 142 Training Providers:
 - The training program must be in a stand-alone TCO or curriculum, or all ATP CTP content completed first
- 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 initial training on the course material **AND** the following topics:
 - 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?

**Airline Transport Pilot (ATP) – Airplane Multiengine
Applicant Qualifications Job Aid**
Applicants Engaged in Operations Under 14 CFR Part 121, 125, 135, or 91K

APPLICANT NAME:	DATE:
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I. General Eligibility	
A. Applicant Age § 61.153(a)(1) and (2)	
1.	At least 23 years old for an airline transport pilot (ATP) certificate (II.A. below)
2.	At least 21 years old for a restricted privileges ATP certificate (II.B. below)
B. English Language Requirement	
C. Good Moral Character	
D. Pilot Qualifications	
1.	FAA commercial pilot certificate and an instrument rating OR FAA ATP certificate with restricted privileges
2.	Official U.S. military records as prescribed in § 61.73
3.	A foreign commercial pilot license with an instrument rating or a foreign ATP certificate with instrument privileges issued by an International Civil Aviation Organization (ICAO) country and contains no limitations. § 61.71(c)
E. Valid Certified Knowledge Test Report (See attached decision trees)	
1.	ATP – Airplane completed on or before July 31, 2014 OR
2.	ATP – Multiengine Class completed after July 31, 2014
F. Valid Graduation Certificate from an ATP Certification Training Program (CTP) (See attached decision trees)	

Inspector Job Aid

10/21/13

8900.1 CHG 297

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 62 THE AIRLINE TRANSPORT PILOT CERTIFICATION TRAINING PROGRAM

Section 1 Airline Transport Pilot Certification Training Program Approval Process for 14 CFR Parts 121, 135, and 142

3-4917 APPLICABILITY. This section contains direction and guidance to be used by Federal Aviation Administration (FAA) personnel responsible for the evaluation, approval, and surveillance of Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 135, and 142 airline transport pilot (ATP) Certification Training Programs (CTP).

3-4918 GENERAL. The ATP CTP is required by 14 CFR part 61, § 61.156 for applicants of an ATP certificate with airplane category multiengine class rating or an ATP certificate issued concurrently with an airplane type rating, and is intended to prepare the applicant to operate safely in those operations which require an ATP certificate by rule. The ATP CTP may be administered by a 14 CFR part 119 certificate holder authorized to conduct operations under parts 121 and 135 or by an air agency certificated under 14 CFR parts 141 and 142.

A. Scope of Training. The ATP CTP is a prerequisite for the FAA's highest certificate and includes training in: aerodynamics, automation, adverse weather conditions, air carrier operations, transport airplane performance, professionalism, and leadership and development. The program is designed to be a pilot's first exposure to large turbine aircraft and how those aircraft perform at high altitude and in adverse weather phenomenon. Furthermore, the program will bridge the gap in knowledge between a commercial pilot certificate and the knowledge a pilot should have prior to entering an air carrier environment. Bridging the knowledge gap is most effectively completed through a modern flight training program that methodically integrates academic training, practical training, and flight experience. The training in the flight experience portion of the program directly correlates to the academic concepts with scenario-based training (SBT), practical applications, demonstrations, and multiengine

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?



Advisory Circular

Subject: Airline Transport Pilot Certification Training Program **Date:** 7/2/13 **AC No:** 61-138
Initiated by: AFS-200 **Change:**

1. PURPOSE. This advisory circular (AC) provides information and courseware guidelines to authorized providers, to aid in the development of a training program which meets the requirements of Title 14 of the Code of Federal Regulations (14 CFR) part 61, § 61.156.

2. AUDIENCE. The primary audience for this AC is training personnel involved in the development and delivery of an airline transport pilot (ATP) Certification Training Program (CTP) under 14 CFR part 121, 135, 141, or 142. Pilot applicants for an ATP certificate with an airplane category multiengine class rating or an ATP certificate issued concurrently with a type rating should also be familiar with the contents of this AC.

Airline Transport Pilot (ATP) – Airplane Multiengine Applicant Qualifications Job Aid Applicants Engaged in Operations Under 14 CFR Part 121, 135, or 91K

APPLICANT NAME: _____ DATE: _____

I. General Eligibility

A. Applicant Age § 61.153(a)(1) and (2)

1. At least 23 years old for an airline transport pilot (ATP) certificate (II.A. below)
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B. English Language Requirement

C. Good Moral Character

D. Pilot Qualifications

1. FAA commercial pilot certificate and an instrument rating OR FAA ATP certificate with restricted privileges
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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 62 THE AIRLINE TRANSPORT PILOT CERTIFICATION TRAINING PROGRAM

Section 2 Airline Transport Pilot Certification Training Program Approval Process for a 14 CFR Part 141 Pilot School

3-4944 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Initial/New or Major Revision. 1368.

B. Added Rating. 1369.

3-4945 OBJECTIVE. This section establishes how the Federal Aviation Administration (FAA) shall grant or withdraw approval of an airline transport pilot (ATP) Certification Training Program (CTP). The approval process is applicable to qualified Title 14 of the Code of Federal Regulations (14 CFR) part 141 certificate holders that apply for the ATP CTP. Successful completion of this task will result in the application package being forwarded to the inspector's respective region and the General Aviation and Commercial Division (AFS-800) for coordination and initial/final approval by the principal operations inspector (POI).



Federal Aviation
 Administration

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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