



Professional Aviation Board of Certification

Knowledge & Competency Testing of New Pro Pilots Fact Sheet: 4/01/17

Problem: Growing global pilot shortage

- Threatens the effectiveness, growth and safety of air transportation
- Limits local, state and regional economic growth

The Shortage: New Commercial Pilots with Instrument Ratings

- Demand 30,850 / Yr (Boeing: Fall 2016)
- Production 23,000 / Yr (NAA Licensing Reports) = Shortage of 7,850 / Yr

One cause of the shortage: poor quality initial (Ab Initio) pilot training

- Inconsistent and outdated training standards
- Outdated and compromised knowledge testing

Result: Holding a pilot license does NOT assure preparedness

Solution: PABC's knowledge testing system reduces the shortage by

- **Providing**
 - Stakeholder-defined *Ab Initio* training criteria
 - Criteria that meet / exceed ICAO and State NAA training standards
 - Current, comprehensive & secure knowledge & competency testing that
 - Proves pilot preparedness for entry into airline New Hire training
 - Identifies topics needing added emphasis by trainers
- Recognizing high quality Ab Initio training providers
- Increasing New Hire success rates

Result: The pool of well-prepared new pilots will be significantly increased

Development of PABC's stakeholder-defined testing system is

- **Based on methods**
 - Proven in 2015 by FAA-funded research
 - Defined by the International Standards Organization (ISO)
- **Supported by**
 - Funds donated by industry stakeholders
 - Subject Matter Experts (SMEs) from around the world
 - The European Aviation Safety Agency's new Ab Initio training standards
 - Industry *Best Practices*, changes in technology & safety report data

Timeline for developing and refining PABC's testing system

- 2 years for fundraising and development of the first set of tests (2017-2018)
- 5 years for Operational Test & Evaluation (OT&E) refinement (2019-2023)
 - Expanding the bank of test items and scenario-based questions
 - Qualifying this test as an *Alternative Means of Compliance* (AMC) for *Airline Transport Pilot* (ATP) License testing by *National Aviation Authorities* (NAAs)

Initial Benefits from PABC testing, pending funding, will begin in 2019



PABC’s Initial Operational Test & Evaluation (IOT&E) Goals

- Refine & expand the depth, scope, IT features and operation of PABC testing
 - Depth and scope – to strengthen test effectiveness and security
 - IT (Information Technology) – to enhance the realism of computer testing
- Demonstrate the benefits of PABC’s testing over most NAA exams by
 - Being more current, comprehensive, relevant and secure
 - Providing feedback for tested pilots, trainers, the industry and NAAs
- Prove the business case for having better trained Ab Initio graduates
- Enable ICAO and NAAs to assess the benefits from:
 - Receiving annual training criteria updates from PABC
 - Using PABC’s tests as a model for upgrading their training & exam standards
 - Pilot mobility when NAAs accept PABC’s tests as AMCs for their ATP exams

Estimated cost of PABC’s development and IOT&E

- 2-year Preparatory Phase: \$1.5 mil / Yr (USD) S/Total: \$ 3.0 mil (2yrs)
- 5-year Operational Phase: \$3.0 mil / Yr S/Total: \$15.0 mil (5yrs)
- Grand Total: \$18.0 mil (7yrs)

Funding sources

- Donations contributed by the 7 Stakeholders who benefit from this endeavor:
 1-Operators 2-Trainers 3-Insurers 4-Manufacturers 5-Pilots 6-the Public & 7-Regulators

Continuing Professional Development (CPD) – the key to future global staffing

- CPD involves study & activities that keep pilots aware of changes in the industry
- Each year, PABC pilots must keep their certification current by participating in activities that qualify for CPD credit.
- Where PABC Certification is accepted as an AMC for NAA exams, pilots who met CPD requirements will easily convert their licenses to take jobs in *those* States.
- PABC will charge \$50/year to identify CPD activities and record pilots’ credits.

Funding for sustained operations

- Revenue from testing and CPD fees will:
 - Increase as employers use PABC Certification as a *preferred* hiring credential
 - Be greatly enhanced when NAAs accept PABC tests as an AMC for their exams

PABC’s projected revenue following IOT&E vs. our \$3.0 mil annual budget

| Year | 2024 | 2025 | 2026 |
|---------|-------------|-------------|-------------|
| Revenue | \$2,250,000 | \$2,916,500 | \$3,599,500 |

Training Facts to Consider

- In 2015, Ryanair reported: 50% of their pilot applicants were *unfit to interview*
- Airlines report that 10-20% of new hire pilots *fail* Initial Type Rating training
- Each pilot that fails costs the airline approximately \$50,000 (USD)

Conclusion:

**Quality Ab Initio training & testing of aspiring professional pilots
 Shrinks the shortage – Supports operational growth – Enhances safety**