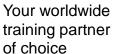
# Multi-Crew Pilot License & Evidence Based Training

Training correlation – RPAS

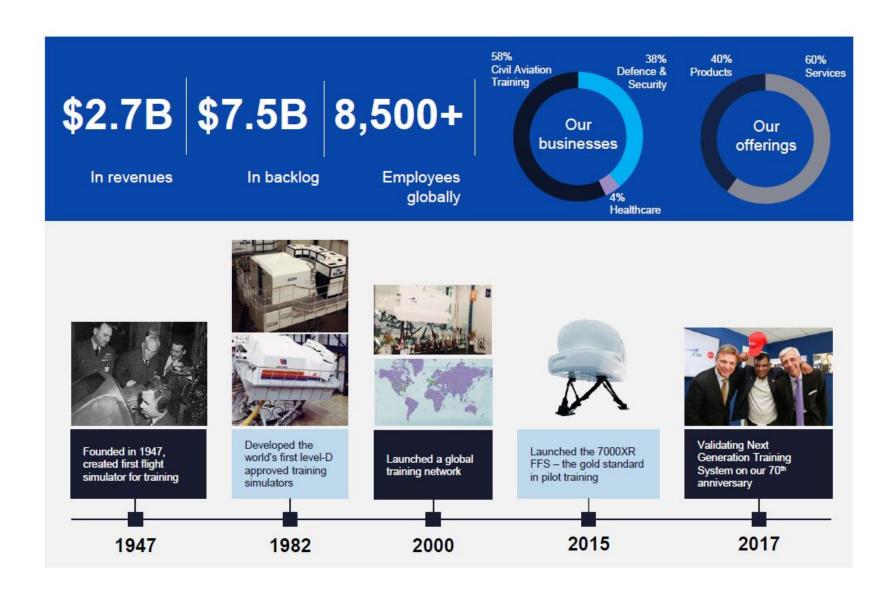
20 September 2017 Tim Schoenauer







#### CAE AT A GLANCE - 70 YEARS OF TRAINING INNOVATION



As of FY17



#### TRAINING PROGRAMS...DOES ONE SIZE FIT ALL?

Type of operation, location, systems, regulation, environmental, etc.





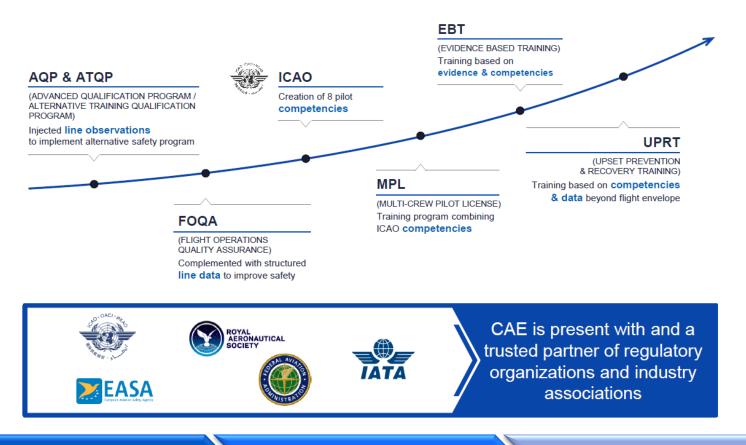




**Instructional Design Process (ISD)** 



### DATA & COMPETENCY FRAMEWORKS BEING INCREASINGLY LEVERAGED IN PILOT TRAINING



**Pilot Selection** 

ISD INITIAL Training Program

RECURRENT TRAINING

Attitude & Aptitude
Modern Selection Tools

- •ISD process to define your training needs
- •Building-block, reduced distraction learning
- •EBT and enhanced recurrent training
- •Based on PRACTICAL, relevant and timely DATA

Select the right Candidate. Train practical elements. Continuously Improve.



#### PROFESSIONAL CADET SELECTION PROCESS

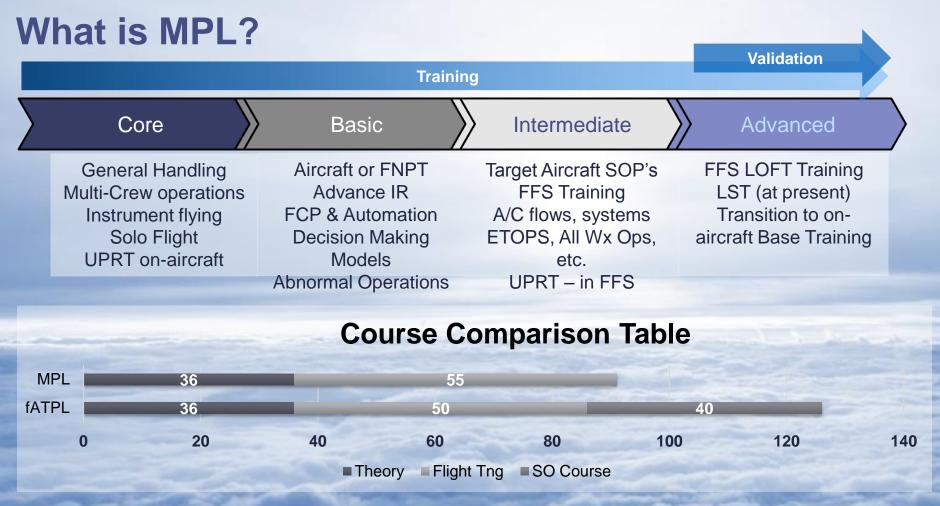
Develop airline partner's Match cadet Objectively assess pilot profile competencies to airline needs Airline partner's pilot profile **Trainability potential** Accuracy and technical ability \* SOP / process adherence \* Workload management \* Situational awareness \* Leadership, communication and decision skills Assess & match cadet to airline profile Objective Competency & math tests Personality Simulator Team-work based assessment profiling assessment exercises interviews process

#### **RPAV Correlation:**

- Hiring the right ATTITUDE & APTITUDE is the FOUNDATION
  - Use of modern Pilot selection tools



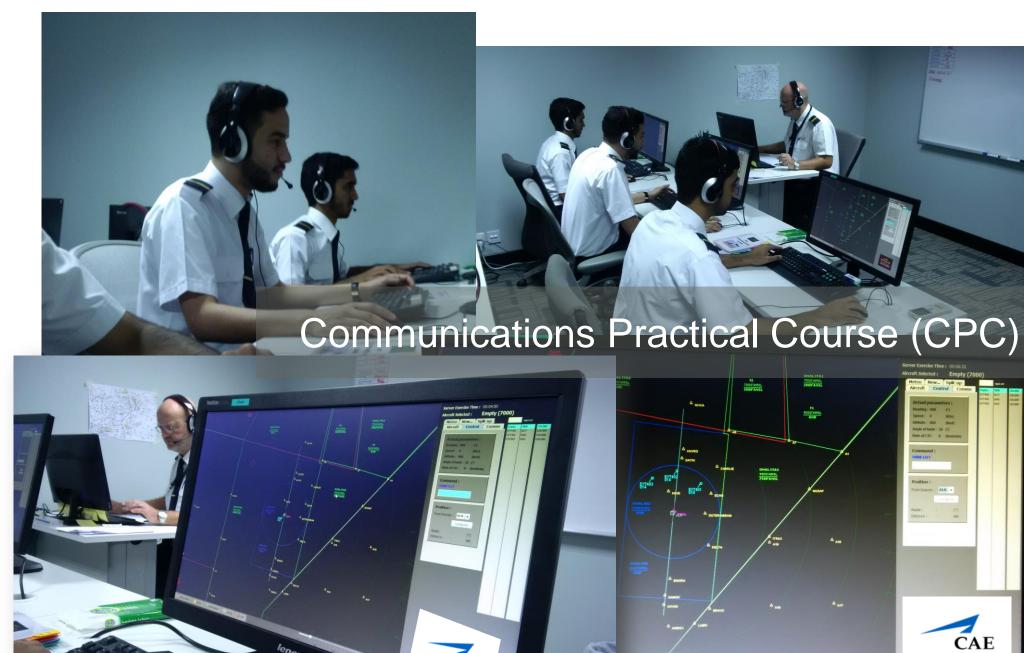
### **MULTI CREW PILOT LICENSE**



HOW? reduced distraction & building blocks

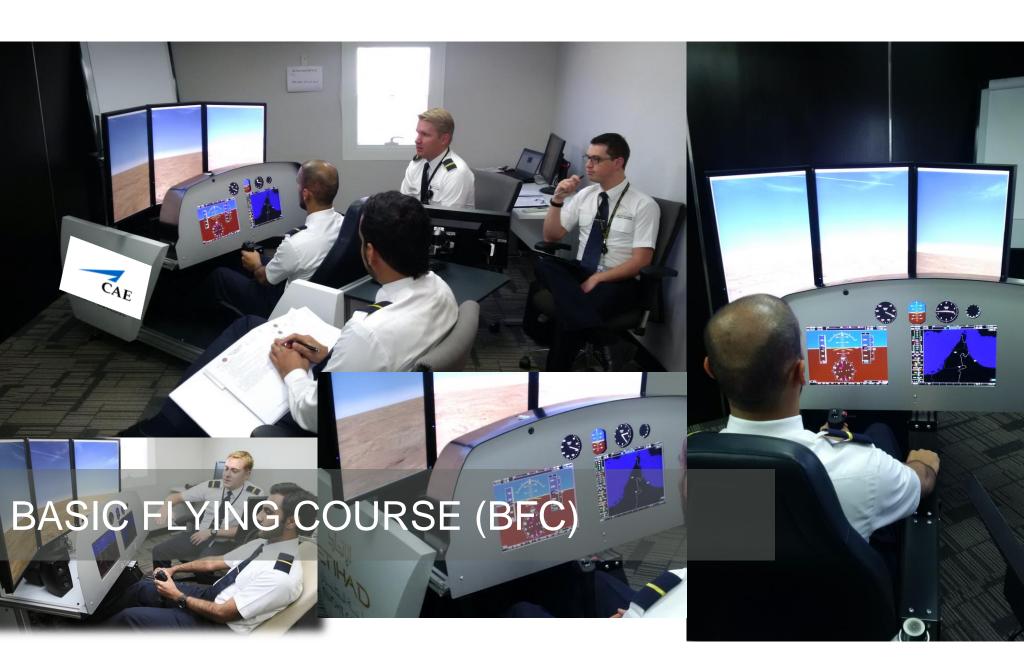
More RELEVANT way to train Multi-crew Transport Category Pilots







 $c_{AE}$ 





## MULTI-CREW PILOT LICENSE Initial training - correlations to RPAV

MPL is a minimally-prescriptive, customized ISD, training program based on:

- 1. Operational environment;
- 2. End-goal aircraft from B747 to CRJ;
- Training resources available;
- Time and support from the airline and authority;



MPL is competency-based not task-based learning. Scenario-based training builds resilience – NCBI study<sup>1</sup> – "The ultimate value of skills courses should be measured not by performance immediately after training, but by performance after a time delay, preferably in a realistic setting."

Performance assessment – Relative & Absolute grading throughout the course – evolution to ICAO Pilot Competency (8 competencies) mapping in later phases of training

Threat & Error Management (TEM) is embedded & reinforced throughout

#### **RPAV Correlation:**

- Customized training solutions for simple to complex RPAV
- TEM mindset mitigating threats & maintaining high situational awareness
- Continued assessment of Pilot competence based on 'normed' performance

<sup>1</sup>NCBI Study - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856544/



#### **EBT – RECURRENT TRAINING**

#### **EBT Fundamentals:**

- 1. Profile Evaluation, Maneuvers, Scenario-based training
  - 'Resilience-based LOFT training based on real,
  - practical data'
- 2. Facilitated debriefings
  - Grounded self-actualization

#### **Training Pilot Competencies:**

- 1. Application of Procedures (APK)
- 2. Communication (COM)
- 3. Flight path management automation (FPA)
- 4. Flight path management manual (FPM)
- 5. Leadership & teamwork (LTW)
- 6. Problem solving & decision-making (PSD)
- 7. Situation awareness (SAW)
- 8. Workload management (WLM)

LOSA, safety reports, FDA, global trends, training criticality survey, etc.

Data Analysis

Continuous improvement

Recurrent Training Assessment

Implementation of EBT 3 year cycle

Instructor TtT EBT Philosophy

#### **RPAV Correlation:**

- Data Driven training is an effective way to train resilience
  - Pilot competencies DO APPLY to RPAV operations
  - Proper Train the Trainer for your Instructors is CRITICAL



### **TAKEAWAYS**

- Competency-based training is training to **proficiency** (not task training). **Practical, scenario-based training trains resilience** 

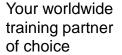
 One-size training does NOT fit all. Modern training solutions must meet the demands of YOUR organization

- Properly designed training programs are more relevant and require continuous improvement

- ICAO PANS Training implementation guides (9868 PANS Training) details the **Instructional Design Process** 

- Lessons learned...consider an experienced training partner







Thank you! timothy.Schoenauer@cae.com +1.719.650.7513 Your worldwide of choice