



# ICAO NGAP Symposium March 2010 Original Equipment Manufacturers and Training

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An AleniaAeronautics and EADS joint venture





# ATR Pilot Training Paradigm

- 1. Introduction**
2. Airlines « Heritage »
3. ATR Training Center response
  1. Pilot training programs
  2. Instructors
  3. Training tools
4. Diffusion of ATR training standard
5. Conclusion

## WHO IS ATR

- **ATR : Avion de Transport Regional created in 1982**
- **ATR is fewer than 1000 persons**
- **ATR: 871 aircrafts in the world**
- **ATR is approaching the thousandth order**
- **ATR delivered 59 aircrafts in 2008 and 58 in 2009**



## ATC: ATR TRAINING CENTER

- **ATC is the ATR Training Center**
- **ATC: 3 Training Centers in the World: Toulouse, Bangkok and Kuala Lumpur**
- **ATC is fewer than 80 persons including:**
  - 10 TRI/TRE
  - 12 SFI
  - 8 AMI
  - 3GI

**All Training Programs and Training Tools are approved by the DGAC member of EASA**



## Who are typical ATR operators?

- **Short and mid-range airlines (140 operators)**
  - ✓ **Location:** worldwide (80 countries) with a strong presence in emerging Markets
  - ✓ **Fleet:**
    - Few A/Cs (5-10)
    - Less than 100 pilots
  - ✓ **Training program:** dependent on **international minima and exemptions** obtained from local authorities to accommodate for **specific** challenges (distance, budget...)



# What challenges are ATR operators facing today?

- 1 Booming demand for pilots over the past years**
- ✓ Scarcity of experienced pilots leading to a high turnover
  - ➔ Lack of entry-level skills and pilot experience

- 4 Technical Challenges**
- ✓ Increasing complexity in operating aircraft systems
  - ✓ Increasing congestion of air traffic



- 2 Heavy costs of training**
- ✓ Unfavourable economics of classic (FFS) simulation
  - ✓ Reliance on third-party training
  - ✓ Remoteness of the training centres

- 3 Cost pressure**
- ✓ Fierce competition
  - ✓ Security costs
  - ✓ Environmental Constraints (Carbon tax)
  - ✓ Rising Fuel Costs



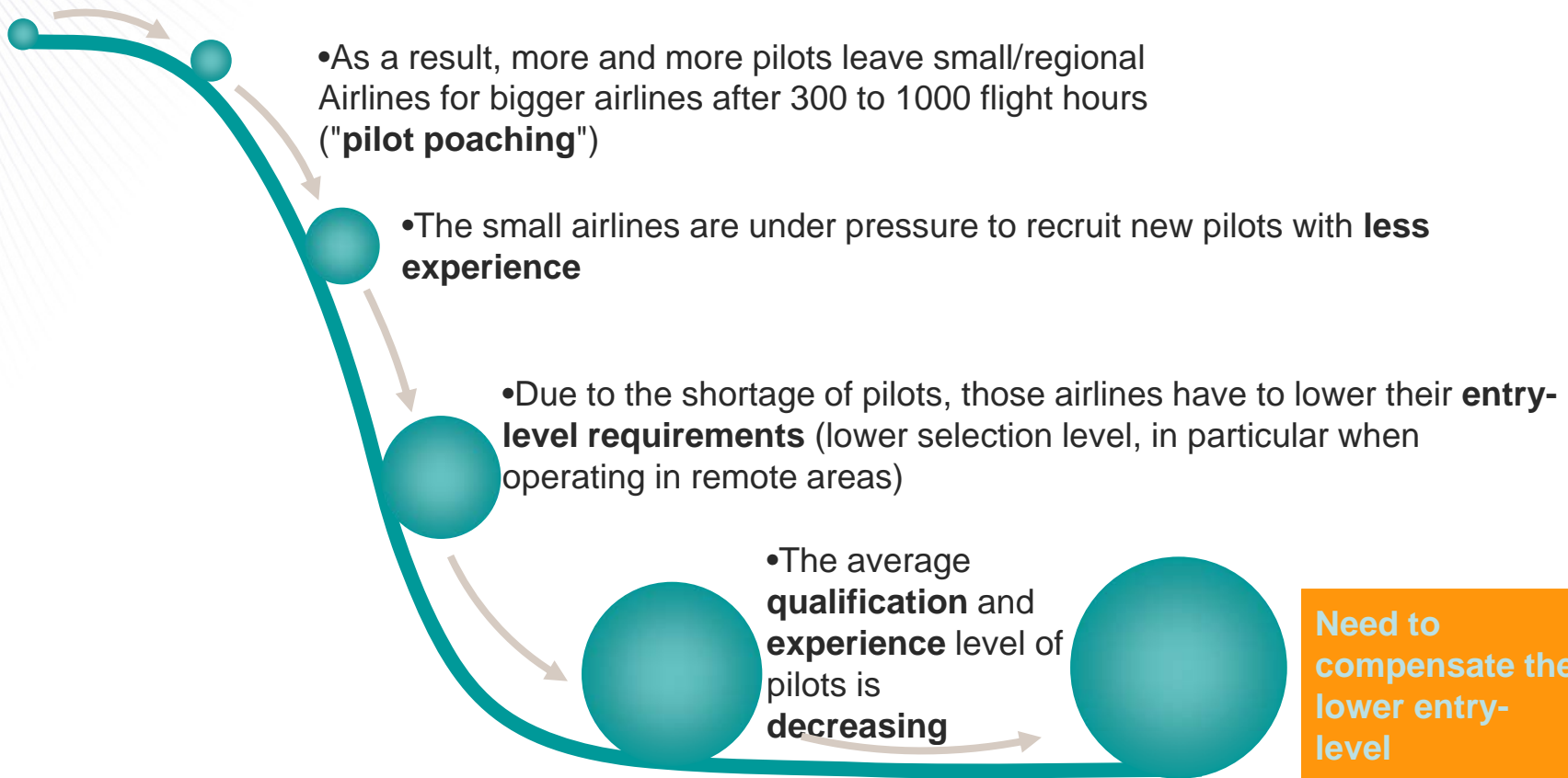
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## Regional airlines see the average level of their crews decreasing.

- All Airlines face a **shortage** of experienced pilots



Source: Interviews, Roland Berger analysis





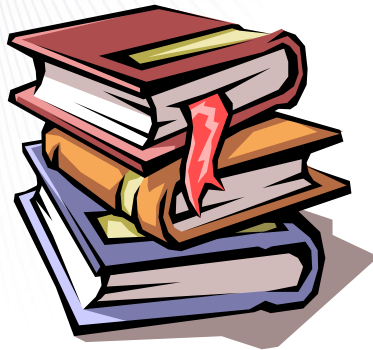
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## Necessity to reinforce value of training

### Training Programs:

- 4 weeks short course
- 5 weeks Standard course
- 6 weeks for first Type Rating including Multi Crew Course
- Dedicated type rating requested by costumers (6W + 3 weeks pre-entry course program in India)
- T/OFFs and Landings on the airplane, for each pilot regardless of the experience





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## ATC Request and Standardization

All instructors must have JAR/FCL requirements before entry

### FOR GI

- Theoretical ATPL+ valid CPL/IR/ME+ valid instructor qualification
- Full ATR Type rating + 1 theoretical type rating as observer + 1 in supervision

### FOR SFI

- Full ATR 4 weeks Type Rating including ATR philosophy
- Difference Courses
- Full ATR SFI course + 1 supervision
- 2 days of HF and CRM course
- 1 supervision as SFI by a HF and CRM specialist

### FOR TRI

On turboprop JAR 25 aircraft 1000h mini including mini 500h as Captain


Idem SFI +

3h of instructor training flight:

- Training technics in flight especially for Touch and Go
- Training from the right and left seat



# Instructors Recurrent Training

	<p><b>JAR-FCL1 Requirements</b></p>	<p><b>ATR Requirements = JAR FCL1 + ...</b></p>
<p><b>GROUND SCHOOL INSTRUCTORS</b></p>	<p>None</p>	<ul style="list-style-type: none"> <li>- Theoretical check</li> <li>- 2 simulator sessions</li> <li>- Safety Course</li> </ul>



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# A Complete suite of training tools adapted to each training phase



CBT



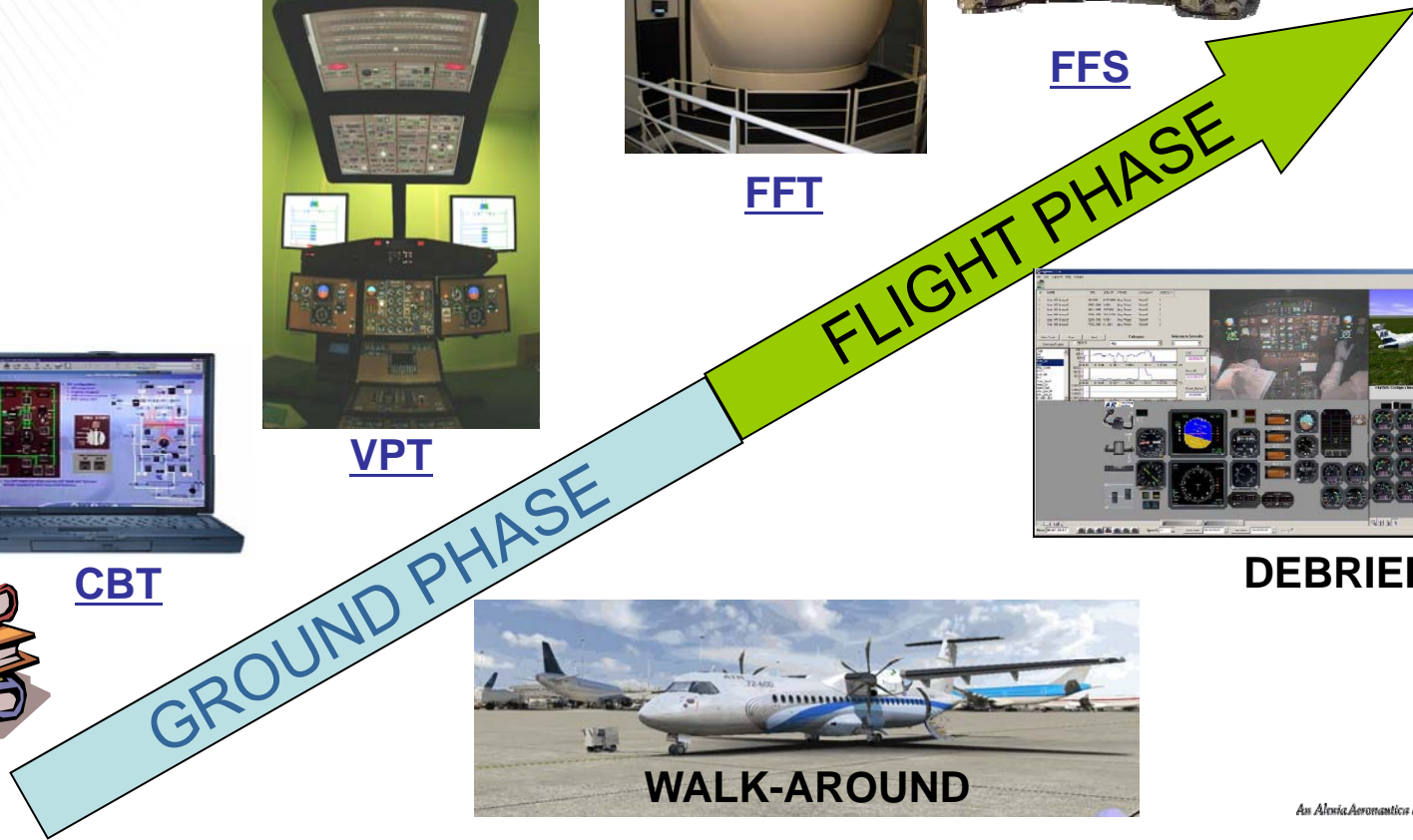
VPT



FFT



FFS



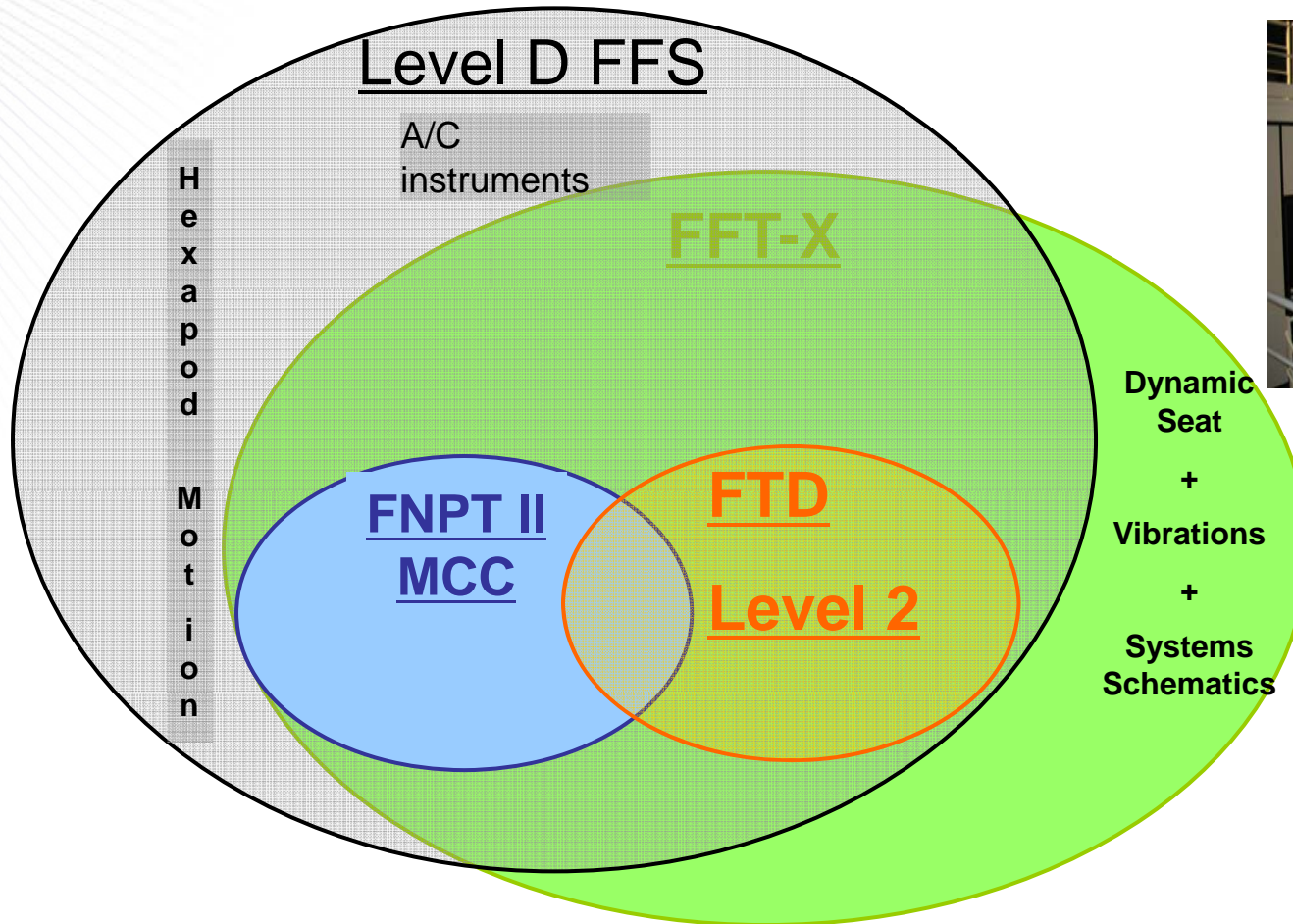
**DEBRIEFING**



**WALK-AROUND**



# The FFT-X<sup>®</sup> : A new concept of Flight Synthetic Training Device







Do we need an FFS for any pilot task to be trained ?



FFT-X

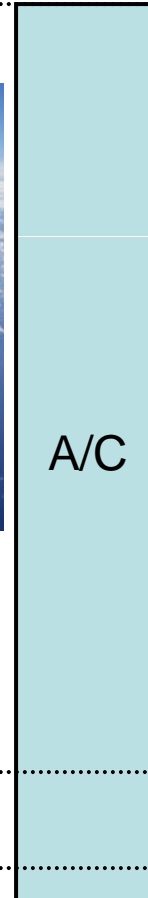
OR



FFS Level D

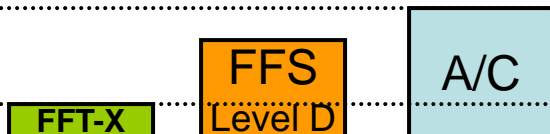
## Why an ATR FFT-X® ?

~160 M\$



~16 M\$

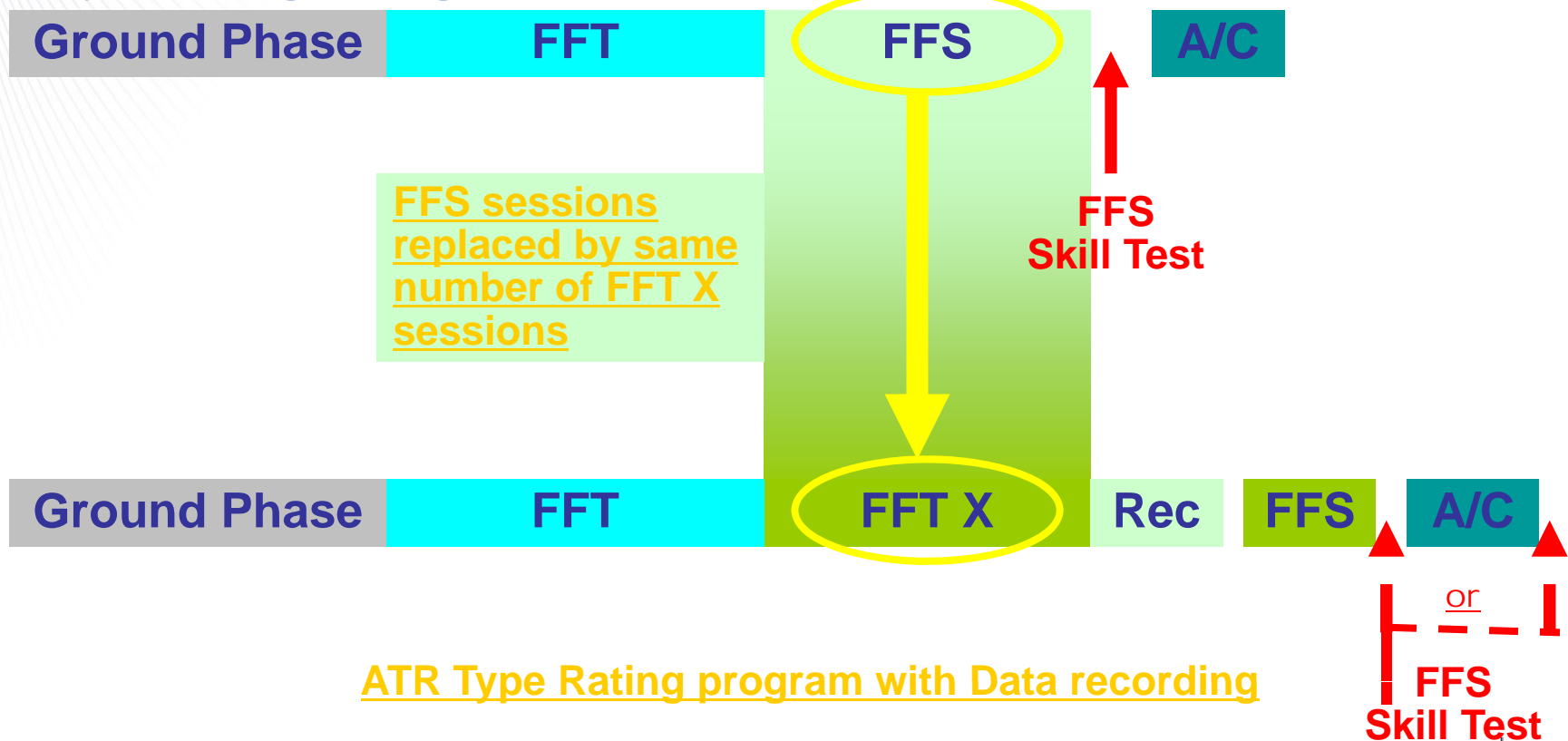
~ 4 M\$





## On-going studies in partnership with USDOT Research and Innovative Technology Administration Volpe National Transportation Systems Center

### Type Ratings using FFT X instead of FFS under French DGAC approval



ATR Type Rating program with Data recording



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## ATR objectives to develop a worldwide training standard are to:

- Provide more affordable training to its customers, closer to their home base: Toulouse, Bangkok, Kuala Lumpur and we hope in 2010 Toronto, Bangalore, Paris and Johannesburg
- Guarantee the best Quality / Costs ratio
- Guarantee an ATR control and standardization on programs, training tools and instructors



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## ATR TRAINING PARADIGM PROMOTES:

- **A HIGH LEVEL OF TECHNICAL KNOWLEDGE** which is necessary with the increasing complexity of the cockpits
- **AN INNOVATIVE AND EFFICIENT USE OF THE AVAILABLE TECHNOLOGY IN TERMS OF TRAINING TOOLS**
  - ✓ Walk-around
  - ✓ Virtual Procedure Trainer
  - ✓ Comprehensive Briefing Station (GNSS, Training Documentation ...)
  - ✓ Full Flight Trainer as complement to the FFS
  - ✓ Debriefing Station
- **A HIGH LEVEL OF PRACTISE**
  - ✓ Highly qualified and standardized instructors
  - ✓ All programs with more simulator training than regulatory minimum
  - ✓ Base Training



## NEXT ATR CHALLENGES

- **Develop a difference course for the new ATR 600 using the E learning for the Glass Cockpit familiarization**
- **Develop a full ATR 600 type rating.**
- **Rewrite our Training Syllabi using TEM and CBT concepts**





# THANK YOU FOR YOUR ATTENTION

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