Pilot Demand – Fiction vs Reality

Capt. Tilmann Gabriel MBA FRAeS
Assistant Professor and Director MSc Aviation Management Programmes
Executive Chairman/President International Pilot Training Association
MSc Air Transport Management

Core Modules include:
- Airline Operations
- Air Transport Economics
- Airline Business

MSc Aircraft Maintenance Management

Core Modules include:
- Airline Maintenance
- Airline Operational Regulatory Compliance
- Airworthiness

MSc Air Safety Management

Core Modules include:
- Crisis Management
- Active Safety Management
- Safety Risk Management

Electives:
- Airline Ops Regulatory Comp.
- Airworthiness
- Airline Maintenance
- Airline Operations
- Airline Marketing
- Human Resource Management
- Air Transport Economics
- Financial Accounting
- Crisis Management
- Airline Fleet Planning
- Airline Business
- Human Factors
- Safety Mngmt - Tools and Methods
- Active Safety Management
- Psychology in Aviation Management
- Airport Operations
- Developing a Business Plan
- Air Accident Investigation
- Leadership in Organisations
- Airline Revenue Mngmt and Finance
- Safety Risk Management
- Sustainable Aviation
- Aviation Law

NEXT:
- MSc Airport Management
- MSc Aviation Psychology
Teaching Facilities Around the World

Our state-of-the-art classrooms provide a unique environment for studying, socialising and building your professional network

- London
- Dubai
- Frankfurt
- Next Nanjing and New Delhi
Changing IPTC to IPTA - A Major Improvement for the Aviation Industry
IPTA Role – NGAP Partnership

Working together for improved safety, quality and efficiency in global commercial aviation through training and recruitment

- Further reduce the commercial aircraft accident rate
- Enhance pilot, instructor and evaluator competence through training
- Improve & harmonise regulatory environment internationally
- Improve & harmonise standards and recommended practices internationally
- Drive initiatives to ensure a sustainable supply of competent pilots globally.
- Improve efficiency and drive down overheads by reducing the repetitive qualification of organisations, equipment and people.
- Identify and increase the adoption of best practices, innovation and excellence in pilot training and qualification.
IPTA Workstreams

- Helicopter Role Training (Gordon Woolley)
- Licensing & Regulation (Ray Elgy)
- Outreach, Retention & Recruitment (Capt Sanjay Sapra)
- Prevention of Loss of Control in Flight (Dr Wayne Martin)
- Training Devices (Mark Dransfield)
- Training Practices (Capt John Bent)
- Ground Training Practices (XXX)
- Training Providers (Peter Barrett)
## NGAP Pilot Outreach, Recruitment & Retention WS

**Workstream Members to represent all regions of the world**

- **Sanjay Sapra**  
  Chairman (Etihad Airways, UAE)
- **Rosalind Azouzi**  
  Vice Chairman (Royal Aeronautical Society, UK)
- **Lori Brown**  
  NGAP Chair (Western Michigan University, USA)
- **Suheil Abumariam**  
  MENA Region (Gulf Air, Bahrain)
- **Ousama Al Balaa**  
  North America (Balaa Aviation Consultants, Canada)
- **Paul Bates**  
  Australia & Pacific (University of Southern Queensland, Australia)
- **Jati Dhillon**  
  Indian Subcontinent (Himalaya Air, Nepal)
- **Marcelo Gomes**  
  South America (Embraer, Brazil)
- **Ben Lam**  
  China and South East Asia (Haite Aviation Training, China)
- **Tim Schoenauer**  
  North America (Etihad Airways, UAE)
- **Joanie Williams**  
  North America (Air Transport Association of Canada)
- **Simon Witts**  
  Europe (Aviation Skills Partnership, UK)
- **Peter Wolfe**  
  North America (Professional Aviation Board of Certification, USA)
New Terms of Reference (deliverables) defined:

- Provide pilot training, recruiting and retention best practices to the ICAO NGAP Outreach group to inventory practices used to attract, train, retain and educate pilots
- Examine industry attractiveness & recommend appropriate changes
- Examine financial arrangements for pilot training by region
- Examine barriers to pilot recruitment and retention & recommend appropriate changes
- Examine the lack of mutual recognition of pilot qualification & recommend appropriate changes
- Examine Age 40 Career Change pilot training
Future Strategies

- Embrace the new Shortfall of Pilots
- Establish THE Global Think Tank for Pilot Training and Regulations
- Prepare an acceptability for a ‘White Tail MPL’
- Combine Bachelor and ATP in a cost effective way (distant learning/ATP courses with credits for BSc or BA)
- What does the ATP Training for Millennial and beyond look like?
Air transport is a growth market

62% GROWTH OVER THE LAST TEN YEARS
Boeing Forecasts Rising Demand for Commercial Pilots and Technicians

1.1 million new airline pilots, technicians needed worldwide over next 20 years:

- 533,000 new commercial airline pilots
- 584,000 new commercial airline maintenance technicians

### New Deliveries

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<th>2016-2024</th>
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North America
Welcome
Generation Alpha
Our Future Pilots?
No thank you!
Too Boring
My Life is full of Opportunities

Take my Mum or Dad, they are bored in their job
Our mission is to provide a free, world-class education for anyone, anywhere.

Making learning fun.
It's hard to stay motivated when learning online, so we made Duolingo so fun that people would prefer picking up new skills over playing a game.
Gamification of Ground Training

- Distant learning, gamificated Teachware for BSc/BA plus ATP
- Teachware for Typerating, EBT, Recurrent, DG, CBT, etc, etc
- Higher Education, MSc/MBA
- Classrooms will become historic sites? Or Groupwork and Presentation sites.
- YOUR Time, YOUR Pace, YOUR Location
- Intrinsic Motivation
Via Evidence to Competence

- Training always OUTSIDE Cockpit?
- Use of Intrinsic Motivation
- Cognitive Stimulance of Brain
- Sterile Cockpit above 10k Feet is ignored, lets be honest
- Regulatory approval to use flight time above 10k for interactive learning, cognitive stimulants
- Fatigue is in part a close down of brain, caused by a boring workplace
Summary

- Alarming Shortfall of Pilots (and Engineers)
- 500k to 600k pilots are needed in next 20 years
- Future Generations learn gamificated
- Boring Workplaces will not find enough applicants
- Continuous Learning must be fun and intrinsically motivated
- Transition from Gamificated Learning for Flight Crew to Gamificated Workplace & Classroom Cockpit

We need to Work together for improved safety, quality and efficiency in global commercial aviation to recruit the Next Generation of Aviation Professionals