Eesti Lennuakadeemia

Estonian Aviation Academy

PETRI'S FRUIT SALAD







Petri Louhivuori Aviation Consultant

petri@avixtra.com

Airline industry



By the numbers, U.S. airlines have:



Flying is 98% safer, 40% more affordable, 95% quieter and 120% more fuel efficient.

Happy 35th Anniversary of Deregulation!



The main facts and issues



European airlines

source: Association of European Airlines

- 820 million passengers
- 120 million international tourists
- 452 billion Euros annual contribution to European GDP
- 7 million direct employment 11,7 mill total





European airlines

source: Association of European Airlines

Single European Sky needed

- Unnecessary cost per year 5 billion Euros
- 11 million annual minutes of flight delays
- 8 million tonnes of unnecessary CO2

Growth

- 1977 100 mill pax
- 1995 200 mill pax
- 2014 420 mill pax





Finland new airspace 13.11.2014

- No glider areas G
- No military control areas MIL CTA
- Protected areas linked in past to MIL areas, no more
- Parachute area (fixed) in Räyskälä no more
- AWY Corridor: corridor between FL65-FL95 no more. In many areas this means controlled airspace lowest level FL95
- Unofficial practice areas no more. Replaced with local airspace reservations "Local TRA"
- Kauhava military airport no more, local areas removed
- Many IFR charts revised



Finland new airspace 13.11.2014

The new airspace allows UAV operations

without line of sight



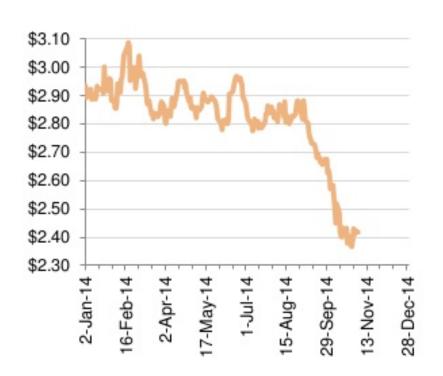




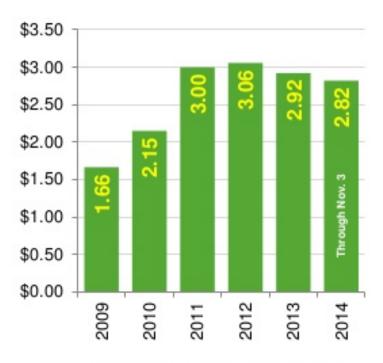
Jet fuel prices 2014

Source: A4A Industry Review and Outlook

Daily Spot Price per Gallon (U.S. Gulf)



Annual Spot Price per Gallon (U.S. Gulf)



Source: A4A and Energy Information Administration (U.S. Gulf Coast)



Aircraft deliveries 2014-2033

Source: Airbus

•	Freighters	803	2%
•	Africa	973	3%
•	CIS	1,218	4%
•	Middle East	2,148	7%
•	Latin America	2,263	7%
•	North America	5,533	18%
•	Europe	6,167	20%
•	Asia/Pacific	12,253	39
•	Total	31,358	100%

- 7304 days = 4,29 aircraft delivered every day
- Invested totally USD 73 billion into 745 new aircraft



Someone must need pilots!



New pilots & technicians 2014-2033

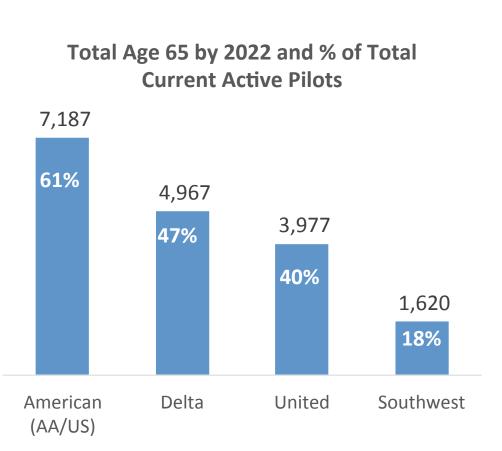
Source: Boeing

		Pilots	Technicians
•	Asia Pacific	216,000	224,000
•	Europe	94,000	102,000
•	North America	88,000	109,000
•	Middle East	55,000	62,000
•	Latin America	45,000	44,000
•	CIS	18,000	24,000
•	Africa	17,000	19,000

Boeing forecast 533,000 new pilots 584,000 technicians

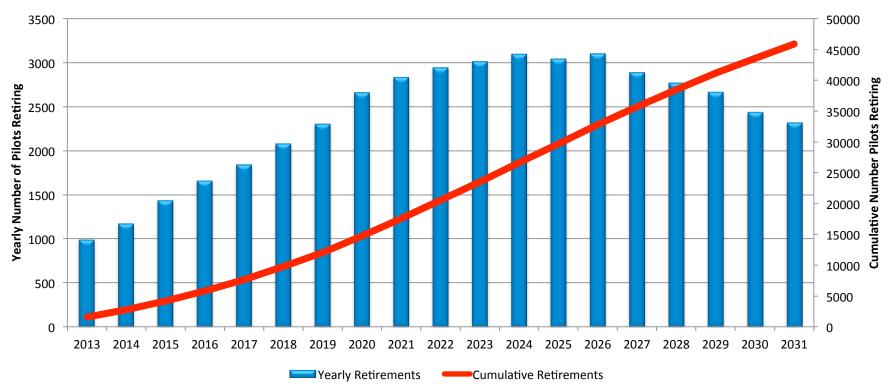


In US most "Age 65" related pilot retirements are with the 4 largest airlines



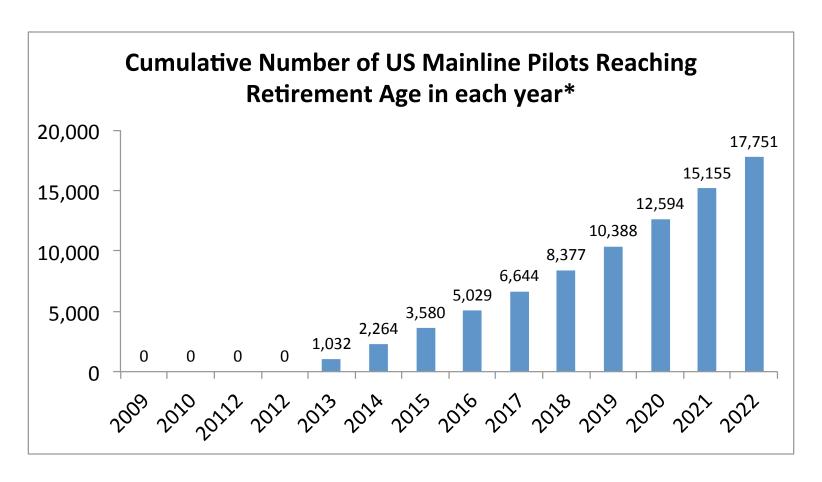
- Top 4 US airlines alone will retire a minimum of <u>18,000</u> pilots from age 65 alone by 2022.
- FAR rest rules adds need for <u>2,000</u>
 <u>-3,500</u> additional pilot's at these
 4 US carriers.
- Mainline staffing demand creates downline turbulence at regionals and others
- Only 18,000 total regional pilots today, a large portion of which will not leave
- Lower paying LCCs will be tapped as well

Forecast Retirements at Major US Airlines (Based Upon A4A Data)

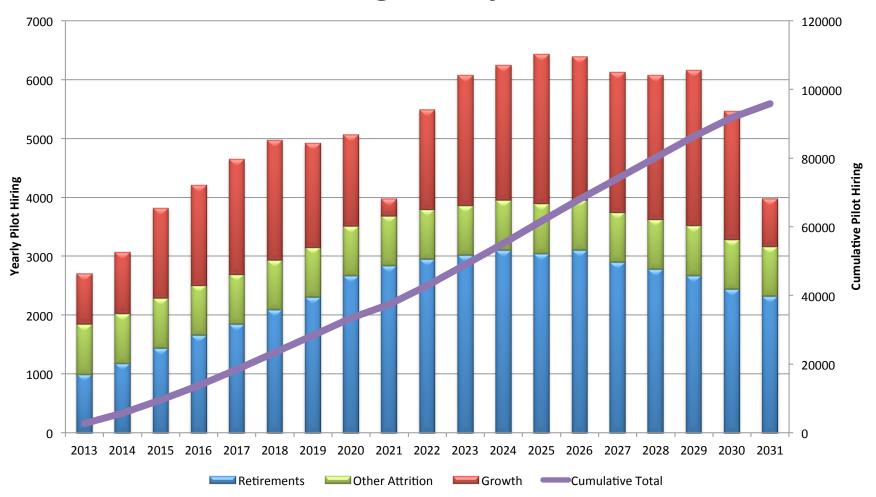




Pilots Face Mandatory Age 65 Retirement, Creating Need for Replacements



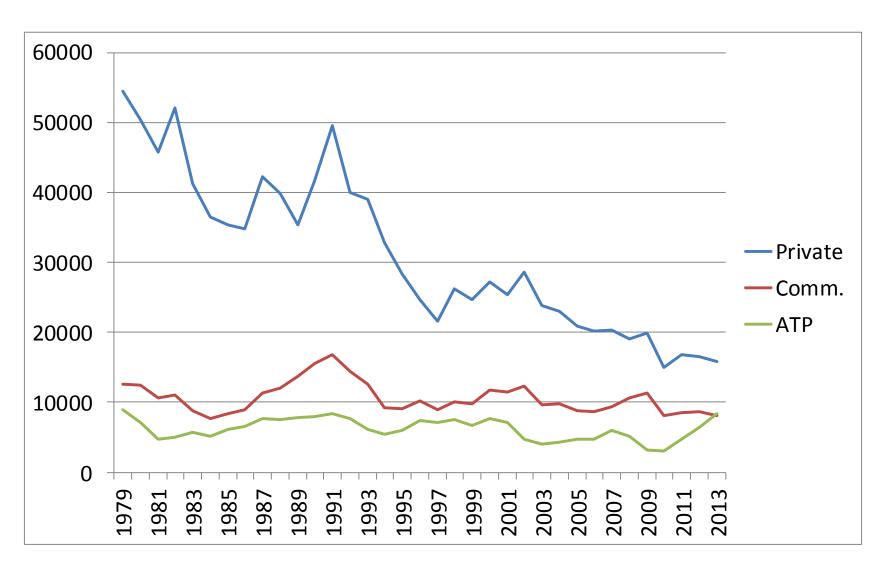
Forecast Hiring at Major US Airlines



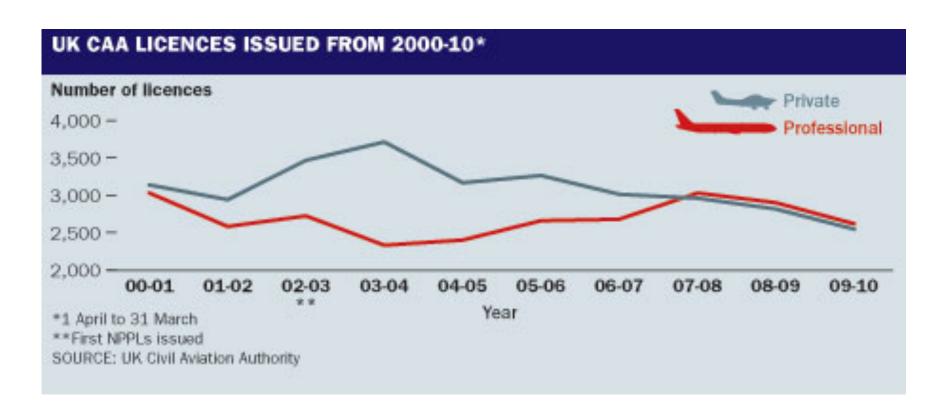




Pilot Certificates Issued (FAA and GAMA)



Licences issued 2000-2010 UK





Licenses issued 2003-2013 Finland

```
2003 2012 2013
```

```
• Rec 3610 3565 3652 +87 +2%
```

• PPL 2451 2230 1953 -277 -12%

• CPL 1033 1128 973 -155 -14%

• ATPL 702 1076 1090 +14 +1%



Is there a pilot market?



Did you think about helicopters?



HOW TO GET A JOB?

- Excellent young pilots graduating and thousands looking for a job
- Creating entry programs for new pilots
- Industry involvement in the education
- Discussion for also "Alternative Pathways"
- Funding for training



Application and CV

- Apply, apply, apply and then again
- Be professional
- Prepare a good CV
- Make it "stand out of the crowd"





Type course?

- B737 or A320 or what type course?
 - You need to be 2 trainees = crew
 - Price €16,000 €28,000 per person
 - Base training
 - Line training







Training should change



New look at all aspects of training

- New basic training approach
- New training methods needed
- New type training approach to next generation airliners
- New recurrency training approach to next generation airliners



Learning 🛇

THINK NEW











THANK YOU