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# CURRENT CHALLENGES FOR COMMERCIAL PILOTS IN INTERNATIONAL AVIATION- PRESENTATION TO THE INTERNATIONAL FOUNDATION FOR AVIATION AND DEVELOPMENT (IFFAAD)

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### **1. PILOT AND AVIATION WORKFORCE SHORTAGE**

The workforce shortage in aviation is being felt not only in the pilot numbers but all throughout. Airbus estimates the need to recruit 2 million to meet numbers by 2035. (500 000 airline pilots) according to aircraft orders etc.

The various reasons

- Training often requires basic Scientific background- STEM is not the trend especially for pilots and engineers.
- Accentuated by the Pandemic - many pilots were furloughed, left the industry, or took early retirement.
- An industry that has become less attractive especially for the younger generations - shift work, strict entry requirements, less incentives compared to other industries.

The pressures on the system - while the shortage persists.

- cancellation flights and grounded aircrafts in Canada, Asia, and other regions.
- lower experience workers in the system - from ground staff to air traffic controllers.
- the need to research AI to replace airport workers such as baggage handlers and check in assistants.

### **2. THE CLIMATE AGENDA IN THE AVIATION INDUSTRY**

- The Climate agenda on many political fronts pushing airlines to reduce their carbon footprint.
- ICAO's LTAG - Long term aspiration goal
- SAF - Sustainable aviation fuel will not be fully subsidized resulting in more expensive fares (Singapore airlines announced yesterday)
- Higher costs of new propulsion systems - (R&D and Lithium -ION batteries)
- More pressure on ATC - for better traffic flow, more traffic on the networks, better profiles for aircrafts, noise requirements/restrictions.
- More flights being cancelled to allow for trains to replace the services (EU) - new laws in France requiring local flights under one hour to be done by train.

### **3. UNSTABLE POLITICAL CLIMATE - WAR IN THE EASTERN EUROPE AND MIDDLE EAST.**

- Causing pressure on supply chains for manufacturers and airlines (fuel, spare parts, and raw materials), delays in aircraft deliveries in an example.
- Overflight restrictions and closed airspace. GPS issues (spoofing and jamming).
- Drop in passenger numbers due to restrictions and uncertainty in these regions/airlines
- the AFI Region (Somalia, Sudan, Libya, and Niger) closed airspaces - special procedures
- Congestion over some areas like the red sea - more close encounters/air prox incidents.

### **4. CYBER SECURITY CONCERNS AND GNSS INTERFERENCE**

- Reports of GPS spoofing - manufacturers still struggling to build resilient equipment to prevent such hacking/spoofing.
- Transitioning to System Wide Information Management (SWIM) like big data for aviation information systems. - the risks of cyber security attacks need to be managed
- Wireless Aircraft Interconnection (WAIC)

### **5. REMOTE PILOT AIRCRAFT SYSTEMS/DRONES AND UAS**

- Drones disrupting traffic at airports - causing closures - there have been reports of drone strikes.
- Drones or UAVs will soon be used for cargo delivery and other uses (2026 - RPAS ICAO)
- eMCO - single pilot Operation timeline - Airbus and Dassault are building aircrafts that can accommodate extended minimum crew operations (Single pilot operations in cruise). Cathay Pacific and Singapore Airlines have A350 freighters with this capability on order for 2027).

- Q&A