Mental health issues among pilots and the impact on the security. Scarecrow or threat?

AviAsian 2018 Conference

Singapore Aviation Academy
Theatrette, Level 4
1 Aviation Dr, Singapore 499867
5 September 2018
Safety in Aviation

- Mental illness as seen by WHO
- Mental Illness as seen by Aviation professionals
- we will brush on German wing accident
- recommendation from the accident by the European Aviation Safety Agency (EASA)
- future of pilot monitoring.
Mental health

Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

(WHO, 2018)
Prevalence of common mental disorders (% of population by WHO Region)

Source: Global Burden of Disease Study 2015
Cases of depressive disorder (millions), by WHO Region

- African Region: 66.21 million (21%)
- Eastern Mediterranean Region: 52.98 million (16%)
- European Region: 29.19 million (9%)
- Region of the Americas: 40.27 million (12%)
- South-East Asia Region: 85.67 million (27%)
- Western Pacific Region: 48.16 million (15%)

Source: WHO 2017
Global suicides, by age and country income level (thousands)

Source: WHO 2017
• A320-211 Barcelona – Düsseldorf
• 144 plus 6 crew died

• 74,573 aviation accidents and incidents in the database.
• 75
• 51
• 32

military Unmanned Aircraft System (UAS) pilots v. manned aircraft pilots

Source: Otto & Webber, 2013

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Germanwings Flight 9525

- A320-211 Barcelona – Düsseldorf

144 plus 6 crew died

AviAsia 5 Sept 2018 SING km@flightresearch.eu

350 PILOTS GROUNDED BY MENTAL PROBLEMS

- Number of pilots who said they had suffered from mental illness when applying for their medical certificate to fly
  2010... 75
  2011... 82
  2012... 77
  2013... 100
  2014... 113

- Number of these pilots who were suspended or denied medical certificate
  2010... 65
  2011... 52
  2012... 53
  2013... 78
  2014... 102

- Number of these pilots who later had their medical certificate to fly reinstated
  2010... 53
  2011... 51
European Commission

• International Air Transport Association (IATA)
• European Aviation Safety Agency (EASA)
• Civil Aviation Medical Association
• European Association for Aviation Psychology (EAAP)

• random psychological tests?
European Commission Safety Concerns

- International Air Transport Association (IATA)
- European Aviation Safety Agency (EASA)
- Civil Aviation Medical Association and
- European Association for Aviation Psychology (EAAP)

The regulatory proposal addresses the safety issues identified by the EASA-led Germanwings Task Force.

The Germanwings Task Force examined the findings of the BEA accident report and assessed the adequacy of the European air safety and security rules.

As a result of this work, 6 recommendations were addressed to the European Commission on 16 July 2015

Urgent action via:
- ‘Special rulemaking procedure: direct publication’
The multi-layer risk mitigation concept

- Operators’ recruitment process & Drug and Alcohol policy
- Class 1 Medical examination
- Contributing factors
- Crew support
- EU medical certificate repository
- Accident prevented
EASA published a proposal to the European Commission

• Ensuring that all pilots have access to a support programme;
• Mandating airlines to perform a psychological assessment of pilots before the start of employment;
• Introducing systematic Drug & Alcohol (D&A) testing of flight and cabin crew upon employment, after a serious incident or accident, with due cause (i.e. following reasonable suspicion), as well as
• Unannounced D&A testing after rehabilitation and return to work;
• As an additional safety barrier for airlines which are not already subject to a national programme for psychoactive substance testing: mandatory random alcohol screening of flight and cabin crew within the EU RAMP inspection programme

Stiftung Mayday - Mayday Foundation
http://www.stiftung-mayday.de/

• The Mayday Foundation maintains a worldwide network of carers, assisted by experienced and specially trained peers, both pilots and flight attendants as well as mental health professionals and professional psychologists.

• This worldwide network supports pilots and crew members after critical and stressful incidents and/or accidents.
Aviation license

Reasons to lose pilots licence.

1. cardiovascular disease
2. mental illness
Future Growth is in Data Analytics

- predictive analytics,
- effective risk factor profiling,
- collecting and utilizing, individualized patient data
When health monitoring really will mean people’s health?
• Ockham's razor solution
Developing new digital mental health services

• Innovation: Hide Inside Trojan Horses
• Every citadel has gates to keep the foreign element at bay.
EAAP33 Conference: Connecting People, Organisations and Technology in Aviation

• The next EAAP Conference will be held from 24-28 September 2018 at the Hotel Dubrovnik Palace in Croatia.

• [www.conference.eaap.net](http://www.conference.eaap.net)

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Thank you