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
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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)

- **Depressive disorders**: 4%
- **Anxiety disorders**: 3.6%

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%)

Total: 322 million

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

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

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

Source: Otto & Webber, 2013
Adjusted incidence rates of MH outcomes, by pilot type, U.S. Air Force,

Incidence rates per 1,000 person-years with 95% confidence intervals

Abbreviations: MH, mental health; RPA, remotely piloted aircraft

Source: Otto & Webber, 2013
350 PILOTS GROUNDED BY MENTAL PROBLEMS
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

James Reason "Swiss cheese" model
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.
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