Presentations ICAO Open Session

Tuesday 7 May, 10 am – 12 pm, Michigan 3

Evaluation on Support Programmes and Regulation 2018/1042
Mateja KOTNIK KERBEV, MD, EASA; Janis VEGERS, MD, EASA

After the GermanWings flight 9525 accident the EASA led Task Force made several recommendations proposing mitigating measures for the aero-medical examinations as well as for the operators in order to prevent similar incidents/accidents from happening in the future. Among these recommended measures the following were intended to mitigate as much as possible the risks of mental incapacitation of flight crew from the perspective of the operators:

- Psychological assessment upon employment
- Support programmes
- Random alcohol and drugs testing

The regulatory update also included a requirement for EASA to evaluate the implementation of these measures after a period of time. Evaluation Task EVT.0011 has assessed the implementation among the European Member States and operators of the aforementioned measures.

The presentation will provide the audience a summary of the results of the EVT.0011 of EASA

The Retirement Age of ATCOs: A Case Study on the Application of Science to Address a Societal Issue in Switzerland".
Dr. MOURATILLE Damien, Human Factors and Neuroergonomics researcher, French National School of Civil Aviation (ENAC)

In 2020, Skyguide (Switzerland's private air navigation service provider) and the social partners (HelvetiCA) were asked by the Swiss Federal Council to work together on raising the retirement age from the current 56/59 to at least 60. In this context, HelvetiCA and Skyguide agreed to conduct a scientific study (RAFA study) to assess the potential impact of this increase in the retirement age, in particular on the psychological well-being and cognitive performance of ATCOs. The first study aimed to identify factors related to working conditions, individual characteristics and coping strategies that may be affected by aging and may have an impact on the ability to perform operational tasks. The second study aimed to assess the impact of aging on the cognitive functions of ATCOs of different ages using a battery of psychometric tests. After a 13-month study period, recommendations were made to HelvetiCA/Skyguide. The social partners and Skyguide agreed to implement the recommendations in a safe, efficient and transparent manner as part of the Collective Labor Agreement signed in January 2024.

CONCEPT FOR A STATE SAFETY PROGRAM PILOT MEDICAL FITNESS RISK MANAGEMENT REFERENCE MODEL:
Dr. Anthony P. Tvaryanas, Aviation Safety Division Manager, Civil Aerospace Medical Institute (CAMI)

This presentation proposes a reference risk management model to inform updating of medical certification criteria to address identified and emerging safety issues. The rationale for the reference model is to ground State Safety Program (SSP) oversight of pilot medical fitness within a current barrier-based risk management framework (i.e., the bowtie model) used widely in aviation safety. **OVERVIEW:** The pilot medical fitness reference model addresses the hazard of performance of safety critical tasks (i.e., barriers in a parent [operations] bowtie model) when crewmembers present for duty with some health condition. The model focuses on the top event of pilot inadequate or inappropriate performance of a safety critical task, which links medical fitness to performance standards established through aircraft and operational design and certification processes. There are five broad, health-related threats (acute total performance impairment, temporary partial performance impairment, expected hypobaric/hypoxic environmental exposures, substance abuse relapse, and permanent partial performance impairment), with the potential to cause the top event, resulting in the consequence of an accident or flight diversion. Barriers in the bowtie appear on both sides of the top event. Preventive barriers on the left side interrupt the scenario so that the threats do not occur, and if they do, not result in the top event. Recovery barriers on the right side make sure that if the top event is reached, the scenario does not escalate into an actual impact (the consequences) and/or they mitigate the impact. **DISCUSSION**: The risk management reference model enables several key insights. First, framing the top event in terms of pilot performance establishes the needed linkage for performance-based fitness for duty standards. Second, the threats scope SSP pilot medical fitness oversight. Third, the barriers define the SSP's pilot medical fitness oversight system, which involve SSP medical and non-medical aviation safety functions. Lastly, the consequences and barriers scope the SSP's pilot medical fitness safety assurance activities.