



WORKING PAPER

ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 37: Other issues to be considered by the Technical Commission

AVIATION MEDICINE, PSYCHIATRIC AND PSYCHOLOGICAL ASPECTS

(Presented by Slovakia on behalf of the European Union and its Member States¹, the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

Mental health problems have an increasing incidence in the population. Given the potential risk to aviation safety from inadequate flight crew medical fitness, the international aviation community has already adopted standards and practices on this issue. Although aviation safety incidences resulting from this type of risk are low, the effects can be catastrophic. A number of recent serious air accidents, in several regions of the world, have identified a flight crew mental health condition as a causal factor for these accidents. This raises the opportunity to analyse the adequacy of the current ICAO framework which is internationally adopted.

Action: The Assembly is invited:

- a) request ICAO to establish a Task Force on Aviation Medicine to analyse, in the light of information derived from recent aviation accidents where a mental health condition has been identified as a causal factor to the accident, the risks associated with flight crew mental fitness, and the aeronautical medicine current evaluation system (including self-declaration and medical verification) taking into account the social and psychological context of pilots undergoing aeromedical evaluation and the need to avoid any negative side effects; and
- b) ask ICAO to adopt, where relevant adequate risk mitigation measures, including the development of new requirements, or the revision of the existing ones.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken subject to the resources available in the 2017-2019 Regular Programme Budget and/or from extra budgetary contributions.
<i>References:</i>	Annex 1 — Personnel Licensing Doc 8984, <i>Manual of Civil Aviation Medicine</i> A39-WP/196-TE/77, European initiatives following the Germanwings Flight 9525 accident Final Report from the BEA on the accident of the Flight 4U9525 ³

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

³ The BEA Final Report is available on the following webpage: <https://www.bea.aero/en/investigation-reports/notified-events/detail/event/descente-commandee-sous-pilote-automatique-collision-avec-le-relief>.

1. INTRODUCTION

1.1 The current safety levels in commercial aviation, and in particular those related to flight crew mental health are very high. However, there is a rising incidence of mental health problems in the population in general and depression is one of the most common psychiatric disorders, with a progressive incidence rate. More serious mental health problems, such as psychotic disorders, can be difficult to predict and their diagnosis can be also be difficult in the absence of clear psychotic symptoms. The mental health of flight crew, where their professional activity can affect flight safety, must therefore be a priority for the international aviation community.

1.2 Although aviation safety incidences resulting from this type of risk are low, the effects can be catastrophic. This can be seen in a number of recent serious air accidents, in several regions of the world, which have identified flight crew medical health problems as a causal factor for these accidents.

1.3 A number of actions have been already been undertaken at national or regional level to address such risks, including in the European Union⁴, but there is a need to complement those by addressing the issue at the global level.

2. DISCUSSION ON SELF-DECLARATION AND AEROMEDICAL CHECKS

2.1 The system of aviation medicine relies in part on the self-declaration by flight crew of their mental health. However, there are many factors that can lead to flight crew not providing such information. If flight crew report their mental illness, such as by recognising a dependence on/or the taking of antidepressants, the stringent mental and physical fitness standards may jeopardise the issuance or renewal of their flight crew licence, or could lead to licence limitations. For these reasons flight crew might fail to disclose a mental health medical problem or condition or might fail to follow the appropriate mental health treatment.

2.2 As failures are possible when using a self-declaration system, a key element in the safety system is that any possible pathology is identified by aero medical examiners during initial and continued medical checks, so that appropriate guidance can be provided. Special attention should be given to the process of initial selection of applicants. For the diagnosis and management of mental health problems, it is necessary to ensure that the aero medical examiners have access to adequate training and appropriate and objective techniques of screening for mental health, but keeping in mind that diagnosis of mental health, behavioural disorders or mental illness is, in several States, the responsibility of relevant medical specialists only (e.g. psychiatrists).

2.3 ICAO Annex 1 — *Personnel Licensing* accepts the possibility of maintaining certificates granted to flight crew members with depression, under certain conditions. The *Manual of Civil Aviation Medicine* (Doc 8984) accepts the granting of medical certification to a pilot who is on maintenance anti-depressant medication following successful treatment for depression, with the requirement, among others, for regular follow up with a mental health specialist.

⁴ For more information, please refer to A39-WP/196-TE/77, *European initiatives following the Germanwings Flight 9525 accident*.

3. **PROPOSAL FOR REVIEW OF THE GLOBAL FRAMEWORK**

3.1 As previously stated, although the incidence to aviation safety resulting from this type of risk is low, the effects can be catastrophic as can be seen following the recent serious air accidents where mental health issues were a causal factor. Following these accidents it appears timely to analyse the adequacy of the current ICAO framework which is internationally adopted.

3.2 However, this is a complex issue and which may be impacted by actions taken outside of the ICAO framework (e.g. actions taken in the framework of the World Health Organisation). Any new measures should be restricted to those that significantly improve air safety. To address this issue adequately it is necessary to take into account the potential economic impact, and to analyse the potential consequences of the measures taken, as they might, for instance encourage a decline in the self-declaration by flight crew of a mental illness issues.

3.3 The analysis and continuous update of the existing Standards in aviation medicine concerning flight crew mental health fitness would help to ensure and improve the current safety levels. Given the complexity of the issue, and the impact on flight crew, medical examiners, and operators, any actions taken as a result of reviewing the current framework will need to be considered by relevant experts and agreed by global consensus, so that confidence in the system is ensured.

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