



International Civil Aviation Organization

WORKING PAPER

A39-WP/196

TE/77

15/9/16

(Information paper)

English only

ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

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

EUROPEAN INITIATIVES FOLLOWING THE GERMANWINGS FLIGHT 9525 ACCIDENT

(Presented by Slovakia on behalf of the European Union (EU) and its Member States¹, the other Member States of the European Civil Aviation Conference (ECAC)², and by European Organisation for the Safety of Air Navigation (EUROCONTROL))

EXECUTIVE SUMMARY

The tragedy of Germanwings Flight 9525 reminded the international aviation community that the medical and mental conditions of flight crews, if not detected, can lead to a catastrophic outcome. The European Union has responded to this event by taking swift actions to mobilise the aviation community and work towards minimizing the risk that such a tragic event happens again and ensuring that the overall system is improved in a proactive manner.

This paper offers an overview of the actions implemented at European level to address the issues raised by that occurrence and further strengthen the European aviation safety system.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	N/A
<i>References:</i>	N/A

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, 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

1. INTRODUCTION

1.1 The crash of the Airbus A320-211 registered D-AIPX operated by Germanwings (flight 9525) on 24 March 2015 at Prads-Haute-Bléone (Alpes-de-Haute-Provence, France) was caused by an intentional act from the co-pilot, who was suffering from a severe mental disorder, to down the aircraft. In accordance with the provisions of Annex 13 to the Chicago Convention and of European Regulation (EU) n°996/2010 on the investigation and prevention of accidents and incidents in civil aviation, an investigation was immediately initiated by the Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile (BEA) of France.

1.2 Several actions were initiated in Europe in parallel:

- a) The European Aviation Safety Agency (EASA) issued on 27 March 2015 a Safety Information Bulletin recommending the operators to ensure that at least two authorised persons are in the cockpit at all times, or to implement other equivalent mitigating measures to address risks associated with flight crew members leaving the cockpit due to operational or physiological needs during non-critical phases of flight;
- b) A Task Force was set up in the European Union, led by EASA and composed of senior representatives from airlines, flight crew associations, medical advisors and public authorities;
- c) The German Federal Ministry of Transport and Digital Infrastructure (BMVI) appointed a Task Force on aviation safety; and
- d) The UK's Department for Transport (DfT) and Civil Aviation Authority (CAA) established a Mental Health Working Group; and
- e) The Spanish Agencia Estatal de Seguridad Aérea (AESA) established a Working Group on Aeronautical Psychology.

2. FROM THE BEA PRELIMINARY INVESTIGATION REPORT TO THE EUROPEAN ACTION PLAN

2.1 Following the publication of the BEA preliminary investigation report on 6 May 2015, a Task Force, led by EASA, was set up in the European Union to look into the findings of the BEA report and assess the adequacy of the European air safety and security rules. These areas included the cockpit door locking system and cockpit access and exit procedures, as well as the criteria and procedures applied to the medical monitoring of pilots. The BEA and the Task Force informed each other on the progress of their ongoing work, which allowed a cross fertilization of the proposals.

2.2 The Task Force released its final report on 17 July 2015, issuing six recommendations that can be summarised as follows:

- a) Maintaining the principle of '2-persons in the cockpit at all time'.
- b) Mandatory psychological evaluation of commercial pilots before entering service (with the airline taking the responsibility to verify that a satisfactory evaluation has

been carried out) and strengthening of the psychological part of the pilots' recurrent medical assessment.

- c) Introduction of drugs and alcohol testing for aircrew.
- d) Strengthening of the oversight of AME and creation of networks for peer support.
- e) Creation of a European aeromedical data repository to facilitate the sharing of information between Member States, while respecting patient confidentiality.
- f) Implementation and strengthening of pilot reporting and support systems within the airlines.

2.3 An Action Plan was published for implementing the Task Force recommendations on 20 October 2015. The actions included in the plan are expected to be completed by end of 2016.

3. OVERVIEW OF THE ACTIONS

3.1 The following actions have been undertaken or are envisaged by EASA:

- A survey to assess the benefits of the 2-persons-in-the-cockpit recommendation (issued by EASA via a Safety Information Bulletin (SIB) in March 2015) run from end January to mid-March 2016. Based on its outcomes, EASA has published on 21 July 2016 a revised SIB which clarifies how the risk of one flight crew member locked outside the cockpit may be addressed. Based on the risk assessment performed by the operator, and considering the screening of flight crew, employment stability, access to support programs, residual psychological and social risks, the 2-persons-in-the-cockpit procedure may be maintained by the operator as one possible mitigating measure. Whenever the operator's risk assessment foresees that a second person should always be present in the cockpit, the revised SIB specifies the role of the cabin crew entering the cockpit.
- The impact assessment (IA) on random Drugs and Alcohol (D&A) screening in the ramp inspection programme and as part of the operators' safety management system was presented at an Aircrew EASA Action Plan Conference in June 2016. Based on the feedback received, the proposed regulatory changes to be issued by end of 2016 will recommend:
 - Alcohol screening during ramp inspections; and
 - D&A testing as part of a pilot support programme and at least as a follow-up after rehabilitation and return to work.
- Recommendations to change the EU Rules and supporting guidance have been made by the Task Force. Making use of an accelerated rulemaking process for urgent safety issues, EASA is working on changes to the rules and plans to issue the relevant preparatory documents by the end of 2016 to address:
 - Pilot psychological evaluation before entering service.

- Psychological evaluation as part of, or complementary to, a specialist psychiatric examination or history of mental health from the applicant's physician.
 - Drugs and alcohol testing when employed by a CAT operator, after a serious incident, post-accident, with due cause, as part of a follow-up and after a positive test result.
 - The need to establish a robust AMEs' oversight programme and ensure that national authorities strengthen the psychological and communication aspects of AMEs training and practice.
 - The set-up of networks of AMEs to foster peer support.
 - The implementation and strengthening of pilot support programmes, including assistance provided by professionals and mental health professionals with relevant knowledge of the aviation environment, and trained peers.
- In addition, a European aeromedical data repository to facilitate the sharing of aeromedical information and tackle the issue of pilot non-declaration is being established. It should be operational by end of 2016.
- Finally, EASA is conducting preparatory work on how to balance medical confidentiality and public safety at EU level. This paper will contain suggestions, for consideration by the Commission, for the promotion of awareness-raising, the issue of guidance material and the promotion of self-regulation for the health care providers in case of a patient's health status can impact public safety.

3.2 National initiatives such as the German BMVI Task Force on aviation safety, the UK CAA Mental Health Working Group and the Spanish AESA Working Group on Aeronautical Psychology have suggested additional measures to address the relevant issues and contribute to prevent the recurrence of a tragedy such as the one of Germanwings Flight 9525.

3.3 In particular, consistently with the Action Plan, the German BMVI Task Force recommended the following additional measures:

- More and better information must be provided to the AMEs on suitable contact points in detecting mental disorders/evidence. The psychological and psychiatric expertise of AMEs and examining experts in the field of mental illnesses should always be available and accessible.
- Pilot support groups should be increased in scope and size and become a mandatory requirement.

3.4 Similarly, and consistent with the Action Plan, the UK CAA Mental Health Working Group recommended:

- Changes to the medical application form to specifically include questions on attempted suicide or self-harm and family history of mental illness or suicide.
- To improve AME capability and performance.

- To strengthen pilot support and reporting systems.

3.5 Finally, to support the implementation of the Action Plan, the Spanish AESA Working Group on Aeronautical Psychology is tasked to:

- propose a training programme for the aero-medical examiners (AME);
- prepare supporting material for the AME's psychological assessment of pilots;
- and define standard criteria for psychological assessment and psychometric tests to be performed by the aeromedical centres (AeMC).

4. THE BEA FINAL INVESTIGATION REPORT

4.1 The BEA involved in its investigation international medical experts, and performed a review of processes for aeromedical certification related to mental health issues in various countries worldwide. It also had a look at practices in other safety critical industries. This allowed the review of a wide range of issues and of the possible ways of improvement. The BEA published the final investigation report in March 2016, which included eleven safety recommendations addressed to the World Health Organisation (WHO), the International Air Transport Association (IATA), the European Commission, BMVI, Bundesärztekammer (BÄK) and EASA. The Action Plan and specifically the regulatory changes expected by end of 2016 will address, as appropriate, the BEA recommendations to EASA and thus:

- Mandate the routine analysis of in-flight incapacitation, in particular on psychological and psychiatric issues, and require data collection to validate the effectiveness of medical assessment criteria.
- Define conditions for the follow-up of pilots with a history of psychological trouble when they are declared fit to fly.
- Define modalities under which pilots may be declared fit to fly while taking antidepressant medication.
- Encourage operators to implement measures to mitigate the socio-economic risks related to pilot's loss of licence for medical reasons under medical supervision.
- Promote the implementation of peer support groups to provide a process for pilots, their families and peers to report and discuss personal and mental health issues, with the assurance that pilots will be supported, guided, and provided help.

4.2 The BEA also recommended that the European Commission, in coordination with EU Member States, defines clear rules to require health care providers to inform the appropriate authorities when a patient's health is very likely to impact public safety, while still protecting patients' private data from unnecessary disclosure. A similar safety recommendation was also issued to the WHO.

5. CONCLUSIONS

5.1 A quick response to the tragic event of Germanwings Flight 9525 has been put forward by the European Union and its Member States, with a structured and collaborative Action Plan, which involves European States, the industry, the associations representing pilots and cabin crew and all other interested parties through frequent consultation activities. The parallel and cross fertilized work of the European Task Force led by EASA, the BEA-led investigation, the German BMVI Task Force, the UK CAA Mental Health Working Group and the Spanish AESA Working Group on Aeronautical Psychology should facilitate the collective acceptance of the measures needed to minimise the risk of tragic events as the one of Germanwings Flight 9525 from happening again.

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