Task Force on Measures Following the Accident of Germanwings Flight 9525

Final Report

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1 Executive Summary

The European Aviation Safety Agency (EASA) was tasked by the European Commissioner Ms. Violeta Bulc to establish a Task Force to look into the accident of Germanwings flight 9525 including the findings of the French Civil Aviation Safety Investigation Authority (BEA) preliminary investigation report.

Chaired by Patrick Ky, EASA Executive Director, the Task Force consisted of 14 senior representatives from airlines, flight crew associations, medical advisors and authorities. Additional contributions were provided by invited experts and representative bodies. Three formal Task Force meetings took place from May to July 2015. Additional sub-groups undertook reviews of specific issues.

Early in its evaluation, the Task Force noted that the greatest scope for change was not related to cockpit doors but to wider issues including medical aspects such as aeromedical checks. The Task Force subsequently focussed on the initial and continuous medical assessments of pilots including psychological evaluation, the aeromedical examiner framework and aeromedical data systems.

Following the first discussions, the Task Force also addressed the pilot work environment and drugs and alcohol testing. The Task Force recognised that the abuse of drugs and alcohol is one of the disorders potentially affecting the mental health of pilots for which screening tests are readily available.

As a result of its work, the Task Force delivered a set of 6 evidence based recommendations to the European Commission on 16 July 2015. Particular effort was made to balance medical secrecy and safety, and apply proportionality between safety objectives and technical solutions. The recommendations are listed below:

- Recommendation 1: The Task Force recommends that the 2-persons-in-the-cockpit recommendation is maintained. Its benefits should be evaluated after one year. Operators should introduce appropriate supplemental measures including training for crew to ensure any associated risks are mitigated.

- Recommendation 2: The Task Force recommends that all airline pilots should undergo psychological evaluation as part of training or before entering service. The airline shall verify that a satisfactory evaluation has been carried out. The psychological part of the initial and recurrent aeromedical assessment and the related training for aero-medical examiners should be strengthened. EASA will prepare guidance material for this purpose.

- Recommendation 3: The Task Force recommends to mandate drugs and alcohol testing as part of a random programme of testing by the operator and at least in the following cases: initial Class 1 medical assessment or when employed by an airline, post-incident/accident, with due cause, and as part of follow-up after a positive test result.

- Recommendation 4: The Task Force recommends the establishment of robust oversight programme over the performance of aero-medical examiners including the practical application of their knowledge. In addition, national authorities should strengthen the psychological and communication aspects of aero-medical examiners training and practice. Networks of aero-medical examiners should be created to foster peer support.

- Recommendation 5: The Task Force recommends that national regulations ensure that an appropriate balance is found between patient confidentiality and the protection of public safety.

  The Task Force recommends the creation of a European aeromedical data repository as a first step to facilitate the sharing of aeromedical information and tackle the issue of pilot non-declaration. EASA will lead the project to deliver the necessary software tool.

- Recommendation 6: The Task Force recommends the implementation of pilot support and reporting systems, linked to the employer Safety Management System within the framework of a non-punitive work environment and without compromising Just Culture principles. Requirements should be adapted to different organisation sizes and maturity levels, and provide provisions that take into account the range of work arrangements and contract types.

2 Introduction

The European Commission tasked the European Aviation Safety Agency (EASA) to establish a Task Force to look into the 24 March 2015 accident of Germanwings flight 9525, including the findings in the French Civil Aviation Safety Investigation Authority, Bureau d'Enquetes et d'Analyses (BEA), preliminary investigation report[1].

The BEA preliminary report concluded that the accident was caused by an intentional act from the co-pilot to down the aircraft. The report also highlighted areas which should be looked at in more depth in order to help prevent the recurrence of such events. The Task Force therefore conducted a review of these issues including cockpit door locking systems, cockpit access and exit procedures, the aeromedical framework including medical checks, and the flight crew working environment.

The Task Force brought together 14 senior representatives[2] from airlines, flight crew associations, medical advisors and authorities. The chairmanship was assured by Patrick Ky, EASA Executive Director. Additional presentations and contributions were delivered by invited experts and representative bodies.

In addition to three formal Task Force meetings, organised at the EASA Brussels Office from May to July 2015, sub-groups were established and experts were tasked to carry out an in-depth analysis on issues such as the cockpit door procedures, initial and continuous assessment of pilots, psychological evaluation, drugs and alcohol testing and aeromedical data systems. The conclusions and considerations of the sub-groups and experts were presented to the plenary meetings for discussion and eventual decision.

The Task Force worked on a set of recommendations taking into account expert evidence, balancing medical secrecy and safety, and applying proportionality between safety objectives and technical solutions.

The work of the Task Force was conducted in parallel to the BEA-led independent technical investigation, which will produce safety recommendations to be considered by the competent authorities. Furthermore, the Task Force took account of the work carried out by the German task force on cockpit safety, coordinated by the German Aviation Association (BDL), which was established in the wake of the Germanwings accident. Representatives from the US Federal Aviation Administration (FAA) also participated in the Task Force proceedings and contributed input on FAA work on pilot fitness.

The following report represents the work of the Task Force and the agreed recommendations for action presented to the European Commission today, 16 July 2015.

[1] BEA Preliminary Report - Accident on 24 March 2015 at Prads-Haute-Bléone (Alpes-de-Haute-Provence, France) to the Airbus A320-211 registered D-AIPX operated by Germanwings.

[2] See Appendix A for a full list of Task Force members.

Germanwings flight 9525 was a scheduled international passenger flight from Barcelona–El Prat airport in Spain to Düsseldorf Airport in Germany, which crashed on 24 March 2015 killing all 144 passengers and six crew members on board. The Airbus A320-200 registered D-AIPX crashed in the French Alps, some 100 kilometres northwest of Nice, after a constant descent that began shortly after the aircraft had reached its cruise altitude. In accordance with the provisions of European regulation (EU) n°996/2010 on the investigation and prevention of accidents and incidents in civil aviation, the Safety Investigation is being led by the BEA.

3 Cockpit Doors – Safety and Security

Following the 11 September 2001 attacks, several measures were introduced to mitigate the risk of unwanted persons entering the cockpit. Secure cockpit door locking was rapidly mandated at international and European level, and rules were subsequently fine-tuned to address the risks in the areas of rapid aircraft depressurisation, double pilot incapacitation, post-crash cockpit access, and door system failure including manual lock use. The vast majority of passenger transport aircraft are compliant to the current set of regulations.

The focus for all the measures that were introduced was put on the threat from outside of the cockpit. A potential threat from inside the cockpit was not fully considered in either the initial phase or the period that followed, when the regulations were fine-tuned.

Taking into account the BEA preliminary investigation report finding that the co-pilot did not open the cockpit door during the descent despite requests for access made via the keypad, the Task Force placed emphasis on the analysis of the 2-persons-in-the-cockpit recommendation and cockpit door manual locks.

3.1 2-persons-in-the cockpit recommendation

The 2-persons-in-the-cockpit-procedure was introduced by airlines in the immediate aftermath of the 11 September 2001 attacks to ensure the monitoring of the area in front of the cockpit without the pilot leaving the seat prior to the installation of a camera system to perform this task. A number of airlines on both sides of the Atlantic continued to apply the two persons in the cockpit procedure at all times, even after the installation of camera surveillance systems.

Following initial information available after the Germanwings accident, EASA issued on 27 March 2015 a Safety Information Bulletin (SIB)[3] temporarily recommending that airlines re-assess the safety and security risks associated with flight crew members leaving the flight crew compartment during non-critical phases of flight. Based on this assessment, airlines should ensure that at least two crew, including at least one qualified pilot, are in the cockpit at all times of the flight or implement other equivalent mitigating measures. The EASA recommendation has been widely implemented.

The Task Force has analysed possible additional risks stemming from the 2-persons-in-the-cockpit recommendation, including but not limited to the possibility that it allows access of additional persons to the flight deck.

The Task Force notes that the procedure has been extensively used by airlines in many countries prior to the EASA recommendation and no issues have been reported because of it. EASA was not aware of any reported incidents due to a member of cabin crew being on the flight deck. EASA also reported on the FAA's information that it was unaware of any known related security or safety incidents.

A number of airlines have implemented supplemental measures to complement the requirement. Crew may be subject to additional security screening, and temporary staff excluded from the task. In addition, training may be provided so that crew are fully aware of the requirements of the role, which is limited to facilitating the opening and closing of the cockpit door.

The Task Force takes note of the positive reaction from the general public to the implementation of the 2-persons-in-the-cockpit-recommendation.

Taking into account the possible safety benefits, the public's confidence in and acceptance of the measure and the current widespread application, the Task Force determined that the 2-persons-in-the-cockpit recommendation should be maintained.

Nevertheless, the application of the recommendation should be monitored and evaluated one year after publication of this report. Operators should ensure that appropriate measures are used to mitigate any new risk. The measures could include additional training for crew asked to enter the cockpit and tasking only selected crew with this role.

Recommendation 1: The Task Force recommends that the 2-persons-in-the-cockpit recommendation is maintained. Its benefits should be evaluated after one year. Operators should introduce appropriate supplemental measures including training for crew to ensure any associated risks are mitigated.

[3] SIB n°2015-04

3.2 Cockpit door manual lock

The Task Force reviewed the mechanisms used to lock the cockpit door and the risks associated to these. In the case of failure of the cockpit door electronic locks, an additional manual lock is often installed to mitigate the security risk and ensure dispatch reliability. Although the manual lock is not compliant with the requirements related to rapid decompression and crash landing with cockpit door jammed and pilots incapacitated (CS 25.365 and 25.772), it is accepted based on the low probability of these events. In the past, the risk of illegitimate use of the manual lock from inside the cockpit was not fully assessed.

The Task Force reviewed the use of the cockpit manual door lock. Available data shows that the use of the manual cockpit door lock is very rare. Based on data provided by 10 European airlines and subsequent analysis carried out by EASA, the rate is estimated at only 1 in every 250,000 flights.

The Task Force has not identified presently suitable alternatives to the manual lock to guarantee security in case of the failure of the automatic system. It is also noted that there are specific cases where the manual lock has proven useful, notably in the US in 2012 when a pilot developed sudden psychiatric illness and was prevented from re-entering the cockpit through the use of the manual lock.

Taking into account that possible risks associated with illegitimate use of the manual lock from inside the cockpit may be mitigated through the 2-persons-in-the-cockpit recommendation, the Task Force does not see it necessary to recommend further immediate action on the cockpit door manual or electrical locking system at present.

4 Aeromedical Checks

The pilot of the Germanwings accident underwent an initial Class 1 medical assessment and psychological evaluation by a pilot training organisation prior to being selected for flight training. He developed mental ill-health which manifested itself during ab-initio training.

The overall number of aviation accidents with a medical cause or contribution is small but they have the propensity to result in rare, catastrophic accidents. Not all medical events are predictable.

4.1 The initial and continuous assessment of pilots

The Task Force analysed the current assessment system. The current process foresees that candidates for flight training undergo medical screening and airline and pilot training organisation selection procedures:

Medical screening: An initial Class 1 medical assessment includes the taking of a medical history, examination and several tests, among which a general mental health assessment. If the medical history or discussion raises concerns about psychiatric or psychological ill-health, the candidate is referred to a psychiatrist or a clinical psychologist for review prior to their fit status being decided.

The system puts emphasis on the ability of the aero-medical examiners to detect disorders in all fields of medicine, including psychiatric and psychological disorders. Sometimes these disorders are difficult to detect, for example because no early symptoms exist, or when an individual is not open about their symptoms, thoughts or behaviour.

Airline and pilot training organisation selection procedures: Psychological evaluation of self-sponsored candidates and airline cadets is undertaken through pilot training organisations, under the direction of a psychologist. Currently, some entrants into commercial flying will never undertake an initial psychological evaluation due to their training path.

If undertaken, the psychological evaluation includes an assessment of cognitive capacity to be an airline pilot, as well as performance aspects, checking abilities such as multi-tasking, psycho-motor coordination, attention, concentration, memory, reaction times and stress tolerance. Pilot training organisations tend to use their own customised tests.

The psychological evaluation at the selection stage may include an evaluation of the personality of the candidates. The aim of these tests is to identify applicants who are balanced and do not show any signs of behavioural instability, and to exclude applicants whose personality factors elevate the risk of later behavioural problems.

After having been accepted for Air Transport Pilot License training, currently candidates who experience difficulties in terms of performance or behavior during training (e.g. from fatigue, intense workload, depression, substance misuse) may be reported by flight instructors or other students to the pilot training organisation management. For some pilot training organisations, those difficulties trigger a meeting between the student and the chief pilot or the Head of Training of the pilot training organisation and in the case of depression, anorexia, addiction, etc. with a clinical psychologist and/or psychiatrist.

Psychological evaluation of applicants for airline pilot training (self-sponsored and state/airline sponsored) is essential but evidence to date does not support the idea that recurrent evaluation brings added value.

Aero-medical examiner advice between medicals: A pilot who is determined to hide a medical condition, which is not detectable on examination, may currently seek medical advice and treatment in another country and is able to purchase medication abroad or over the internet.

The role of aero-medical examiners in giving aeromedical advice to pilots between medicals is essential and is not always sufficiently emphasised in the rules or well understood by pilots and there is very little EASA guidance material on aeromedical matters.

Based on these observations, the Task Force recommends to emphasise, in the rules and in aero-medical examiner training, the role of aero-medical examiners in giving aeromedical advice to pilots between medicals and promote this to pilots. Issues potentially affecting flight safety are reported by aero-medical examiners to the licensing authority.

Continuous aeromedical assessment: Regarding the continuous assessment, aero-medical examiners learn most of the information through pilots giving information about their past medical history, current and past medication, and answering questions directed by the doctor depending on their psycho-social situation and

symptoms. The majority of medical conditions present in between medical examinations are not detected by aero-medical examiners if not reported by the pilot. Nevertheless, the task force recommends to strengthen the psychological part of the recurrent assessment and the related training for aero-medical examiners. EASA will prepare guidance material for this purpose.

Based on these facts and to mitigate in particular the currently existing possibility to become an airline pilot without having undergone psychological evaluation, the Task Force recommends that all airline pilots should undergo a psychological evaluation as part of training or before entering airline service. The airline shall verify that pilots employed have undergone the psychological evaluation by a psychological expert successfully or they shall arrange the evaluation themselves using such expertise. The retroactive application of this requirement should be further analysed. The Safety Management Systems of airlines and pilot training organisations shall include provisions to ensure that the psychological evaluation has been carried out.

The following additional recommendations might be considered to reinforce the system:

- Psychological evaluation shall be done with aviation psychological expertise. This expertise should be verified by the Member State. A formal recognition of aviation psychologist could be explored separately with the relevant professional bodies.
- EASA should develop guidance material to describe what is expected to be undertaken by the Aeromedical Examiner at the initial and revalidation medicals, including guidance on how to conduct a general mental health assessment. Enhanced psychiatric or psychological assessment does not need to be introduced into the initial Class 1 medical assessment, unless clinically indicated. The current rules allow for additional assessment if indicated. Periodic psychiatric review should be considered after a period of mental illness.
- EASA will develop procedures for pilot training organisations to deal with students who experience some behavioural difficulties during the initial training.

Recommendation 2: The Task Force recommends that all airline pilots should undergo psychological evaluation as part of training or before entering service. The airline shall verify that a satisfactory evaluation has been carried out. The psychological part of the initial and recurrent aeromedical assessment and the related training for aero-medical examiners should be strengthened. EASA will prepare guidance material for this purpose.

4.2 Drugs and alcohol testing

The use/abuse of drugs and alcohol[4] is one of the few disorders that has the potential to affect the mental health of pilots, for which screening by means of biochemical tests is available.

From 1980 to 2011, there were 31 medical-cause commercial air transport accidents of which 20 were of psychiatric cause. The highest proportion of the psychiatric causes (60%) was due to drugs or alcohol[5].

Drugs and alcohol can lead to errors, slow or incorrect judgement and decisions, poor cognitive function, slow reaction times, mood changes, poor coordination, tracking or concentration and risk-taking behaviour or inappropriate action. All these have clear implications for flight safety. In contrast to most other medical causes of flight crew impairment or incapacitation, the impairment of a pilot due to drugs and alcohol is often difficult to recognise and is likely to affect the whole of a flight duty period[6]. Side effects from certain types of medication can also lead to a flight safety risk.

Early recognition of drugs and alcohol problems is more likely in a company that has an active, clear, accessible and open reporting system, which promotes fair management of pilots with medical issues and has a good safety culture. Positive support and active rehabilitation is essential to encourage declaration of drugs and alcohol problems. The demonstration of a robust company stance differentiating between strong support for pilots who self-declare and intolerance of pilots who don't declare and put their and others' lives at risk is of paramount importance.

Drugs and alcohol testing is mandated by legislation in a number of States and also undertaken by a number of airlines in States where there is no statutory requirement to test. It is currently being considered by a number of aviation authorities and airlines. The Task Force reviewed evidence from safety regulators and airlines undertaking drugs and alcohol testing, all employer led rather than mandated by legislation. The Task Force also took account of legislation and practices related to drugs and alcohol testing in the road and rail areas.

Different scenarios were considered for the drugs and alcohol testing: pre-employment, with due cause (e.g. post incident/accident, whistleblowing report, on suspicion), periodic, random and follow-up (after tests).

A number of elements to be considered for a drugs and alcohol testing programme were identified and analysed, including policy, training of staff, testing principles and implementation, quality assurance and issues for employers.

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[4] Drugs' is used in this report to refer to illicit drugs. Medication is used to refer to substances either prescribed or bought over the counter, or internet, to treat symptoms or a medical condition.

[5] Medical Cause Fatal Commercial Air Transport Accidents: Analysis of UK CAA Worldwide Accident Database 1980-2011 (Abstract). SJ Mitchell, M Lillywhite Aviat Space Env Med: 2013; 84(4)p346

[6] 'Impairment' is used to signify reduced functioning. 'Incapacitation' is used to signify complete inability to function.

Based on the analysis carried out, the Task Force recommends to mandate drugs and alcohol testing as part of a random programme of testing by the operator and at least in the following cases: in conjunction with the initial Class 1 medical assessment or when employed by an airline, post incident, post-accident, with due cause, as part of follow-up and after a positive test result. All operators' Safety Management System should include a drugs and alcohol policy and organisations should be required to report the results of testing to the competent authority.

The following considerations and guidelines might be taken into account for the implementation of the recommendations:

- The test shall comply with the best practice including "B samples" to avoid false positives.
- It may be appropriate to obtain a complete EU-wide picture of national drugs and alcohol legislation that affects pilots by surveying the competent authorities.
- International experience should be taken into account.
- Require the competent authority to collate the results of testing and to amend the percentage of pilots required to be tested the subsequent year according to the proportion of positive results obtained in the previous period.
- Require the competent authority to approve accredited organisations to undertake drugs and alcohol testing for licensing purposes.
- Legislation should avoid mandating a list of drugs to be tested to allow for local variation in usage and the introduction of new drugs. Guidance will need to be updated regularly.
- Any publicity campaign to introduce the concept of drugs and alcohol testing to the aviation community should include safety information about potential side effects of medication, both prescribed and purchased directly from a pharmacy or online.
- It might be considered to extend the target group for the random testing programme to other safety critical professionals.

Recommendation 3: The Task Force recommends to mandate drugs and alcohol testing as part of a random programme of testing by the operator and at least in the following cases: initial Class 1 medical assessment or when employed by an airline, post-incident/accident, with due cause, and as part of follow-up after a positive test result.

4.3 The aero-medical examiner framework

The Task Force reviewed the current European aeromedical system, including the regulatory framework and the roles and relationships of the different actors including the authorities, aeromedical centres, aero-medical examiners and pilots.

4.3.1 Aviation medicine capability

The current rules require that, in the case of Class 1 medical certificate applicants and holders, difficult, contentious and borderline decisions shall be referred to the licensing authority. In these cases, the authority medical assessor needs the right level of experience to take a leading role and decide on the fitness of the applicant. However, it is difficult for aero-medical examiners without a profound clinical background to deal with pilots having health problems but not having reached a critical threshold. This problem is further aggravated by the fact that many aero-medical examiners work in relative isolation, alone or as part of medical practises without the support of colleagues facing the same issues.

The authorities play an important role in ensuring a cooperative relationship with aero-medical examiners, including in sharing detailed information on the latest medical developments and rule changes.

The Task Force discussed the creation of networks of aero-medical examiners as a way to address these issues. These networks could be coordinated through the national authorities and grouped according to geographic or work environment criteria. They would provide peer support and ensure that aero-medical examiners are not isolated in their daily activities. However, aero-medical examiners will remain responsible for their decisions. Training for aero-medical examiners should be complemented by additional training in psychological disorders and patient communication skills.

A complementary way to mitigate aero-medical examiners isolation would be for aeromedical centres to play the role of network coordinators.

4.3.2 Aviation medicine process oversight

The Task Force analysed the oversight of the aviation medicine system and highlighted the importance of evaluating the quality of pilot medical assessments. The Task Force identified the main following issues:

- There are presently no requirements for EASA to approve or audit aero-medical examiner training providers to ensure the level and consistency of training provided.
- The rules overseeing the auditing of aero-medical examiners and visits by medical standardisation teams are compliance based and concentrate on written processes and facilities.

Moving to a performance based audit and oversight system would bring strong benefits by showing the tangible issues faced by aero-medical examiners in their decision making, when making judgments on pilot fitness. This assessment of medical examiner performance should demonstrate how their knowledge is applied in practice. To support this change, authority medical assessors should receive training in performance-based audit techniques and the regulations should support this.

The main recommendation from the Task Force in this domain is to switch the focus of aeromedical audits to the assessment of aero-medical examiners performance including the application of their knowledge in practice. The Task Force also recommends that:

- EASA approves and audits the training of aero-medical examiners.
- When introducing a performance based auditing system of aero-medical examiners, authorities are able to undertake some routine elements of the audit by videoconference.
- Changes to requirements take into account the different situations across Europe, as some States have only a very small number of aero-medical examiners, all trained by a single organisation.
- A high level of aviation medical competence should be ensured within the Authorities and the aeromedical centres.
- The merits of a periodic assessment in an aeromedical centre should be further explored.

Recommendation 4: The Task Force recommends the establishment of robust oversight programme over the performance of aero-medical examiners including the practical application of their knowledge. In addition, national authorities should strengthen the psychological and communication aspects of aero-medical examiners training and practice. Networks of aero-medical examiners should be created to foster peer support.

4.4 Aeromedical data

The introduction of pan European medical certification has given pilots freedom to apply to an aero-medical examiner certificated by any EASA State. A system to share aeromedical information in an efficient manner is important to minimise the risk of non-declaration introduced by this freedom.

The Task Force identified the following main issues:

- The implementation of data protection rules should balance the need to protect patient confidentiality with the need to protect public safety. Unless national rules are changed, this will continue to be a risk.
- Pan European medical certification has opened the potential for medical tourism as the States do not share a common medical data system. The authorities and aero-medical examiners do not have access to the past medical history of the individual, nor information on whether a pilot has been denied a medical certificate if previously assessed in another State, nor the reason for denial.
- Pilots are increasingly mobile. Some choose to undertake their medical examinations in States where the costs are lower and there may also be a tendency to go to aero-medical examiners who have a reputation for having a less rigorous approach to examinations. Some may choose to shop around with an intention not to declare one or more aspects of their medical history. A history of psychiatric disease like depression or personality disorders as well as issues including drugs and alcohol misuse is particularly vulnerable to this type of non-declaration as there may be no clinical signs that can be elicited on examination. Many operators are still insisting on pilots changing their licences to the State in which the operator is based when they start working for them.

- Also, in the case of a revalidation or renewal application in a different State, procedures have had to be created by the authorities to ensure the medical information report is sent to the authorities of the State responsible for issuing the licence. The procedures are not legislated, are difficult to apply in some States and very difficult to control and oversee. The volume of manual data handling and data loading is large.

The Task Force reviewed the feasibility of a European aeromedical data repository containing basic medico-administrative information and of a comprehensive aeromedical records management system to supersede national systems. The practicality of implementing a full pan-European aeromedical records management system at this time was questioned. Significant issues include cost, lengthy implementation time, data security and difficult buy-in from stakeholders.

A European repository containing medico-administrative information, limited to Class 1 medicals, would deliver a significant benefit and be more readily accepted by aero-medical examiners and other stakeholders. It would include basic personal information (name, date of birth), State of License Issue (or to which the pilot has applied for a medical certificate if yet to achieve a licence) and details of the aero-medical examiner who issued the last medical certificate and current fit status. While acknowledging the limitations of the repository, it could as an act as interim measure to a future full aeromedical records system.

The Task Force recommends the creation of a European aeromedical data repository as a first step to facilitate the sharing of aeromedical information and tackle the issue of pilot non-declaration. EASA will lead the project to deliver the necessary software tool, including the analysis of costs and data protection related issues.

Recommendation 5: The Task Force recommends that national regulations ensure that an appropriate balance is found between patient confidentiality and the protection of public safety.

The Task Force recommends the creation of a European aeromedical data repository as a first step to facilitate the sharing of aeromedical information and tackle the issue of pilot non-declaration. EASA will lead the project to deliver the necessary software tool.

5 Social Responsibility and Pilot Work Environment

Pilots, like other professionals, are susceptible to the effects of stress or negative personal situations and may sometimes be hesitant to seek help and support for a number of reasons. The obvious stressors include the work environment, psychosocial hazards such as fatigue and workplace or private problems, time pressure and stress sources all adults must deal with. This combination of factors may lead to temporary mental health issues or, if not recognised and treated, possible permanent issues.

The aviation sector is heavily driven by operational safety because of the regulatory and enforcement framework through European and national authorities. Obligations in relation to occupational health and safety, however, may not always receive sufficient emphasis from all stakeholders.

The Task Force considered ways in which the employer can provide pilot support systems to facilitate the detection and early treatment of mental health issues, and the possible challenges that may be associated with such an approach.

5.1 Pilot support systems

Pilots work as part of a crew where they interact with other pilots as part of their daily duties. Most of this time is spent in the cockpit of an aircraft, by definition a closed space where close human interaction is present. The fact that the work is very proceduralised, with checklists, call outs and structured decision making, can allow for the recognition of issues. Pilot relationships with peers are easily formed and this often permits an understanding and insight that others in the organisation do not have access to.

A number of organisations have been able to make use of this by setting up peer support groups, usually with the involvement of crew representation bodies or professional pilot associations.

Peer support structures provide individuals a place to turn to in order to share their issues with trusted peers in as close to a non-threatening environment as possible, with the knowledge that fellow pilots are likely to help rather than immediately seek to penalise a colleague. The structures also enable organisations to more easily approach individuals that display behavioural or other issues via their peers. As a last resort, reporting systems may be used in case of identified unresolved perceived safety issues. A well organised support system may prevent mental or personal issues from becoming a greater liability to both the individual's career and the organisation's safety performance.

Peer support and reporting systems, however, present significant implementation challenges. For these programmes to work, mutual trust between the flight crews and hierarchical structures of the operator is necessary. The crew needs to be assured that mental health issues will not be stigmatised, concerns raised will be handled confidentially and appropriately, and that the pilot will be well supported with the primary aim to allow him/her to return to the flight deck. Organisations must foster the development of these systems by integrating them into the organisation's daily way of working.

5.2 Organisation requirements for pilot support

The implementation of pilot support systems may benefit from being the result of a joint initiative from both the operator and a pilot association, contributing to buy-in from pilots. The systems need to be clear and transparent and be endorsed at senior management levels. It needs to provide for a very high degree of confidentiality and data protection, which does not exclude that action is taken to address safety concerns. The Task Force notes that pilot support systems and the related necessary structures, policies and procedures are implemented within the organisation Safety Management System to ensure a proactive and integrated approach.

This approach goes beyond the classical compliance with prescriptive regulations to a systematic approach to managing safety, where risks are managed to an acceptable level.

A number of related aspects need to be taken into account:

- The support of the regulators must be secured. Oversight authorities should understand and support the organisation's approach to pilot support, including showing restraint before prematurely revoking licences from individuals that openly seek assistance.
- The connection between different reporting systems should be ensured. The reporting loop should be closed to ensure that the actors in the system, including the oversight authorities, get access to information needed to make an informed decision, notably in critical cases.
- Requirements should be adapted to different organisation sizes and maturity levels, and should provide provisions that take into account possible influence of different pilot contract types.

Taking into account the pilot working environment and the recognised benefits of pilot peer support programmes or similar channels, the Task Force recommends their implementation, linked to the employer Safety Management System.

In any future environment where mental ill-health awareness is formalised, the bond of mutual trust and cooperation should not be compromised through an atmosphere of fear. The successful implementation of pilot support systems relies heavily on a supportive working environment. The risk of protection and confidentiality being perceived as inadequate is for pilots to deal with issues underground instead of using the peer support system.

Recommendation 6: The Task Force recommends the implementation of pilot support and reporting systems, linked to the employer Safety Management System within the framework of a non-punitive work environment and without compromising Just Culture principles. Requirements should be adapted to different organisation sizes and maturity levels, and provide provisions that take into account the range of work arrangements and contract types.

6 Way Forward

With the publication of these six recommendations, the Task Force has concluded its work.

As part of the next steps, the Task Force proposes that EASA is tasked with the production of an action plan for the implementation of the recommendations stemming from this report. This should include a prioritisation of actions considering cost and time factors.

Where legislative action is to be taken, EASA should develop concrete proposals to be included in EU aviation safety regulations. These should follow the applicable rulemaking procedure, including any necessary impact assessment and take due account of input from affected parties. A plan for the monitoring of non-legislative actions should also be proposed.

Given the global nature of aviation, the Task Force highlights the need for a harmonised approach to the implementation of the recommendations. Authorities, together with other involved parties including airlines and crew associations, should cooperate at international level to achieve maximum safety benefit.

The results of the BEA-led independent safety investigation and the conclusions of other groups following issues related to the accident of Germanwings flight 9525 should be monitored closely and considered when implementing these recommendations.

Appendix A: Task Force

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