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# Clarifying EASA's new safety proposals

*An examination of the new safety recommendations for pilots and flight crew, proposed by the European Aviation Safety Agency (EASA) in the aftermath of the 2015 incident involving Germanwings Flight 9525*





### About the author Ruth Spalding

Ruth Spalding spent seven years as easyJet's Head of Volume Recruitment, managing the critical task of sourcing pilots and cabin crew for Europe's fourth largest airline and the biggest in the UK. She is now Account Director at *cut-e*, working predominantly with clients in the airline industry. A former consultant in the defence industry, she began her career in the service sector – in operations, learning and development and change consultancy roles – before joining BAA's recruitment and resourcing team at Heathrow.

## Introduction

This report summarises the new safety proposals that have been recommended by the European Aviation Safety Agency (EASA), after the 2015 incident involving Germanwings Flight 9525. It clarifies the recommendation that airlines should perform psychological assessments of their pilots and flight crew. The European Commission is expected to legislate for this recommendation in 2017. *cut-e* is publishing this information to help recruiters in the airline industry to better understand EASA's proposals and their implications.

## EASA Opinion 14/2016

In May 2015, Germanwings Flight 9525, on a routine flight from Barcelona to Düsseldorf, crashed in to the French Alps. All 144 passengers and six crew were killed. Follow-up investigations revealed the crash was deliberately caused by the co-pilot, Andreas Lubitz, who had previously been treated for depression and declared "unfit to work" by a doctor. Lubitz kept this information from his employer and reported for duty. Evidence suggests that during the flight, he locked the Captain out of the cockpit before initiating a descent that caused the aircraft to crash into a mountain. In the aftermath of the accident, EASA set up a Task Force to review and make recommendations to prevent repetition of the circumstances, and a series of outputs were subsequently presented to stakeholders for review.

In December 2016, EASA issued Opinion 14/2016, containing a series of requirements in a 70 page document (also contained in the Air OPS Implementing Rules). The proposed rules have been subject to consultation with relevant stakeholders. As part of a total system approach, they complement the proposals EASA issued in August 2016, on the update of medical requirements for pilots (Part-MED). The proposals address relevant safety recommendations made after the Germanwings Flight 9525 accident by the EASA-led Task Force.

## Summary of Proposals

- Ensuring that all pilots have access to a support programme (Employee Assistance and Whistleblowing Policies should be available)
- 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
- Mandatory random alcohol screening of flight and cabin crew within the EU RAMP inspection programme

## Regulatory Impact Assessment (RIA)

The RIA evaluated in EASA Opinion 14/2016 was an amalgamation of previous RIA's completed as part of the EASA Task Force set up in the aftermath of the 2015 accident. The RIA evaluated the findings of the Task Force under the headings of safety, economic and social impacts, and used a number of techniques aimed at combining a range of positive and negative impacts into a single framework to allow easier comparison of scenarios (See Appendix for Methodology).

## Recommendations

The outcome of the Regulatory Impact Assessment recommends that a compulsory psychological assessment of flight crew — performed by CAT operators should be implemented to maintain a high level of aviation safety. This recommendation is made in addition to a further range of changes in relation to enabling access to a flight crew support programme, and systematic drug and alcohol testing.

All recommendations are made following significant consultation with relevant stakeholders and a full Regulatory Impact Assessment, taking in to consideration the requirement to provide a cost-efficient and socially acceptable framework.

## The psychological assessment of pilots

### Overview of the Proposal

For pilots' psychological assessment by operators (recommendation 2 of the original Germanwings Task Force), a new Implementing Rule (IR) stipulates that a flight crew should have undergone a psychological assessment before commencing line flying. The AMC/GM provide details on the content and quality of the assessment, who is allowed to conduct such an assessment, and how operators can implement this assessment.

### Clarification

- The proposed IR clarifies the intent of the psychological assessment, which is to identify psychological attributes and suitability of the flight crew in respect of the work environment of the operator and to reduce the likelihood of negative interference with the safe operation of the aircraft.
- EASA has specified that the psychological assessment should be directly performed, or overseen and validated, by a psychologist, with expertise in the psychological selection process of aviation personnel and knowledge of the flight crew's aviation operating environment. This means that, for each assessment, the presence of a psychologist is not required, as long as the process is overseen and validated by a psychologist.
- EASA has clearly confirmed that the assessment should only assess the personality of the flight crew to ensure a valid prediction of responsible and safe behaviour of the pilot in respect of the work environment. The aim is not to mirror the Class 1 (clinical) assessments, but to ensure that the specific challenges of the operator are duly reflected in the recruitment process.
- Related to the use of flight training organisations, the psychological evaluation performed before commencing airline line flying is intended to select, based on their attributes, the best suitable pilots for a specific airline. For a specific operator, the selection and psychological evaluation performed by a pilot training organisation would only be meaningful if the process includes the operator-specific requirements and selection criteria. EASA would rule that the ultimate responsibility for the selection of safety-sensitive personnel, before assignment to flying duties, rests with the air operator, as they have the possibility to collect and process data through the career path of a pilot and to identify the most statistically-significant indicators. They know best how the structure, the management style, and the organisational culture affect their personnel and therefore can assess personality traits and social abilities with regard to anticipated work conditions, particularly the stress factors and the challenges stemming from their operational environment.
- The psychological assessment, identified in the Guidance Material, performed by or on behalf of an operator should not be considered or conducted as a clinical psychological evaluation of mental fitness.
- EASA has issued a guidance to clarify how an assessment made by an operator can be subsequently accepted by another operator.

### Next Steps

The EASA Opinion will serve as the basis for a legislative proposal by the European Commission in the course of 2017. To support the implementation of the new rules, EASA has prepared draft guidance material (Acceptable Means of Compliance and Guidance Material – AMC/GM), and the final AMC/GM will be published when the new rules have been adopted by the European Commission.

## Appendix

### Methodology

The recommended options for evaluation were:

Option	Short Title	Description
0	No policy change	Baseline option (no change to the existing Air OPS rules).
1	Minimum changes  (Psychological assessment of flight crew and development of support programmes by CAT operators, as well as systematic D&A testing in specific cases)	<p><b>This option mandates:</b></p> <ul style="list-style-type: none"> <li>psychological assessment of flight crew before commencing line-flying with CAT operators (Recommendation No 2 of the Task Force report and</li> <li>access to a support programme for flight crew members (Recommendation No 6 of the Task Force report; and</li> <li>systematic D&amp;A testing of air crew in specific cases (upon employment by an airline; post-incident/post-accident; with due cause, e.g. following reasonable suspicion), performed by CAT operators (Recommendation No 3 of the Task Force report).</li> </ul> <p>These changes are considered as minimum to achieve the objective of task and address the issues. Therefore, they are used as a basis for developing the other policy options. Consequently, all options afterwards are conceived integrating Option 1. This ensures that the minimum changes will be pursued regardless of the final preferred policy option.</p>
2	Random testing of flight crew by CAT operators in addition to the minimum changes through Option 1	A CAT operator is requested to conduct random alcohol and drug screening & testing on flight and cabin crew in addition to the minimum changes introduced through Option 1. This means that the CAT operator has to employ trained staff to carry out screening and testing. No testing method is prescribed. After a positive test result, blood testing is required. Confirmation of positive screening results will most likely be conducted on behalf of the operator by an independent laboratory. Confirmed positives need to be reported to the NAA. No quotas for random testing are foreseen as they depend on the operator's risk assessment. Next to personnel required to conduct the screening, additional policies and procedures, as well as facilities are necessary.
3	Alcohol screening of flight and cabin crew within the ramp inspection programme in addition to the minimum changes through Option 1	<p>This option envisages alcohol testing of flight and cabin crew. This testing is either conducted by ramp inspectors within the ramp inspection programme or by the competent law enforcement bodies authorised officials. In case the testing is conducted within the ramp inspection programme, the sampling rate will be established via the ramp inspection programme under the technical coordination of EASA and will be risk-based. It will take into account that random testing programmes already exist in some EASA Member States, where alcohol tests are conducted by the police or other State officials. Tests would be conducted via a non-invasive testing method, e.g. a breath analyser test. This option applies to EU operators, as well as third-country operators, since both EU and third-country operators are under the scope of ramp inspections.</p> <p><b>There are two possibilities depending on the national legal framework regarding who conducts the alcohol testing:</b></p> <ul style="list-style-type: none"> <li>The test is conducted within the ramp inspection programme by ramp inspectors.</li> <li>The test is conducted by the national law enforcement bodies, e.g. national police.</li> </ul> <p>In both cases, the result of the test (positive or negative) is included into the ramp database.</p>
4	Unannounced testing of flight crew after rehabilitation and return to work either within a support programme or by the operator in addition to the minimum changes through Option 1	This option envisages unannounced testing following rehabilitation and return to work in addition to the minimum changes introduced through Option 1.

The methodology applied for the RIA is the multi-criteria analysis (MCA), which allows comparing all options by scoring them against a set of criteria: safety, economic and social impacts. MCA covers a wide range of techniques that aim at combining a range of positive and negative impacts into a single framework to allow easier comparison of scenarios. The scoring of the impacts uses a scale of – 5 to + 5 to indicate the negative and positive impacts of each option (i.e. from 'very low' to 'very high' negative/positive impacts). Intermediate levels of benefits are termed 'low', 'medium' and 'high' to provide for a total of five levels in each one of the positive and negative directions, with also a 'no impact' score possible.

### Scale with scoring of the impacts

Positive Impact	Score	Negative Impact	Score
+5	Very high positive impact	-5	Very high negative impact
+4	High positive impact	-4	High negative impact
+3	Medium positive impact	-3	Medium negative impact
+2	Low positive impact	-2	Low negative impact
+1	Very low positive impact	-1	Very low negative impact
0	Insignificant	-	-

Every option is analysed as a stand-alone option and the scores are attributed individually to Options 1, 2, 3, and 4 (although Option 1 is by default already integrated into other Options).

### This approach achieved a threefold objective:

- Every option is analysed and assessed in terms of its own merits and shortcomings. Thus, every option is attributed with individual score.
- The final comparison is made based on the summing up of the scores from Option 1 and Option 2, scores from Option 1 and Option 3 and, Option 1 and Option 4.
- The final outcome of the comparison defines the best combined options, considering a benchmark above the score of Option 1.

The total number of screened flight crew for psychological assessment before commencing line flying was **100**.

## Outcome

### Assessment of individual options

Criteria	Option 0 No policy change	Option 1 Minimum changes <sup>1</sup>	Option 2 Random testing of flight crew by CAT operator	Option 3 Alcohol screening of flight crew during ramp inspections	Option 4 Unannounced testing of flight crew within after rehabilitation
Safety	-3	+3	+4	+4	+3
Social	-2	+3	-3	-1	+3
Economic	0	-3	-3	-3	-2
Overall	-5	+3	-2	0	+4

<sup>1</sup>psychological assessment, systematic D&A testing & support programme

The final result of the RIA demonstrates that a combination of Option 1, Option 3 and Option 4 contributes to maintaining a high level of aviation safety while providing a cost-efficient and socially acceptable framework.

### Final assessment and comparison of the policy options

Criteria	Option 0 No policy change	Option 1 Minimum changes <sup>1</sup>	Option 1+2 Random testing of flight crew by CAT operator	Option 1+3 Alcohol screening of flight crew during ramp inspections	Option 1+4 Unannounced testing of flight crew within after rehabilitation
Safety	-3	+3	+7 (+3+4)	+7 (+3+4)	+6 (+3+3)
Social	-2	+3	0 (+3-3)	+2 (+3-1)	+6 (+3+3)
Economic	0	-3	-6 (-3-3)	-6 (-3-3)	-5 (-3-2)
Overall	-5	+3	+1	+3	+7
Selected option <sup>2</sup>	NO	NO	NO	YES	YES

<sup>1</sup>psychological assessment, systematic D&A testing & support programme; <sup>2</sup>which is above the minimum changes e.g.  $\geq +3$

**Therefore, the RIA recommends: Mandating the minimum changes in the Air OPS Regulation as follows:**

- Compulsory psychological assessment of flight crew — performed by CAT operators
- Requirement for CAT operators to enable access to a support programme for flight crew (compulsory)
- Systematic D&A testing in specific cases (upon employment by an airline; post-incident/post-accident; with due cause, e.g. following reasonable suspicion) — performed by CAT operators





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E-mail: [info@cut-e.com](mailto:info@cut-e.com)  
[www.cut-e.com](http://www.cut-e.com)