Civil Aviation Authority

SAFETY NOTICE

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Avoidance of Loss of Control In-flight
Pilot Awareness of Aircraft State, During Periods of Multiple System Malfunctions and Flight Control Issues

This Safety Notice contains recommendations regarding operational safety.

Recipients must ensure that this Notice is copied to all members of their staff who need to take appropriate action or who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	Not primarily affected
Flight Operations:	All AOC Holders
Licensed/Unlicensed Personnel:	All Approved Training Organisations; All Pilots

1 Introduction

1.1 Loss of Control In-Flight is a significant safety concern and major contributor to worldwide aircraft accidents.

1.2 The purpose of this Safety Notice is to highlight causal factors associated with recent loss of control accidents, specifically aircraft system knowledge and technical competence in dealing with multiple system malfunctions combined with possible unexpected flight control inputs, during a period of cognitive degradation associated with 'surprise and startle effects'.

Appropriate aircraft system knowledge, technical competence, strategies for coping with 'surprise and startle effects' and correctly prioritising workload are considered as key components to effect safe outcomes

1.3 Safety Notice 2019-005 is superseded by this Safety Notice which is applicable to all aircraft types in commercial operations regardless of flight control design.

2 Action to be Taken

2.1 Utilising their Management System, Operators and Approved Training Organisations should identify potential gaps in manual flying skills, system knowledge and crew intervention methods. Specific consideration should be given to type-specific flight control issues and flight control downgrade scenarios where manual handling may be required.

2.2 The crew's ability to control the aircraft flight path in a deliberate manner, when exposed to multiple malfunctions should be demonstrated, particularly during high workload situations. Exposure to unexpected flight control inputs must also be considered.

3 Additional Requirements

3.1 Non-technical competencies have now been integrated into all flight crew initial and recurrent training programmes for a period of years and a review should be conducted to consider the effectiveness of this training and to ensure continuous development of these skills.

Specifically, training programmes should adapt to the latest understanding and develop:

- Awareness of and techniques to mitigate the effect of surprise and startle to reduce the period of cognitive degradation this may cause.
- Robust monitoring skills and effective intervention techniques.
- A Failure Management Model that facilitates the prioritisation and resolution of complex malfunctions which are beyond the scope of QRH / ECAM checklists

4 Queries

4.1 Any queries or request for further guidance as a result of this communication should be addressed to the organisation's Flight Operations Inspector.

5 Cancellation

5.1 This Safety Notice will remain in force until further notice.