

CAA Response to Recommendations Contained in CAA Paper 2009/03
Business Jet Safety Research Report

1. Introduction

- 1.1 Analysis by the UK CAA of worldwide fatal accidents to large jet and turboprop aeroplanes revealed that business jets appeared to be involved in a disproportionate number of fatal accidents. This prompted further study, which included an analysis of safety data supplemented by externally contracted research that involved personal industry visits and a questionnaire sent to operators and pilots to obtain feedback on any safety related issues. The study was recently published as CAA Paper 2009/03.
- 1.2 The study made a number of recommendations grouped under four main headings: Flight Crew Training, Regulator-Industry Interaction, Operational Issues and Air Traffic Control. The Business Aviation Safety Partnership (BASP)¹ has endorsed these recommendations.
- 1.3 The production of the report of the study involved thorough consultation with industry, which allowed a number of the recommendations to be included in the CAA Safety Plan prior to the report's publication.
- 1.4 This report details the CAA response to the recommendations and provides an update on significant progress already made with a number of items.

2. CAA Response to Recommendations

2.1 Flight Crew Training

- 2.1.1 **Recommendation 1:** Promote simulator utilisation for recurrent training; explore low cost options.
- 2.1.2 **CAA Response:** The CAA is considering this recommendation and any resulting safety improvement work will be included in the new 2009 Safety Plan.
Action Open
- 2.1.3 **Recommendation 2:** Improve pilot training: develop a system to record the performance of student pilots based on analysis of simulator flight data, aggregate the records of students and examine this pooled performance data to identify areas for improvement in the training course.
- 2.1.4 **CAA Response:** See response to Recommendation 3.
Action Open
- 2.1.5 **Recommendation 3:** Review the training principles currently being trialled for automation training in large aeroplanes for applicability to improve training for business jets.
- 2.1.6 **CAA Response:** Recommendations 2 and 3 were included in the Safety Plan 2008 Update (Item 7.16, page 56). Initial discussions have taken place between the CAA

¹ The BASP, in its former guise as the Business Aviation Safety Working Group, was established in 2007 to identify safety issues affecting the business aviation sector and to develop and support the implementation of safety initiatives. The BASP is chaired by the CAA and attended by the BBGA, DfT, EBAA, FAA, Flight Safety International, Gates & Partners, NATS, TAG Aviation and UK FSC.

and an industry-training organisation. This explored the possibility of a postgraduate research project that combines the experience of the Flight Operations Research Centre of Excellence (FORCE) work with the needs of the business jet training environment, whilst also drawing upon the CAA's FDM analysis expertise. This work will be included in the new 2009 Safety Plan.

Action Open

2.1.7 **Recommendation 4:** Inform major training organisations of pilot feedback concerning 'whole task' training and pre-course study materials.

2.1.8 **CAA Response:** The CAA is considering this recommendation and any resulting safety improvement work will be included in the new 2009 Safety Plan.

Action Open

2.2 Regulator-Industry Interaction

2.2.1 **Recommendation 5:** Provide an information leaflet specifically targeted at the business jet community containing information on the regulatory situation with regard to CAA/EASA/JAA, clarification of contact points and providing sources of 'best practice' advice and guidance on the operational issues identified in the study.

2.2.2 **CAA Response:** This recommendation was included in the Safety Plan 2008 Update (Item 7.15, page 56). A leaflet for business jet operators was produced, with the support of the forerunner to BASP, and thoroughly distributed. Enthusiastic industry take-up has resulted in supplies of this leaflet being exhausted but the intention is to produce a new enhanced version.

Action Open

2.2.3 **Recommendation 6:** Improve two-way communications between the CAA and the business aviation associations to exchange operational intelligence and regulatory advice.

2.2.4 **CAA Response:** This has been successfully achieved through ongoing BASP meetings (which include BBGA and EBAA representation) and presentations to the industry.

Action Closed

2.3 Operational Issues

2.3.1 **Recommendation 7:** Make the System for Aircrew Fatigue Evaluation (SAFE) software model available to business jet operators to raise awareness of flight crew fatigue issues.

2.3.2 **CAA Response:** The more generic action to make SAFE available to the aviation industry, as a whole, was included in the Safety Plan 2008 Update (Items 2.8 and 2.9, page 18). The SAFE software has been successfully integrated into the existing software of a commercial rostering package, which will soon be marketed.

Action Closed

2.3.3 **Recommendation 8:** Inform operators of available web-based training materials (e.g. ice and snow operations).

2.3.4 **CAA Response:** This has been successfully achieved through ongoing dissemination of material via the BASP.

Action Closed

2.4 Air Traffic Control

2.4.1 **Recommendation 9:** Jointly with NATS, support an industry forum on the safety of business jet operations and promote ATC awareness to:

- Minimise the number of radio transmissions/frequency changes during critical stages of flight.
- Recognise impact on workload during single pilot operations (e.g. last minute clearance changes).
- Highlight performance characteristics of this group of aircraft.

2.4.2 **CAA Response:** Working with NATS to explore collaborative approaches to business jet safety improvement was included in the Safety Plan 2008 Update (Item 7.14, page 56). The BASP (and its forerunner) has been established since 2007 with key input from NATS and continues to meet on a regular basis. The specific actions to promote ATC awareness will be progressed through the BASP.

Action Open

3. Conclusion

3.1 CAA Paper 2009/03 on business jet safety research has recently been published and includes nine recommendations. Many of these recommendations have already been included in the CAA Safety Plan and actioned or completed through the BASP. The remaining recommendations are actively being considered and any resulting safety improvement work will be included in the new 2009 Safety Plan.

3.2 The CAA-led BASP will continue to co-ordinate safety improvement work associated with business jet safety.