



REASSESSMENT OF THE RESPONSE TSB RECOMMENDATION A93-05

Night training on type

Background

On 30 April 1990, a Beechcraft C99 Airliner on a scheduled domestic flight from Timmins, Ontario, crashed while the crew was conducting a visual approach to land at the Moosonee Airport. The aircraft was destroyed by the impact and a post-crash fire. The captain and the two passengers were seriously injured, and the co-pilot received fatal injuries.

It was determined that the captain had inadvertently flown the aircraft into trees, during a condition of visual illusion, as a result of inadequate crew coordination in that neither pilot effectively monitored the altimeter. Contributing to the occurrence was the absence of approach lighting, the lack of a company crew pairing policy, the captain's unfamiliarity with black-hole illusion and the seating position of the captain.

The Board concluded its investigation and released Aviation Investigation Report A90H0002 on 10 March 1993.

TSB Recommendation A93-05 (March 1993)

Air Navigation Orders require air carriers to provide their pilots with certain training before they can serve as flight crew members. This training includes take-offs and landings at night in each type of multi-engine aircraft that the pilot is to fly at night.

Neither of the occurrence pilots had received the required night training on the Beechcraft C99 nor had they received night training for any of the aircraft types that they had flown in the past for any company. For these two pilots, five different companies had not conducted night training on four different aircraft types.

The questionnaire used in the recent TSB survey on Canadian commercial pilots did not specifically address night training on type; however, it did contain a question concerning required recurrent aircraft/emergency training. Fourteen per cent of the pilots surveyed indicated that this training either had never occurred or that it had occurred less frequently than required. The survey also indicated that many pilots feel that TC audits do not go far enough towards actually verifying entries in training records.

In view of the special skills needed for safe night operations, the Board recommends that

The Department of Transport validate its current procedures for checking that air carriers provide the required multi-engine night training.

Recommendation A93-05

Transport Canada's response to Recommendation A93-05 (August 1993)

Chapter 3, Section 4, Checklist OP-6, Item A.2 of the Manual of Regulatory Audits, which was published since the accident occurred, directs the audit staff to check that the flight training programme (initial and recurrent) meets the requirements of the company Operations Manual and the ANOs. A part of the Legislation/Section reference in the Manual, includes Sections 43 46 and Schedule B1 (K) of the Air Carriers Using Small Aeroplanes Order, (A.N.O., Series VII, No.3). Subsections 43(2), (3) and (4) are explicit in stipulating the requirement for air carriers to establish and provide approved ground and flight training programs and to maintain records of the training given to each crew member certifying that he is adequately trained to carry out his assigned duties. Subparagraph (1) (b) (iii) of Section 46 of the Order specifies that flight training for each crew member will include, in each type of aircraft he is to fly:

Take-offs and landings by day and, if he is to fly at night, by night.

Subsection 6.3 of the Air Carrier Inspector Manual reinforces this requirement in stating:

Each air carrier is required by the Orders to maintain a record of training and checks for each crew member. The training program of the Operations Training Manual shall include an outline of the record keeping procedure established by the air carrier and shall include copies of the forms used to record the training and checks completed.

In accordance with the National Audit Programme, TCA conducts periodic audits of air carriers to promote compliance with the aviation regulations and standards.

TCA will send a letter to all Regional Air Carrier staff recommending that they put more emphasis in checking requirements, particularly night flying training. When conducting future audits, Quality Assurance Review teams from Headquarters will ensure that the checks are completed.

TSB assessment of Transport Canada's response to Recommendation A93-05 (September 1993)

TC's response refers to existing requirements for air carriers to provide approved training programs and maintain training records, and for TC audit teams to check that these training programs comply with operations manuals and regulations. TC indicated that it will send a letter to all Regional Air Carrier staff recommending that they put more emphasis in checking requirements, particularly night flying training. Also, on future audits, TC Quality Assurance Review teams will ensure that the checks are completed.

Apparently, TC feels that existing procedures for ensuring that training requirements are met, are adequate, and that the proposed increased vigilance by TC regional inspectors and Audit Review teams should identify any shortcomings in either pilot training or the associated TC verification process.

Sustained emphasis by TC to ensure that pilots are provided with the required training should reduce the possibility of inadequate pilot training contributing to accidents. Therefore, the response is considered to be satisfactory.

TSB reassessment of Recommendation A93-05 (November 1996)

Following an occurrence (A93W0204) on 03 December 1993, the Board issued two more recommendations (A95-17 and A95-18) identifying safety deficiencies in the training of pilots involved in night operations.

In its response to recommendation A95-17, TC indicated that it has set up a Safety of Air Taxi Operations Task Force (SATOPS) to review air taxi operations in Canada. TSB staff recently confirmed that the Task Force is presently defining its terms of reference and that by the fall of 1996, the industry will be invited to provide input to the Task Force.

The consultative process of the task force has the potential, in the long term, to identify many more issues affecting air taxi operations than those addressed by the Board recommendations. However, the reply from TC does not indicate any interim action to correct the deficiencies already identified by the Board. Of particular concern are those safety deficiencies that prompted Recommendations A95-17 and A95-18. These recommendations were a follow-up to previous recommendations on night flying requirements and the effectiveness of regulatory follow-up to audits. Occurrence investigations continue to uncover shortcomings in TC's overview of the smaller air carriers, such as the ineffective verification of mandatory pilot training; yet, TC has indicated no plans to address this in the short term.

Because there is no indication by TC to take interim action to address the perennial issues of lack of pilot night training and non-compliance by operators, the replies to Recommendations A95-17 and A95-18 are assessed as being **Unsatisfactory**.

Given that the safety deficiency addressed by Recommendation A93-05 (as well as that by A95-17 and A95-18) is very similar and that this occurrence was another example of a night accident in which the pilot had not received the required night training, the lack of indication by TC to take interim action to address the issue of lack of pilot night training has prompted the Board to reassess Recommendation A93-05 as **Unsatisfactory**.

It is therefore appropriate to follow the progress on night training safety issues through Recommendations A95-17 and A95-18.

TSB review of Recommendation A93-05 deficiency file status (April 2014)

The Board requested that A93-05 be reviewed to determine if the Deficiency File Status was appropriate. After an initial evaluation, it was determined that the safety deficiency addressed by Recommendation A93-05 is addressed by the more recent Recommendations A95-17 and A95-18.

It is therefore appropriate to follow the progress on night training safety issues through Recommendations A95-17 and A95-18.

Therefore, the assessment remains as **Unsatisfactory**.

Consequently, the status of Recommendation A93-05 is changed to **Active**.

Transport Canada's response to Recommendation A93-05 (October 2017)

TC agrees with the recommendation.

The Department of Transport procedures referred to in the 1993 recommendation have been superseded during the past three decades: the Air Navigation Orders have been replaced by the CARs; safety management systems have been introduced and Civil Aviation's surveillance program has been modernized to target safety risk areas.

Current Regulations specify more precisely the training requirements for each sector of the air transportation system. Operators are required to develop training plans and schedules for TC approval. The approved training plans are the basis for assessing the compliance or non-compliance of operators' training and documentation practices with the approved training plan.

TC's review of this matter leads us to conclude that the safety action taken addresses this situation.

The department has no further actions planned.

TSB reassessment of Transport Canada's response to Recommendation A93-05 (February 2018)

TC has taken a number of actions to address the safety deficiency identified in Recommendation A93-05, regarding its surveillance procedures for ensuring that operators provide the required multi-engine night training. These include the following:

- The *Canadian Aviation Regulations* (CARs) have replaced the *Air Navigation Orders* with more rigorous flight crew training requirements;
- Under CARs Part VII, commercial air operators engaged in multi-engine night operations must establish and maintain an initial and recurrent ground and flight training program to validate the multi-engine night proficiency of their pilots; and
- Through its surveillance program, TC audits flight crew training records by utilizing system and process level surveillance procedures, which verify and validate operator compliance with multi-engine night training requirements under CARs Part VII.

The Board believes that the actions taken by TC have substantially reduced the risks associated with the safety deficiency identified in Recommendation A93-05.

Therefore, the response to Recommendation A93-05 is assessed as **Fully Satisfactory**.

Next TSB action

This deficiency file is **Closed**.