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PART1.6

CONVENING AUTHORITY COMMENTS

INTRODUCTION

1. This accident occurred in excellent weather on a sortie that was designed to give a young cadet experience of flying including the opportunity to be shown some basic aerobatic manoeuvres. Tragically it ended in a catastrophic mid-air collision that resulted in a Tutor crew losing their lives and a glider pilot narrowly escaping with only minor injuries.

THE INVESTIGATION

2. The accident took place over open countryside and, as the Tutor is a civil registered aircraft, the Air Accident Investigation Branch (AAIB) had begun an independent investigation shortly before the Service Inquiry Panel (SIP) was convened. The AAIB investigation has not yet been completed and my comments apply only to the work of the SIP. However, the assistance given to the SIP by the AAIB was fundamental in our understanding of the circumstances of the accident and I am grateful for their support in providing the technical expertise that enabled us to reach a conclusion.

3. Although neither aircraft involved were fitted with accident or voice recorders, the surviving glider pilot of G-CKHT was able to provide his perspective of what happened prior to the collision and subsequently an indication of the flight path of the Tutor. Evidence was also available from eyewitnesses, radar tapes, the glider data recorder and technical examination of the wreckage. Consequently, I am content that the Panel had sufficient information to establish the circumstances leading to the accident.

THE CAUSE

4. The SIP has stated that this accident was caused by the controlled flight of Tutor G-BYXR into the Standard Cirrus glider G-CKHT; I concur with their conclusion. The 'cause' correctly does not include why the Tutor collided with the glider or why the Tutor crew were not able to escape from the aircraft following the collision.

THE FINDINGS

5. There were numerous factors considered by the SIP to be non-contributory and I agree with their findings. In particular I am content that prior to the accident both aircraft were serviceable and that aircraft system's integrity, maintenance, weather, Tutor conspicuity and pilot fatigue were not factors. Regarding the contributory factors, I also concur with the SIP's findings. Crucially, the SIP found that the Tutor pilot was suffering from a medical condition known as Ankylosing Spondylitis (AS) and that following the

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collision, the damage to the Tutor was considered by the aircraft manufacturer to be “minimal” and that the aircraft was in a “flyable” state. I accept that the pilot’s medical condition may have made this accident more likely to occur and was a factor in the survivability of the collision.

6. Effective lookout is a fundamental and critically important skill that is practiced by all pilots and, in the absence of any other reasonable explanation, in this accident it must be assumed that the Tutor pilot did not see the glider in time to prevent a collision. AS limits head movement in all directions, particularly in the vertical plane, and consequently it degrades a pilot’s ability to lookout. The Panel found conflicting evidence concerning the Tutor pilot’s ability to conduct effective lookout. A cockpit assessment conducted in 2005 indicated that he could see the tips of the tailplane and look above the aircraft. On the other hand there are reports from several pilots who questioned his ability to lookout, with some expressing doubt that he was able to carry out a full lookout scan. Hence, although we have not been able to determine positively the limits of the pilot’s visual scene as a result of his medical condition, we can state that his condition made the lookout process more difficult and less effective. Consequently, I agree with the Panel’s statement that the pilot’s medical condition was a contributory factor in this accident.

7. The Tutor pilot’s AS medical condition was managed by the RAF medical services from 1971 until his retirement from the Service in 2005 and limitations were placed on his activities and on the type of aircraft that he could fly. Latterly though there is medical evidence suggesting that his rotational movement was limited to 50% of that of a healthy person; a fact that in my opinion would have had a serious impact on his ability to lookout to the degree and standard expected of a military pilot. The SIP also highlighted that following his retirement from the regular RAF there was no requirement for the RAF medical services to manage his condition and that this would have been the responsibility of his own medical practitioner. I consider that it is unacceptable for the RAF not to have visibility of an individual’s medical records and I believe strongly that we have a responsibility for understanding the health of all the pilots that fly our aircraft no matter what their status. If we are not fully aware of a Regular or Reserve RAF aircrew individual’s medical status then he should not be flying Service aircraft.

8. Following the collision, the Panel concluded that although the glider was uncontrollable, the damage sustained by the Tutor was minor and that had recovery action been taken, impact with the ground may not have occurred. Unfortunately, we will never be able to state with certainty why the Tutor did not recover to controlled flight following the collision, but it is possible that the Tutor pilot was incapacitated during the collision, perhaps as a result of his medical condition. This may explain why the aircraft did not recover but it does not explain why the cadet was unable to escape from the aircraft. Post collision, the Tutor span before adopting a nose down attitude and a very high rate of descent, leading the Panel to estimate that there was only 24 seconds from the collision to impact with the ground. Even if the Tutor pilot were not incapacitated, both he and the cadet would have undoubtedly suffered from a period of disorientation and shock before any attempt to abandon the aircraft could be made; this would further reduce the time available. Nevertheless, the evidence does suggest that the cadet made a brave attempt to abandon the aircraft, either following direction from the pilot or on his own initiative;

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tragically this was unsuccessful. In such extreme circumstances and with little time available, successful abandonment would have been very difficult, and perhaps impossible, especially for an inexperienced passenger. I therefore accept the Panel's opinion that the current Tutor abandonment system, including training, was an aggravating factor in this accident.

9. The final section of the Panel's findings identified that some of our flying orders were not complied with as I would expect; specifically some supervisory check rides on the Tutor pilot had not been conducted within the requisite timescales. It is essential that flying orders are understood to be mandatory and not discretionary.

RECOMMENDATIONS

10. In sum, I concur fully with all the SIP's recommendations and have initiated action to address them all. In particular a complete review of AEF operations has been conducted and more comprehensive abandonment training is now being provided. Since the current procedures in relation to medical assessment and immediate supervision of AEF pilots has not proved sufficiently effective in relation to this Tutor pilot, I have put in place a complete review of the process and am as satisfied as I can be on current information that instructors are fit to conduct their tasks. I believe that the medical assessment and supervision of AEF pilots was ineffective; a complete overhaul of the process is underway.

CONCLUSION

11. Although the SIP has not been able to determine exactly what happened during this accident, it has been able to suggest the most likely scenario. The Tutor was flying in busy airspace and, during an aerobatic manoeuvre, it collided with a glider. The glider pilot saw the Tutor and attempted to take avoiding action but it is obvious that the Tutor pilot did not see the glider in time to avoid a collision. We can never be certain why the glider was not seen but on balance, and having considered all the facts in detail, I believe that the Tutor pilot's medical condition was the significant factor in preventing him from doing so. Furthermore, since the Tutor was assessed as flyable after the collision, I consider that it was possible that the pilot's medical condition may have led to him being incapacitated in the collision. While there were procedures and processes in place to address appropriate medical fitness and flying competence, I do not consider that these procedures were effective in this case. Notwithstanding that our procedures proved ineffective, it is a matter of profound regret that the opportunities that were presented were not seized upon by relevant individuals as a way of rigorously examining the Tutor pilot's continued fitness to fly. Individuals must recognise their professional responsibilities and strive at all times to fully meet them. I give my personal assurance that all of the issues raised in this report are being addressed.

B M NORTH

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