

AIRPROX REPORT No 2013158

Date/Time: 10 Nov 2013 1310Z (Sunday)

Position: 5210N 00016W
(3.7nm S St Neots)

Airspace: Lon FIR (Class: G)

Aircraft 1 **Aircraft 2**

Type: Pitts Extra

Operator: Civ Pte Civ Pte

Alt/FL: 1800ft 3000ft
NK QFE (NK hPa)

Conditions: VMC VMC

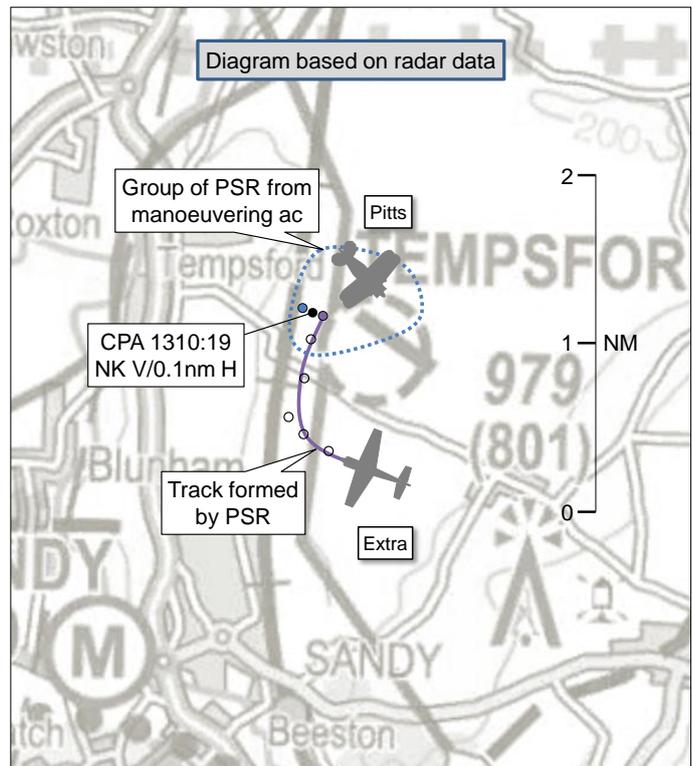
Visibility: >10km >10km

Reported Separation:

0ft V/30-100m H 500ft V/500m H

Recorded Separation:

NK V/0.1nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE PITTS PILOT reports practising an aerobatic display. The red and white aircraft was not fitted with an SSR transponder, TAS or an ACAS; the lighting state was not reported. The pilot was operating under VFR in VMC, not in receipt of an ATS but listening out on the A/G frequency of the home airfield, and had been practising an aerobatic sequence for 5-10min in one of the known local practice areas. The pilot was aware that another aircraft was embarking on an aerobatic sortie from the same airfield but heard no RT calls, as was the established norm for pilots from that airfield. In mid-sequence, conducting a 270° rolling manoeuvre, when about half-way through it inverted, the Pitts pilot saw the other aircraft, 1-200ft away, fly 'straight vertically up through the aircraft's immediate flight path' and close enough that its instrument panel and the pilot's headset could be seen. The Pitts pilot stated that had the other aircraft 'been a fraction later' it would not have been seen and there would have been a collision. On the ground, the Pitts pilot spoke with the student who had been one of the occupants of the other aircraft, and the student stated that both of them had been watching the Pitts' flight as it progressed, and had been aware of its planned operating area. The Pitts pilot considered that 'they had deliberately chosen to operate immediately adjacent' rather than in another practice area, and that the instructor's attitude was 'aggressive and concerning'.

The Pitts pilot assessed the risk of collision as 'High'.

THE EXTRA PILOT reports conducting aerobatics in a red and white aircraft with strobe lights on, as was the SSR transponder with Modes A, C and S¹. The aircraft was not fitted with a TAS or an ACAS. The pilot was operating under VFR in VMC, not in receipt of an ATS but listening out on the A/G frequency of the home airfield. The Extra pilot saw the other aircraft about 5nm away to the northwest, also 'doing aerobatics', at various heights. The Pitts reportedly 'gradually meandered' towards the Extra until, at a range of about 500m, the Pitts pilot complained on the radio and then moved off to the northeast to continue aerobatics. The Extra pilot stated that both aircraft were based at the same home airfield, and that both pilots were aware that the other was doing aerobatics in the local area.

The Extra pilot assessed the risk of collision as 'None'.

¹ The surveillance replay did not indicate any SSR output from the Extra.

Factual Background

The weather at Cranfield and Cambridge was recorded as follows:

METAR EGTC 101320Z 33007KT CAVOK 09/02 Q1018
 METAR EGSC 101320Z 30009KT 260V010 9999 FEW028 09/02 Q1018

Analysis and Investigation

UKAB Secretariat

In this case, a number of the Rules of the Air could be considered to apply, such as those covering aircraft converging, overtaking or approaching head-on. The highly dynamic nature of aerobatics precludes specific analysis but whatever the geometry between the aircraft, both pilots had an equal responsibility to avoid collision².

Summary

An Airprox was reported when a Pitts and Extra were flown into proximity at 1310 on 10th November 2013. Both pilots were performing aerobatics and operating under VFR without an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft and radar video recordings.

The Board were faced with 2 conflicting reports and spent a considerable amount of time discussing how they could be reconciled and correlated. This proved not to be fully possible, but the Board were still able to draw valid conclusions from each pilots' report by reference to the radar recording. It was established that the Pitts got airborne before the Extra and proceeded to its practice area first. The Extra pilot then flew to an area adjacent to, and just to the south of, that of the Pitts, from which, according to its pilot's own report, the instructor and the student observed the Pitts conducting aerobatics. The associated radar recording showed a group of primary returns from what was surmised to be the Pitts performing aerobatic manoeuvres. Whilst the radar returns from the Pitts were centred in one area and indicative of a coherent display practice, the radar track from the Extra was seen to progress northwards and into the area of the Pitts' radar returns.

The Board attempted to reconcile the 2 pilot-reported CPA distances with the recorded CPA but were unable conclusively so to do. Specifically, it was recognized that the radar-recorded CPA served only as an indication of the actual miss-distance due to likely position error associated with radar jitter from the primary-only returns of manoeuvring aircraft. Nevertheless, it was clear that the two aircraft had come very close to each other. Given the information available, and after much discussion, the Board decided that, in choosing an area adjacent to the already established Pitts, and then tracking northwards towards it whilst it was conducting high-energy aerobatics, the Extra pilot had flown into conflict with the Pitts. The Board concluded that, as a result, safety margins had been much reduced below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Extra pilot flew into conflict with the Pitts.

Degree of Risk: B.

ERC Score³: 20

² Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

³ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.