

AIRPROX REPORT No 2014030

Date/Time: 28 Mar 2014 1704Z

Position: 5132N 00015E
(Damyns Hall Aerodrome)

Airspace: Lon FIR (Class: G)

Aircraft 1 Aircraft 2

Type: CTSW¹ P68

Operator: Civ Pte Civ Pte

Alt/FL: 1400ft 2200ft
QNH (1014hPa) QNH (NK hPa)

Conditions: VMC VMC

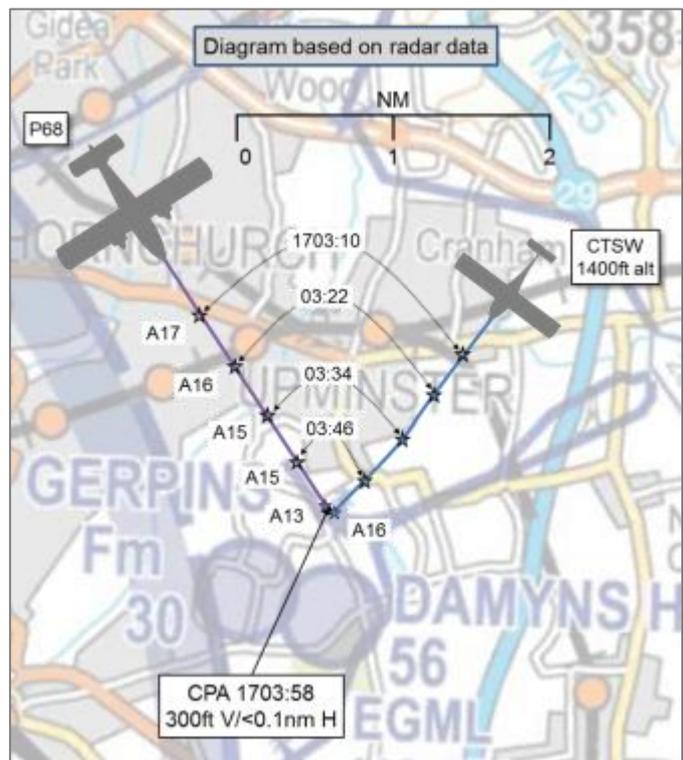
Visibility: 8km 10km

Reported Separation:

0ft V/100m H Not Seen

Recorded Separation:

300ft V/<0.1nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE CTSW PILOT reports arriving at Damyns Hall airfield. The predominantly white aircraft had wing-tip strobes, tail beacon, landing light and a flashing white light on the tail selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with a TAS or ACAS. The pilot was operating under VFR in VMC, in receipt of an A/G Service from Hornchurch Radio. On arriving in the overhead from the north, as per standard joining procedure, at 1400ft on the QNH, heading 220° at 95kt, a Twin-Tecnam was spotted, at the same level in the 3 o'clock about 200 meters away on a collision course. The CTSW pilot decided to climb immediately as there was no room to turn right. The Twin-Tecnam seemed to descend and continued to fly through the Damyns Hall overhead, which had two aircraft joining the circuit. The Twin-Tecnam pilot did not seem to be listening on the A/G Service RTF, as confirmed by a pilot on the ground who watched with alarm when he saw the very little horizontal and vertical separation between the CTSW and the Twin. The CTSW pilot stated that several aircraft overfly Damyns Hall on a weekly basis without listening on the A/G Service RTF. He noted that Damyns Hall is a busy airfield with microlight and light aircraft operated privately, and with 3 flight schools.



He assessed the risk of collision as 'High'.

THE P68 PILOT reports returning to Thurrock Airfield and stated that he did not see an Airprox event. The white aircraft had strobe lights selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with a TAS or ACAS. The pilot was operating under VFR in VMC, having been in receipt of a Basic Service from Farnborough LARS(N), but probably listening out on Unicom frequency at the reported position of the Airprox. He stated that he was positioning to land on the easterly runway at Thurrock but, because he did not see a microlight he was therefore unable to give an accurate account of the incident.

¹ The CTSW is one of a series of single-engine, high-wing, 3-axis microlights manufactured by Flight Design GmbH.

Factual Background

The weather at London/City was recorded as follows:

METAR EGLC 281650Z 09008KT CAVOK 11/02 Q1015

Analysis and Investigation

CAA ATSI

The CTSW pilot was operating under VFR, inbound to Damyns Hall, and was in communication with Hornchurch Radio (Damyns Hall A/G Service), but not in receipt of an Air Traffic Service. The P68 pilot was operating on a VFR flight to Thurrock Airfield and was in receipt of a Basic Service from Farnborough LARS(N).

Thurrock is situated 4.6nm east of Damyns Hall and both operate as unlicensed airfields. Both airfields are marked on aeronautical charts, see Figure 1 below:

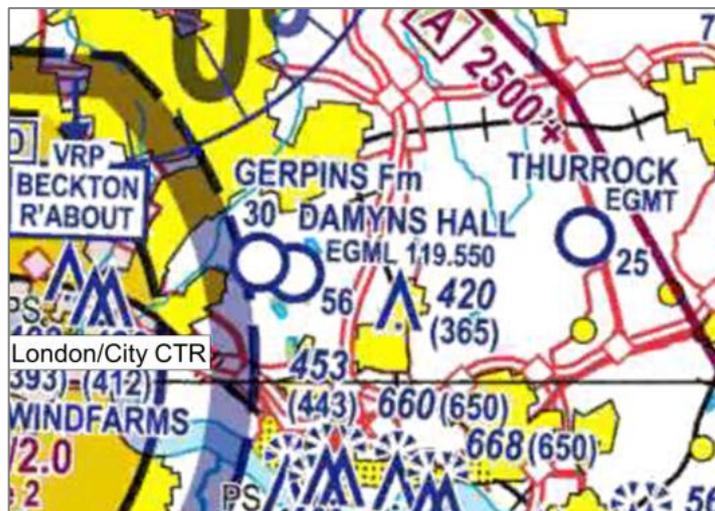


Figure 1: CAA VFR chart extract showing Damyns Hall and Thurrock Airfields

CAA ATSI had access to Farnborough LARS(N) RTF and area radar recording, together with the written reports from the CTSW and P68 pilots. The Airprox was not reported to Farnborough and the controller had no recollection of the event.

At 1641:51, the P68 pilot contacted Farnborough LARS(N), reported 7nm northeast of Benson at altitude 2400ft (QNH 1014hPa) and requested a Basic Service. The P68 pilot was allocated a squawk of 5034 and a Basic Service was agreed.

At 1701:33, the P68 pilot was 5.3nm northwest of Damyns Hall, tracking east-southeast at 2000ft, and the CTSW pilot was tracking south, 4.6nm northeast of Damyns Hall at 1700ft, squawking 7000.

At 1702:00, the Farnborough LARS(N) controller passed Traffic Information to the P68 pilot, "[P68 C/S] you got two contacts to the east of you, one just to the west of the motorway northbound and one to the east of the motorway tracking southwest, similar altitude". The P68 pilot replied, "That's copied looking thanks". The distance between the two aircraft was 4.5nm, see Figure 2 below:

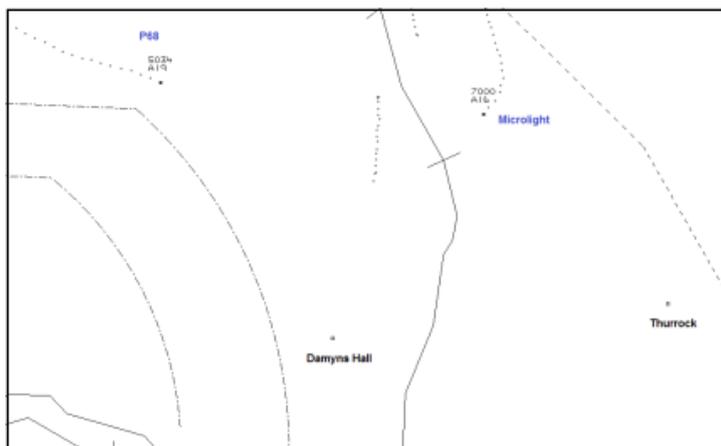


Figure 2: Swanwick MRT at 1702:00

The P68 pilot turned right and tracked towards Damyns Hall and the two aircraft continued to converge until, at 1703:54, the distance between the two aircraft had reduced to 0.2nm. At that point, both aircraft were indicating altitude 1500ft, see Figure 3 below:

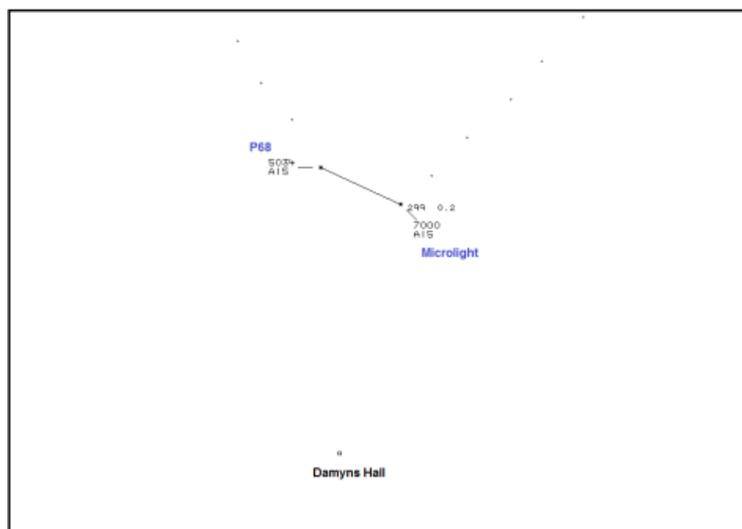


Figure 3: Swanwick MRT at 1703:54

At 1703:58, the horizontal distance between the aircraft reduced to 0.1nm and vertical separation was 300ft, see Figure 4 below:

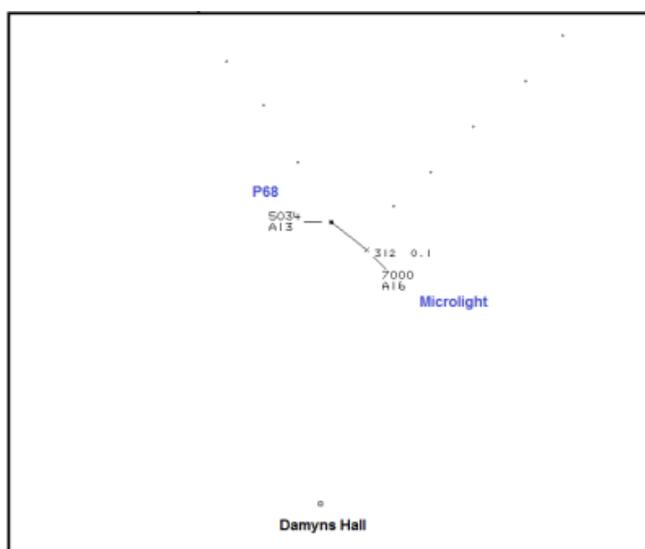


Figure 4: Swanwick MRT at 1703:58

The CPA occurs at 1704:02, when the CTSW pilot appears to have made a right turn and climbed, whilst the P68 pilot continued in the descent, see Figure 5 below:

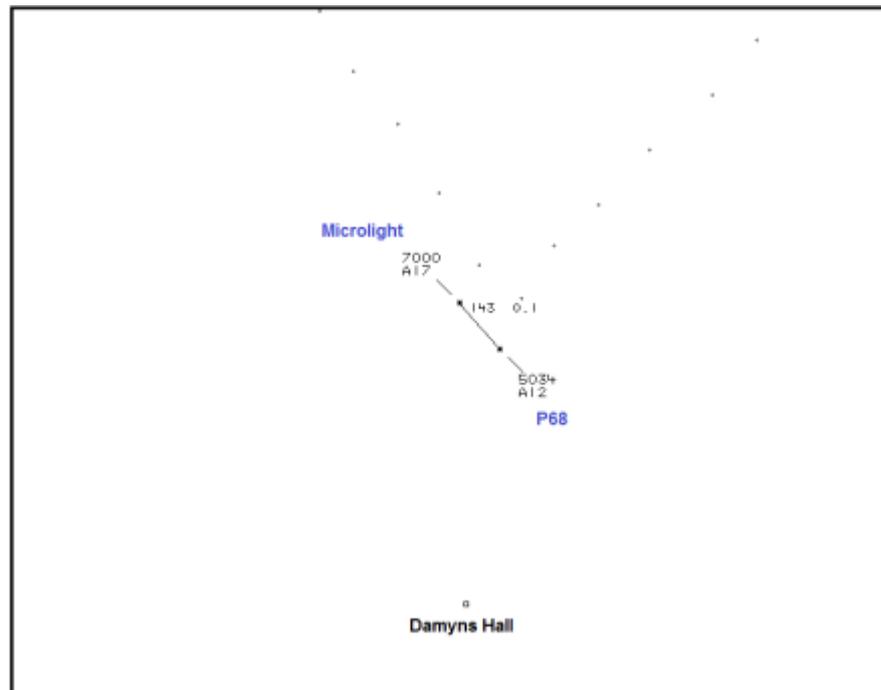


Figure 5: Swanwick MRT at 1704:02

The aircrafts' tracks continued to diverge. At 1704:20 the P68 pilot reported Thurrock in sight and requested a frequency change. The Farnborough controller instructed the P68 pilot to squawk 7000 and transferred the P68 en-route.

The P68 pilot was in receipt of a Basic Service from Farnborough LARS(N). CAP 774, UK Flight Information Services, Chapter 2, Page 29, paragraphs 2.1 and 2.5, state:

'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.'

'Pilots should not expect any form of traffic information from a controller/FISO, as there is no such obligation placed on the controller/FISO under a Basic Service, and the pilot remains responsible for collision avoidance at all times. However, on initial contact the controller/FISO may provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller/FISO unless the situation has changed markedly, or the pilot requests an update.'

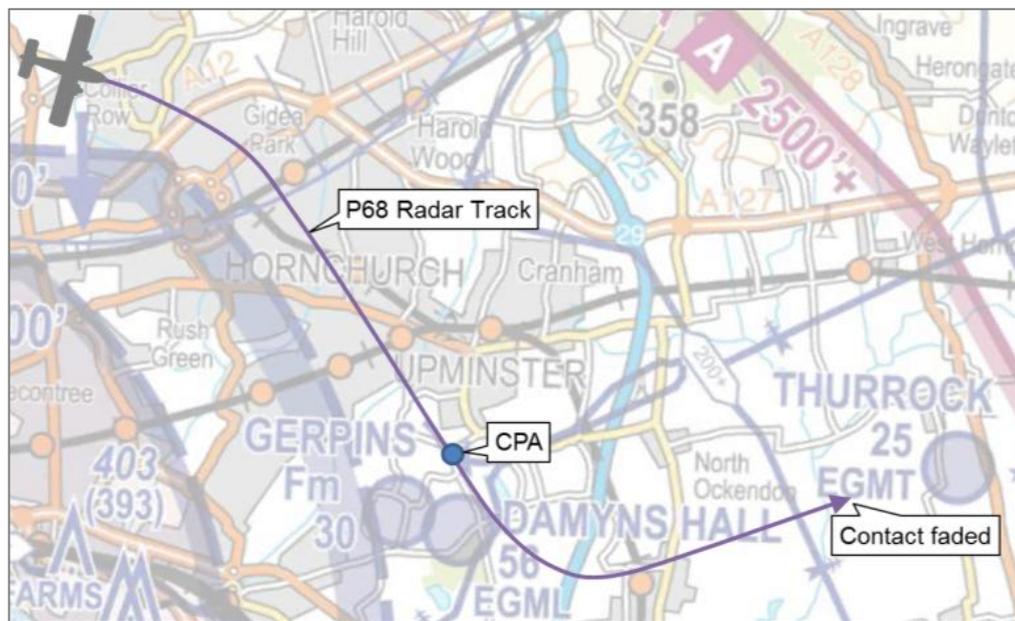
UKAB Secretariat

Both pilots were equally responsible for collision avoidance and for not flying into such proximity as to create a danger of collision². If the geometry is considered as 'Converging' then the CTSW pilot was required to give way to the P68³. If the P68 pilot was considered to be flying in the vicinity of what he knew, or ought reasonably to know, to be an aerodrome (Damyns Hall), then he was required to 'conform to the pattern of traffic formed by other aircraft intending to land at

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

³ *ibid.*, Rule 9 (Converging).

that aerodrome or keep clear of the airspace in which the pattern is formed'⁴. The flight path of the P68, inbound to Thurrock Airfield, was recorded as follows:



The Damyns Hall ATZ was disestablished on 10th January 2013, as a result of the operator's request to revoke the airfield license.

Summary

An Airprox was reported when a CTSW microlight and a Partenavia P68 flew into proximity at 1704 on 28th March 2014 in the vicinity of Damyns Hall Airfield. Both pilots were operating under VFR in VMC, the P68 pilot in receipt of a Basic Service from Farnborough LARS(N) and the CTSW pilot without an ATS, listening out on 'Hornchurch Radio'.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft, radar photographs/video recordings and a report from the appropriate ATC authority.

The Board first considered the actions of the CTSW pilot. He was rejoining the visual circuit at Damyns Hall from the north and, at the time of the Airprox, had been flying straight and level. The P68 was on a converging course in a slow descent and, as such, would have presented almost a constant sight-line in the CTSW pilot's right 3 o'clock. The Board acknowledged that this lack of movement in the CTSW pilot's peripheral vision would have made visual acquisition extremely difficult, and the Board opined that this was probably the cause of his late acquisition of the P68. The Board noted that he pulled up to avoid the other aircraft once he had sighted it at a late stage.

The P68 pilot was flying inbound to Thurrock and reported not seeing the CTSW. The P68 pilot was in receipt of a Basic Service from Farnborough LARS(N) at the time of the Airprox, and had been given Traffic Information on the CTSW, for which the Board commended the controller. Given that the CTSW was called to him and that it was on a closing track, the Board felt that the P68 pilot would have been better served by asking the Farnborough LARS(N) controller for further Traffic Information when he could not see the traffic. The P68 pilot could also have requested a Traffic Service, or simply a deconfliction heading if required. The Board were at a loss to understand why the P68 pilot had chosen to track so near to the overhead of Damyns Hall on his way to Thurrock, and at an altitude close to the circuit altitude; they opined that he would have been much better served by avoiding Damyns Hall by a more appropriate margin both vertically and horizontally.

⁴ *ibid.*, Rule 12 (Flight in the vicinity of an aerodrome).

Considering cause and risk, the Board decided that the Airprox was caused by the late sighting of the CTSW pilot and the non-sighting of the P68 pilot. Notwithstanding the CTSW pilot's avoiding action, the radar recording indicated a small separation at CPA and this, coupled with the CTSW pilot's late sighting, persuaded the Board that safety margins had been much reduced below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the CTSW pilot and a non-sighting by the P68 pilot.

Degree of Risk: B.

ERC Score⁵: 20

⁵ 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.