

AIRPROX REPORT No 2013019

Date/Time: 20 Apr 2013 1449Z (Saturday)

Position: 5201N 00012W (3.5nm E
Henlow - elev 170ft)

Airspace: LFIR (Class: G)

Reporting Ac Reported Ac

Type: Vigilant T1 SportCruiser

Operator: HQ Air (Trg) Civ Pte

Alt/FL: 1500ft↓ 1200ft↓
QFE (1027hPa) QNH

Weather: VMC CLOC VMC CLOC

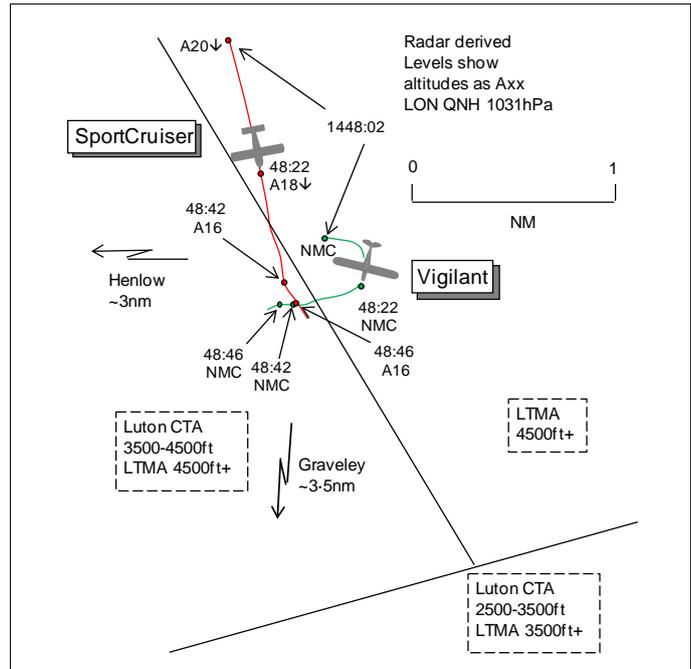
Visibility: >10km 10km

Reported Separation:

50ft V/300m H 200ft V/0.5nm H

Recorded Separation:

0.1nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE VIGILANT T1 PILOT reports flying a dual training sortie from Henlow, VFR and in receipt of an A/G service from Henlow Radio on 121.1MHz, squawking 7000 with NMC. The visibility was 10km in VMC and the ac was coloured white with hi-vis wing markings. Having completed the exercise and in preparation to rejoin the RH cct downwind for RW09R she descended using S-turns to the E of Henlow just W of the A1. Despite carrying out full lookout scans before and during the turns and seeing no traffic, when she exited heading 270° at 60kt and 1500ft QFE 1027hPa descending and checked her blind-spot she noticed a low-wing ac close behind (300m) and about 50ft above. The other ac appeared to be tracking the A1 S'bound and it may have had to change track to the L to avoid her ac. She took no avoiding action owing to her late sighting and any potential conflict had passed. At the time she was the only ac which had reported rejoining on frequency. She assessed the risk as low. After landing she checked with the Duty Instructor with respect to transiting ac but no flights had been logged. At the time of the Airprox she had been a sufficient distance from the airfield where a call from transiting ac would not be required under good airmanship. Civilian ac operating from Henlow were unlikely to be flying in this area as they were operating from RW09L with a LH cct to the N of Henlow; the club had reported no incidents. Members were reminded of the possibility of ac 'hand-railing' line features such as the A1 road.

THE SPORTCRUISER PILOT reports en-route from Coventry to a private site 6nm SSE Henlow and in receipt of a BS, he thought, from Luton Radar on 129.55Mhz, squawking an assigned code with Modes S and C. The visibility was 10km in VMC and the ac was coloured white/red with strobe lights switched on. He had commenced a gentle descent heading S at 100kt in preparation for landing with about 4nm to run. Descending through 1200ft QNH, he thought, ATC called him with an alert to "pop-up traffic below and ahead crossing L to R". He immediately saw another ac, a Grob Motorglider, 0.5nm ahead and 200-300ft below so he turned L to avoid passing directly O/H it. Having done this his co-pilot in the RH seat saw the other ac pass down their RHS by 0.5nm and 200ft below. He assessed the risk as low. He opined that given the proximity of Henlow to the Luton CTR it would be useful if Henlow traffic monitored the Luton frequency.

ATSI reports that the Airprox occurred at 1448:46 UTC, 3.5nm to the E of Henlow Airfield, within Class G airspace, between a Vigilant T1 and a SportCruiser.

Henlow does not have an ATZ but is promulgated in the AIP as having aerial sporting and recreational activity. ENR Page 5.5-4 (4 Apr 13) promulgates parachute activity within a circle of 1.5nm and vertical limit of 3500ft. ENR Page 5.5-8 (4 Apr 13) promulgates glider activity within a circle of 2nm with no specified vertical limit.

The Vigilant was returning to Henlow VFR, after the completion of a local flight and was in communication with Henlow Radio (A/G) on frequency 121.1MHz. The SportCruiser was operating on a VFR flight from Coventry inbound to Graveley, which lies 6.3nm NE of Luton airport within the Luton CTR, and was in receipt of a TS from Luton Radar on frequency 129.55MHz.

The LTC Luton INT (Radar) controller's workload was assessed as medium, with a number of zone transit ac and IFR inbound ac being vectored for the ILS RW08.

CAA ATSI had access to RT recordings for LTC Luton Radar, together with area radar recording and written reports from the 2 pilots concerned.

The Luton METARS are provided:

EGGW 201420Z 09006KT 040V150 CAVOK 13/M03 Q1031= and EGGW 201450Z 13005KT 080V200 CAVOK 13/M03 Q1031=

At 1439:20 the SportCruiser flight contacted Luton Radar and, once 2-way communication was established, reported, *"(SportCruiser c/s) SportCruiser Coventry to Graveley we're erm just er west of Saint Neots at this time four thousand er three hundred feet one zero three one requesting er traffic service and zone penetration for Graveley."* The SportCruiser pilot was instructed to squawk 4671 and shortly afterwards was identified by Luton Radar, *"(SportCruiser c/s) you are identified er twenty miles north-northeast of Luton on a Traffic Service with Luton QNH one zero three one."* This was acknowledged correctly.

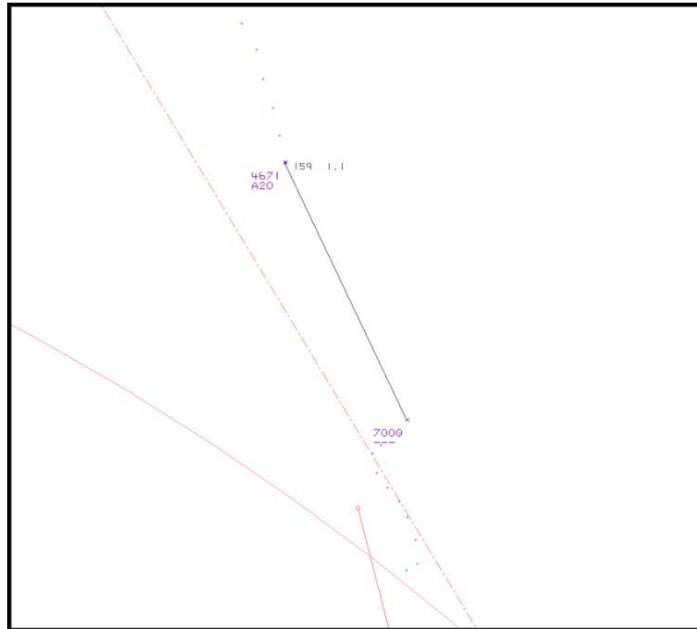
At 1442:41, the SportCruiser was shown 9.4nm N of Henlow and was given a clearance to enter the Luton CTR, *"(SportCruiser c/s) you're cleared to enter the Luton zone er on your own navigation towards Graveley when ready not above two thousand four hundred feet VFR."* The pilot replied *"Clear to enter the zone not above two four zero zero feet one zero three one (SportCruiser c/s)."*

At 1445:02, the Luton Radar controller passed TI to the SportCruiser flight regarding another ac which was crossing 2.1nm ahead.

At 1446:44, the SportCruiser was 5nm NE of Henlow tracking S and the Vigilant was shown 6nm S of the SportCruiser's position tracking E.

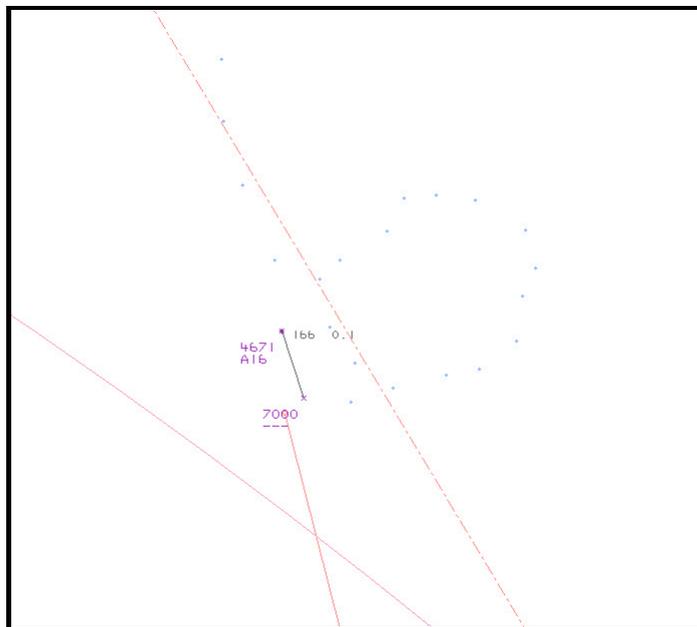
At 1447:03, the label of the Vigilant below CAS merges with an inbound ac, which was within CAS at 5000ft and being vectored downwind LH for RW08. Shortly afterwards at 1447:28 the Vigilant was shown to have turned onto a N'y track. The distance between the 2 ac was 2.5nm.

At 1448:00 the Luton Radar controller advised, *"(SportCruiser c/s) there's pop up traffic just left of your twelve o'clock may be low level no height information."* The pilot responded, *"(SportCruiser c/s) looking er visual."* The SportCruiser was at an altitude of 2000ft and Vigilant was shown to have commenced a R turn (Picture 1).



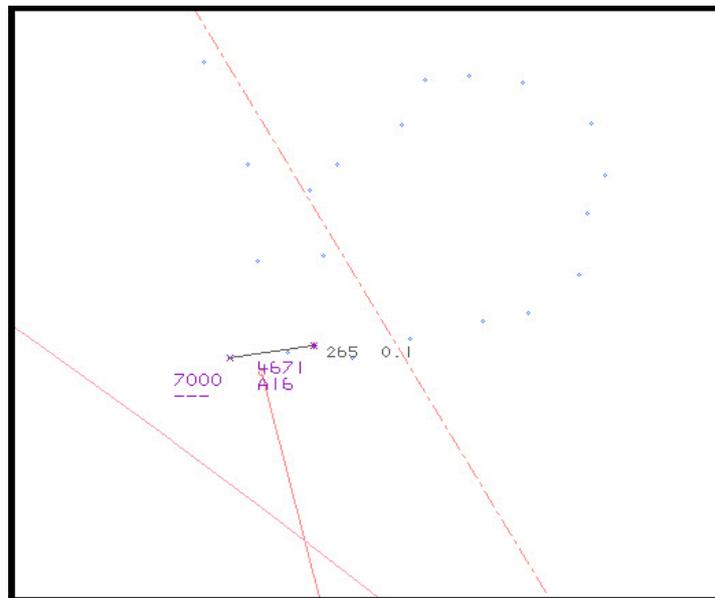
(Picture 1 -MRT radar at 1448:02)

At 1448:42, the Vigilant had completed a RH orbit and was shown tracking W. The distance between the 2 ac was 0.1nm (Picture 2).



(Picture 2 -MRT radar at 1448:42)

Shortly afterwards at 1448:46, the SportCruiser at 1600ft was shown to have made a slight L turn passing 0.1nm behind the Vigilant (Picture 3).



(Picture 3 -MRT radar at 1448:46)

At 1449:05, the SportCruiser pilot reported on final for Graveley and reported that he would change squawk to 7000 when on the ground. This was acknowledged by the Luton Radar controller.

The Luton radar controller was not aware that an Airprox report had been made and consequently no report was received from the controller.

The SportCruiser was in receipt of a TS from Luton Radar. The Luton Radar controller passed TI on pop-up traffic, which resulted in the SportCruiser becoming visual with the other traffic. CAP744, Chapter 3, Page 1, Paragraph 1, states:

‘A Traffic Service is a surveillance based ATS, where in addition to the provisions of a Basic Service, the controller provides specific surveillance-derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the avoidance of other traffic is ultimately the pilot’s responsibility.’

Paragraph 5 states:

‘The controller shall pass traffic information on relevant traffic, and shall update the traffic information if it continues to constitute a definite hazard, or if requested by the pilot. However, high controller workload and RTF loading may reduce the ability of the controller to pass traffic information, and the timeliness of such information.’

CAP774, Chapter 1, Page1, Paragraph 2, states:

‘Within Class F and G airspace, regardless of the service being provided, pilots are ultimately responsible for collision avoidance and terrain clearance, and they should consider service provision to be constrained by the unpredictable nature of this environment.’

The SportCruiser flight, in receipt of a TS, was passed TI by the Luton Radar controller and reported the Vigilant in sight. The Airprox occurred when the SportCruiser and Vigilant passed in close proximity within Class G uncontrolled airspace.

HQ AIR (TRG) comments that the Airprox was reported as a result of an effective non-sighting by the Vigilant pilot, who was concerned by the proximity of the other ac. Lookout is recognised as the primary mitigation for Vigilant operations and is taught, practiced and assessed accordingly; however, it is never 100% effective. Vigilant operators, particularly when in the immediate vicinity of

home base, will routinely have their unit's AG frequency on their single radio so could not monitor other frequencies. By way of additional mitigation, work is ongoing to fit PowerFLARM to the RAF's Vigilant fleet during 2013, which should in future provide a degree of improved awareness of transponding traffic and other FLARM/ADS-B equipped ac.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

As this encounter occurred in Class G airspace, both pilots were responsible for maintaining their own separation from other traffic through see and avoid. The SportCruiser pilot had enhanced his SA by receiving a TS from Luton Radar and the controller passed TI on the Vigilant when the confliction became apparent. The SportCruiser pilot saw the Vigilant and initiated a L turn to pass behind it. However, the Vigilant instructor did not see the SportCruiser approaching from her R, which had right of way, only visually acquiring it as it passed behind and above. Although the pilot would have had little opportunity to see the SportCruiser whilst 'belly-up' during the first part of her R turn through 270° from N, through E to W towards Henlow, thereafter Members believed that there should have been enough time for her to clear her flightpath, prior to the CPA, and that this effective non-sighting by the Vigilant crew had caused the Airprox. That said, the SportCruiser pilot's sighting and action taken left the Board in no doubt that any risk of collision had been quickly and effectively removed.

In assessing the effectiveness of the safety barriers remaining, the Board agreed that the ATC barriers had been effective, the SportCruiser pilot's SA was improved from the TI given. However, with the incident only being observed by one of the crews prior to the CPA, the 'see and avoid' safety barrier had had limited effectiveness, the Board assigning an ERC score of 4.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively a non-sighting by the Vigilant crew.

Degree of Risk: C.

ERC Score: 4.