

## **AIRPROX REPORT No 2013073**

Date/Time: 13 Jul 2013 1124Z (Saturday)

Position: 5224N 00048E  
(3.3nm ENE RAF Honington)

Airspace: Lon FIR (Class: G)

Reporting Ac Reported Ac

Type: Vigilant T1 PA28

Operator: HQ Air (Trg) Civ Pte

Alt/FL: 2600ft 2500ft  
QNH (NK hPa) QNH (NK hPa)

Weather: VMC CLBC VMC CLOC

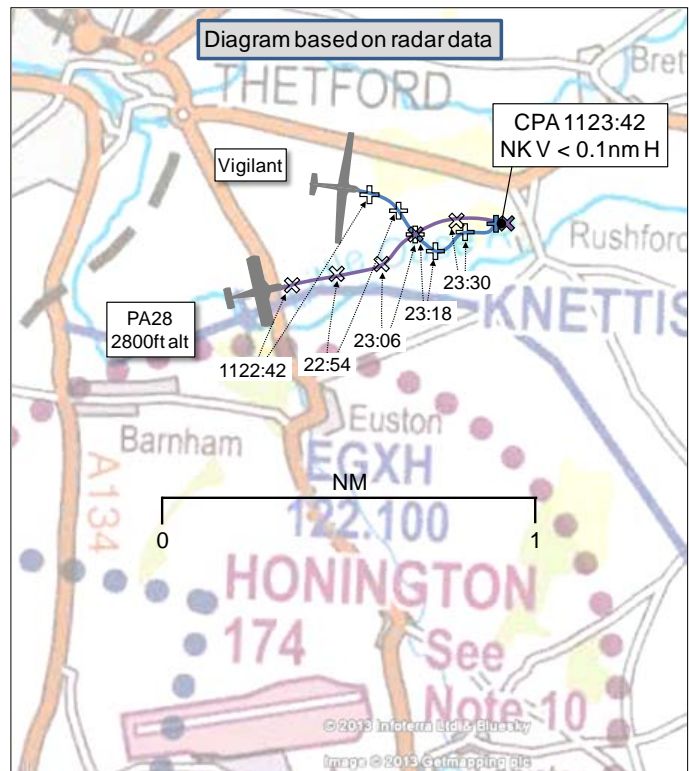
Visibility: 30km >10km

Reported Separation:

100ft V/0ft H Not Seen

Recorded Separation:

NK V/<0.1nm H



## **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE VIGILANT PILOT** reports conducting an instructional sortie. The white, red and orange 'day-glow' ac had navigation lights, landing light and HISL selected on, as was the SSR transponder with Mode A only. The ac was not fitted with an ACAS. The pilot was operating under VFR in VMC with a Basic Service from Lakenheath APR on VHF radio. He 'switched to Lakenheath QNH' and climbed to 2500ft where he started instruction. He was 1nm SW of holding point 'Yankee', pointing out the identifying features of the holding point, with the ac in a medium turn to the R at 60kt, turning through heading 360°, when a blue and white 'Piper Cherokee type' ac, with 'strobes and nav lights on', was seen directly overhead, about 100ft above. The ac came from his 8 o'clock position, heading NE, in straight and level flight. The registration could not be seen. Lakenheath Approach were contacted by telephone after the flight and he was informed that TI had been passed. Neither he nor the trainee recalled hearing any TI calls. A mute switch was fitted to the ac, but was not used during the flight.

He assessed the risk of collision as 'Medium'.

**THE P28 PILOT** reports transiting in level cruise. The white, green and gold ac had the SSR transponder selected on with Modes A and C. The lighting state was not reported; the ac was not fitted with an ACAS. The pilot was operating under VFR in VMC, in good visibility with little or no low cloud, and with a Basic Service from Lakenheath APR on VHF radio, he thought. The pilot stated that the flight progressed without memorable incident to either himself or his passenger. As with all flights, a good lookout was maintained with occasional minor course deviations when other traffic was seen. He noted that he very often operated from what was primarily a gliding site and was very aware of gliding traffic and the need to 'keep a very sharp lookout'. He did not recall any instances of risk of collision on this flight. He was aware of a number of gliding sites on the route, and had planned to climb to about 3500ft approaching Tibenham (Priory Field) gliding site. During the part of the flight to the East of Cambridge, heading 072° at 105kt, he was in contact with Lakenheath APR, 'with a Basic Service'. He did not recall RT traffic being particularly heavy and on leaving the 'radar service' he contacted his destination.

**THE LAKENHEATH APR CONTROLLER** did not file a report but a transcript of the VHF RT was provided, as follows:

<b>From</b>	<b>To</b>	<b>Transcribed Speech</b>	<b>Time</b>
PA28	APR	Lakenheath good morning [PA28 C/S]	1110:40
APR	PA28	[PA28 C/S] Lakenheath departure squawk zero four five three	1110:45
PA28	APR	[PA28 C/S] say again	1110:52
APR	PA28	[PA28 C/S] squawk zero four five three	1110:59
PA28	APR	zero four five three [PA28 C/S]	1110:59
PA28	APR	[PA28 C/S] squawking zero four five three	1111:08
APR	PA28	[PA28 C/S] pass your details	1111:19
PA28	APR	[PA28 C/S] PA28 out of *** [departure airfield] uh we just passed uh overhead of Ca-Cambridge *** of the zero seven two of the charlie foxtrot delta, two passengers on board, two two zero zero, two two zero zero feet, one zero two four for MATZ penetration please	1111:23
APR	PA28	[PA28 C/S] roger, MATZ penetration is approved, remain clear of Lakenheath, Mildenhall A T Z's ***	1111:41
PA28	APR	Roger understand the MATZ penetration approved, can you say the rest of the part of your message please slowly	1111:47
APR	PA28	Yes sir, remain clear of the Lakenheath, Mildenhall A T Z. Lakenheath Q N H one zero two three	1111:53
PA28	APR	One zero two three remain clear of the uh A T Z [PA28 C/S], thank you	1111:59
		Other traffic	1112:02
Vigilant	APR	Lakenheath approach [Vigilant C/S]	1113:19
APR	Vigilant	[Vigilant C/S] Lakenheath	1113:32
Vigilant	APR	Wattisham radio [Vigilant C/S] is a military glider flying out of Honington, two P O B, requesting basic service	1113:40
APR	Vigilant	[Vigilant C/S] what altitude will you be climbing to	1113:53
Vigilant	APR	*** six thousand feet north of the airfield	1114:00
APR	Vigilant	[Vigilant C/S] roger squawk zero four five four	1114:08
Vigilant	APR	Squawk zero four five four [Vigilant C/S]	1114:14
APR	Vigilant	[Vigilant C/S] you're radar contact under basic service, Lakenheath Q N H is one zero two three	1114:17
Vigilant	APR	One zero two three uh [Vigilant C/S]	1114:26
Vigilant	APR	Lakenheath approach I'm climbing to two and a half thousand feet	1115:01
APR	Vigilant	Copy that [Vigilant C/S]	1115:06
APR	PA28	[PA28 C/S] traffic eleven o'clock ten miles is a glider at operating in the vicinity of Honington, climbing to two thousand five hundred feet	1115:28
		Other traffic	1115:51
APR	PA28	[PA28 C/S] exiting my airspace to radar services terminated, frequency change approved squawk seven thousand	1129:27
PA28	APR	Uh [PA28 C/S] were you calling me sir	1129:50
APR	PA28	[PA28 C/S] affirmative you're exiting my airspace to the east, squawk seven thousand, radar services terminated, frequency change approved	1130:03

From	To	Transcribed Speech	Time
PA28	APR	[PA28 C/S] roger say again squawk	1130:08
APR	PA28	VFR seven thousand sir	1130:12
PA28	APR	Seven thousand roger good day	1130:13
		Other traffic	1132:01
Vigilant	APR	Lakenheath approach uh	1134:13
Vigilant	APR	Lakenheath approach [Vigilant C/S] returning to Honington, request frequency change to one two two point one and transponder change to zero four six three	1134:20
APR	Vigilant	[Vigilant C/S] approved as requested, radar services terminated	1134:34
Vigilant	APR	Thank you [Vigilant C/S]	1134:41

## Factual Background

The RAF Marham weather was recorded as follows:

METAR EGYM 131050Z AUTO 36008KT 9999 NCD 26/17 Q1024  
 METAR EGYM 131150Z AUTO 34009KT 9999 NCD 27/16 Q1024

The Norwich airfield weather was recorded as follows:

METAR EGSB 131120Z VRB03KT CAVOK 25/15 Q1024 NOSIG

## Analysis and Investigation

### UKAB Secretariat

Both pilots were operating under VFR in Class G airspace and were equally responsible for collision avoidance<sup>1</sup>. The Vigilant pilot was in receipt of a Basic Service from the Lakenheath APR. The PA28 pilot was in communication with Lakenheath APR, however, although he was issued with a squawk and given TI, no ATS was formally agreed. The aircraft crossed flight paths twice; the first time, at about 1123:18, the PA28, heading ENE, crossed 0.2nm behind the Vigilant, heading SE; the second, with the PA28 and Vigilant heading E and NE respectively, at the CPA with the radar showing the tracks within 0.1nm. Although the Vigilant pilot described his flight path as a medium turn to the right, from the proximity of the SSR it is assumed that the second crossing was the reported Airprox. It was considered that the Vigilant pilot had right of way<sup>2</sup>. Although the Vigilant pilot reported that Lakenheath APR told him after his flight that TI had been passed, the transcript shows that TI was passed to the PA28 pilot only, at 1115:28, some 8min before the CPA (see Figure 1).

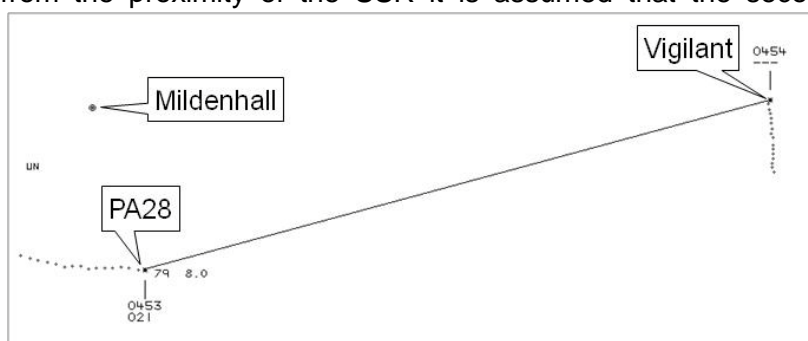


Figure 1: Area radar picture at 1115:28

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions)

<sup>2</sup> Rules of the Air 2007 (as amended), either Rule 11 (Overtaking).

A Basic Service is defined<sup>3</sup> as follows:

'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.

*Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs. It is essential that a pilot receiving this service remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight*

The provision of Traffic Information and Deconfliction under a Basic Service is defined<sup>4</sup> as follows:

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 outside an Aerodrome Traffic Zone (ATZ), 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. A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft, and a pilot who considers that he requires such a regular flow of specific traffic information shall request a Traffic Service. However, if a controller/ FISO considers that a definite risk of collision exists, a warning may be issued to the pilot.

*Traffic information in general terms could include warnings of aerial activity in a particular location, e.g. "Intense gliding activity over Smallville".*

*In order to comply with the Rules of the Air Regulations 2007 (as amended) with regard to flight within an ATZ, specific and, where appropriate, updated traffic information will be provided to aircraft receiving Aerodrome Air Traffic Services.*

## Comments

### HQ Air Command

Given that the PA28 pilot reports making 'occasional minor course deviations when other traffic was seen,' and his deviation to the left at 1123:05, it is possible that he initially sighted and avoided the Vigilant. However, given the eventual proximity and reported height separation, it seems very unlikely that he maintained this sighting until the CPA. The Vigilant pilot's report of the incident geometry is hard to correlate to the radar trace but it is clear that his sighting only occurred as the PA28 passed overhead. He points out in his report that he was dividing his attention between instructing, pointing out ground features and lookout; once he had turned left, away from the approaching PA28, his chances of sighting it were very much reduced. The program to fit Vigilant with PowerFLARM<sup>5</sup> is in progress and should improve awareness of proximate transponding and FLARM-equipped aircraft. This should reduce the impact of similar late/non-sighting events.

### USAFE

The Lakenheath RAPCON<sup>6</sup> place all crossers of the Lakenheath/Mildenhall CMATZ under a Basic Service, or higher if necessary, as a matter of routine; the controller's omission to state the service to the PA28 was an error but the intended service was clear from the traffic information passed on

<sup>3</sup> CAP774 (UK Flight Information Services) dated 19<sup>th</sup> November 2009, Chapter 2 (Basic Service), paragraph 1 (Definition)

<sup>4</sup> ibid. paragraph 5 (Traffic Information) and paragraph 6 (Deconfliction).

<sup>5</sup> <http://www.powerflarm.aero/index.php/en/technology/traffic-detection>

<sup>6</sup> Radar Approach Control.

the Vigilant. While the RAPCON controller applied a Basic Service in accordance with its definition, the tracks and ultimate proximity of the 2 aircraft indicate that additional traffic information to both aircraft should have been considered. The Unit is addressing the matter.

## Summary

A Vigilant T1 and a PA28 flew into conflict at 1124 on 13<sup>th</sup> July 2013, 3.3nm ENE of RAF Honington. The Vigilant pilot was in receipt of a Basic Service from Lakenheath APR; the PA28 pilot was in communication with Lakenheath APR but was not in receipt of an agreed ATS. He received one TI call on the Vigilant 8min before CPA but he did not see it and continued en-route at about 1130. The Vigilant pilot did not report the Airprox on the RTF in use but did so after landing.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the pilots of both ac, a transcript of the relevant RT frequency and radar video recordings.

The Board first considered the pilots' actions, noting that they were equally responsible for collision avoidance, and that the Vigilant pilot had right of way as the aircraft being overtaken. The PA28 pilot had given some consideration to his planned flight but was not in receipt of an ATS type that could have materially assisted with his collision avoidance responsibility. The Board noted that although an ATS had not been agreed, the PA28 pilot was, in effect, in receipt of a Basic Service. The Vigilant pilot did not see the PA28 until it was directly overhead, too late to take any avoiding action. The Vigilant pilot was faced with the competing requirements for a cockpit environment quiet enough for effective instruction and collision avoidance assistance, normally provided by a Traffic or Deconfliction Service. On this occasion, it transpired that conflicting traffic was the priority.

Turning to the cause, it was apparent that the PA28 pilot had not been concerned by the proximity of other aircraft during his flight and, given the proximity reported by the Vigilant pilot, the Board's opinion was that he did not see the Vigilant. Given the proximity and this non-sighting, the Board felt that safety margins had been much reduced below normal. The Lakenheath APR was not required to provide TI, but the Board opined that he had sufficient Situational Awareness of the two aircraft that warranted timely TI; the Board considered that lack of timely TI was contributory to the cause. It was also noted that had either pilot obtained a Traffic or Deconfliction Service, this Airprox would probably not have occurred.

The Board considered that a recommendation was warranted for Lakenheath to review their RT nomenclature and ATS provision.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A non-sighting by the PA28 pilot of the Vigilant that he was overtaking.

Contributory Factor(s): Lack of timely TI from the Lakenheath controller.

Degree of Risk: B.

ERC Score<sup>7</sup>: 100

Recommendation(s): Lakenheath review their RT nomenclature and ATS provision.

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<sup>7</sup> 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.