

## **AIRPROX REPORT No 2013084**

Date/Time: 20 Jul 2013 1541Z (Saturday)

Position: 5203N 000 13W  
(3nm SE of Biggleswade)

Airspace: Lon FIR (Class: G)

Reporting Ac Reported Ac

Type: Vigilant Hurricane

Operator: HQ Air (Trg) Unknown

Alt/FL: 1800ft NK  
QFE (1019hPa)

Weather: VMC CAVOK NK

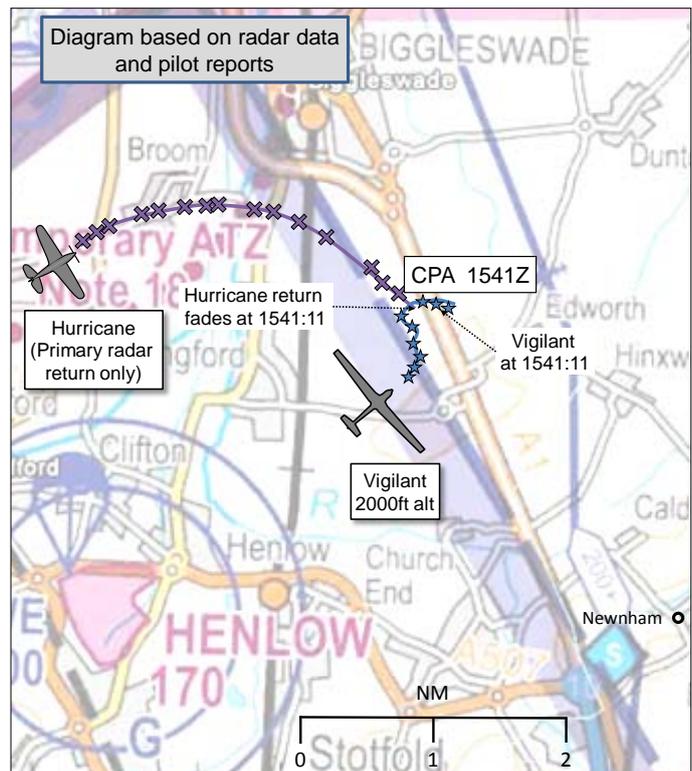
Visibility: 10km NR

Reported Separation:

0ft V/20m H NK

Recorded Separation:

NK



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

**THE VIGILANT PILOT** reports flying VFR, with a student, in a white motor-glider, displaying orange hi-visibility patches, with the strobe, navigation and landing lights turned on. He had selected transponder mode 3/A code 7000 (modes C & S were not fitted), and was in radio contact with Henlow Radio. The student was on a work-up sortie designed to lead to the first off-circuit solo sortie and had been briefed to operate 'as if solo'. They discussed recent Airprox events in the area and the student was tasked with selecting a suitable operating area; they elected to operate to the east of the A1 to the south of Biggleswade, allowing a suitable margin from the line-feature to allow other pilots to navigate along it safely.

The aircraft was climbed to 2000ft; after crossing the A1 the instructor was scanning to the right and noticed a 'fast-moving aircraft' approaching from behind. He identified it as a Hurricane, which appeared to 'formate' in a position around 20m from his starboard wing-tip for 'a couple of seconds' he reported; this impression was strengthened as the Vigilant pilot recalls seeing the Hurricane pilot look across towards his aircraft. The Instructor then saw the Hurricane dive towards what he believed was the FARR Festival, at Bygrave Woods near Newnham, before commencing a series of aerobatic manoeuvres.

He assessed the risk of collision as 'Low'.

**THE HURRICANE:** The radar recording showed a primary track, travelling at an appropriate speed for a Hurricane, but it faded 0.3nm from the Vigilant and could not be re-identified. The operators of Hurricanes in the area were contacted; the Battle of Britain Memorial Flight and the Shuttleworth Collection both confirmed that their Hurricanes were either on the ground or in another location at the time of the Airprox. Another local operator, with a Hurricane airborne at the time, declined to co-operate with the UKAB and stated that he did not wish to be contacted again regarding the matter.

## **Factual Background**

The weather at Cranfield at 1550 was notified as:

METAR EGTC 201550Z 02012KT 9999 SCT022 20/16 Q1023

## Analysis and Investigation

### UKAB Secretariat

Analysis of the radar recording shows the Vigilant operating 3nm to the north-east of Henlow, tracking east with no mode C indication available. The aircraft manoeuvres left and right twice, and then crosses the A1 just before the reported time of the Airprox.

A primary radar return appears 3nm to the north of Henlow, moving in a steady right-hand curving turn towards the Vigilant. The return crosses the A1 and then disappears from the recording 0.3nm behind and slightly to the right of the Vigilant's return. Primary returns can then be observed twice, ahead of the Hurricane's track, consistent with its track speed, around 1nm to the north west of Newnham, but cannot be positively correlated with the Hurricane's previous radar returns.

The Vigilant had right of way because it was being overtaken by the Hurricane, which was required to overtake on the right.<sup>1</sup> The Vigilant pilot's report and the radar recording indicate that the Hurricane passed down the right-hand side of the Vigilant. The Hurricane pilot had the responsibility to 'keep out of the way' of the Vigilant until the aircraft were clear of each other.<sup>2&3</sup> The Hurricane's radar return fades 0.3nm from the Vigilant's return with no Mode C information available for either aircraft; given the tracks of the aircraft it is possible that the actual CPA was closer, but the Vigilant pilot's report of 20m H cannot be corroborated by the radar recording.

## Comments

### HQ Air Command

Without the report from the Hurricane pilot, assessing this Airprox is much more difficult and it is hard to identify what might be done to prevent a recurrence. The Hurricane pilot had the responsibility to avoid the Vigilant under the Rules of the Air and either did not see it or chose to fly close enough to cause concern. For their part, the Vigilant crew appear to have had reasonable situational awareness, sighting the Hurricane as it approached them initially from the outside of their turn and then from behind.

## Summary

The Airprox occurred in Class G airspace, 3nm south-east of Biggleswade, between a Vigilant motor-glider and a Hurricane, which overtook it. The Vigilant pilot was carrying out an instructional sortie and was flying VFR in VMC without an air traffic service. The Hurricane could not be definitively traced so the views of its pilot could not be included in this analysis.

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

Information available included a report from the Vigilant pilot and radar recordings.

The Board commented that, despite the unique nature of the aircraft, it was unfortunate that the Hurricane pilot could not be definitively identified. They also commented that it was highly unhelpful that a Hurricane pilot who had been airborne at the time, and who could have been flying in that area, chose not to co-operate with the Board, even to rule himself out of the investigation. Whilst it was still possible to assess the Airprox using the Vigilant pilot's report supported by the radar data, the Board was clear that it would have been much easier to identify lessons and compile a more accurate analysis of the event if a report from the Hurricane pilot concerned had been obtained.

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<sup>1</sup> Rules of the Air 2007, Rule 11, Overtaking, para 1.

<sup>2</sup> Rules of the Air 2007, Rule 11, Overtaking, para 2.

<sup>3</sup> Rules of the Air 2007, Rule 8, Avoiding Aerial Collisions, paras 2 & 3.

It was evident to the Board that the Vigilant pilot had seen the Hurricane early and had maintained his course and speed to allow the Hurricane to overtake. The Board members also noted that the Vigilant pilot had reported that the Hurricane pilot appeared to look across at the Vigilant. Although the radar shows a significant speed differential between the aircraft, the Hurricane return disappears before the likely CPA, and the Board opined that the geometry of the encounter, and the fact that the Hurricane reportedly appeared to briefly stabilise near the Vigilant, meant that it was very likely that the Hurricane pilot had also seen the Vigilant. For his part, the Vigilant pilot remained in visual contact throughout, and ready to take avoiding action if required, even though the awareness and intentions of the Hurricane pilot were unknown. Consequently, the Board assessed the degree of risk as C; there was no risk of collision. It was unanimously agreed that the cause of the Airprox was that the Hurricane pilot flew close enough to the Vigilant to cause its pilot concern.

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

Cause: The Hurricane pilot flew close enough to the Vigilant to cause its pilot concern.

Degree of Risk: C.

ERC Score<sup>4</sup>: 4.

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<sup>4</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.