

## AIRPROX REPORT No 2010170

Date/Time: 3 Nov 2010 1202Z

Position: 5452N 00308W  
(2nm N Wigton )

Airspace: LFA 17/Scot FIR (Class: G)

Reporting Ac      Reported Ac

Type: Hawk                      Gyroplane

Operator: HQ Air (Trg)      Civ Pte

Alt/FL: 1000ft                      800ft  
(RPS 998mb)                      (QFE NR)

Weather: VMC CLBC              VMC HAZE

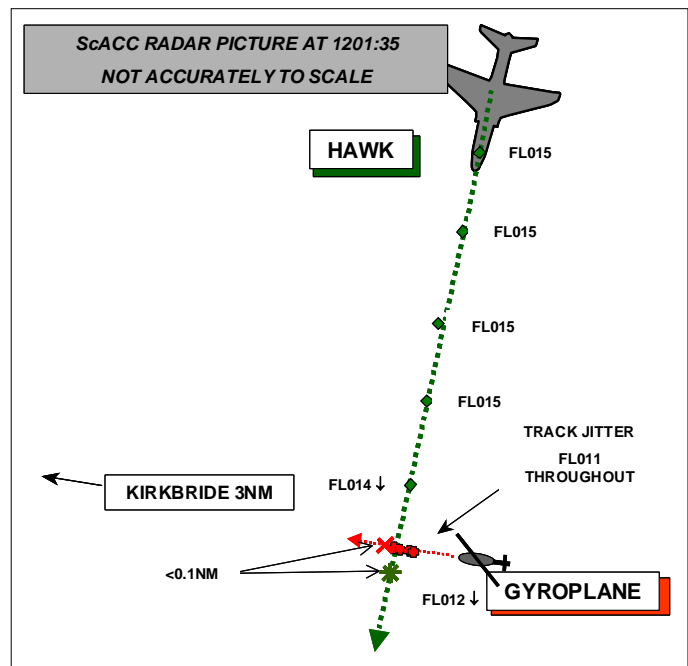
Visibility: 20km                      8nm

Reported Separation:

0 V/100ft H                      250ft V/ 200m H

Recorded Separation:

100ft V/ <0.1nm H



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE HAWK (STUDENT) PILOT** reports flying a solo low level navigation sortie in a black ac with nose light and strobes switched on, squawking 7001 with Mode C, but TCAS was not fitted. After coasting in at about 1000ft amsl about 5nm W of Carlisle, he turned onto 190° at 420kt and visually identified and avoided Kirkbride microlight site by about 3nm to the E. He saw one light ac passing beneath him and elected to remain high until approaching abeam the town of Wigton, 4nm S of Kirkbride. Approaching abeam Wigton, a descent was commenced and he saw a dark blue high-wing weight-shift microlight 150ft away, slightly left of the nose, moving from left to right, wings level, and on a collision course. He immediately broke upwards to the light buffet to avoid a collision but on checking the G meter, he found that the pull had exceeded 8G so he elected to climb out of low-level and recover to RAF Valley. An Airprox was declared to London Military and he assessed the risk as being High.

**THE GYROPLANE PILOT** reports flying a black Gyroplane with strobes and landing lights switched on, squawking 7000 with Modes C and S, on a local flight from Kirkbride unlicensed airfield and listening out on their frequency; PCAS was carried. He was on the approach to RW28 at 60kt and while lining up on final, a Hawk approached from the N and appeared not to have seen him. The Hawk altered course and by then he had commenced a descent out of its path but continued inbound. He was transponding and listening on 124.4 and was disappointed that the Hawk pilot was unaware of his presence and was flying so close to an active airfield. He assessed the risk as being low.

UKAB Note (1): The Carlisle METAR was:

METAR EGNC 031150Z 26018KT 230V290 9999 SCT023 11/06 Q1006

UKAB Note (2): The recording of the ScACC radars show the incident clearly. The Hawk, squawking 7001 with Mode C, approaches the CPA from the N, tracking 190°, in a descent, as described in the pilot's report above. Meanwhile the Gyroplane, squawking 7000 with Modes C and S, approaches the CPA very slowly from the E, tracking about 280°, level at FL011 (alt 900ft) throughout the recording. The Hawk passes just (<0.1nm) behind the Gyroplane at FL012 (100ft above it) still in the descent. The break is not evident on the recording until 6sec after the ac had passed. The CPA was 3.2nm to the E of Kirkbride airfield.

**HQ AIR (TRG)** comments that this was a late sighting by the Hawk pilot. However, as he was descending, the gyrocopter would have been below the horizon making an already small target even harder to see. The pilot's lookout was also weighted towards Kirkbride, the other side of his nose to the conflict in this case. The excess G pulled was appropriate and played a major part in avoiding a collision. It should be noted that the early sighting by the Gyrocopter pilot also played a significant part.

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

Information available included reports from the pilots of both ac, radar recordings and a report from the Hawk operating authority.

Members noted that the Radar recording showed that the Hawk had passed 3.2nm to the E of Kirkbride, a distance they considered adequate. Further, the Hawk pilot was aware of Kirkbride, positively identified the airfield and ensured that he had avoided it by a suitable margin; but since it is unpublished, he had no means of knowing that he would pass through the approach path.

Although similar in some respects, there were several areas where the two pilots' reports differed. Having discussed the reports and being briefed on the radar recording, Members were confident that the Gyroplane identified was the ac involved and the Hawk pilot had mistakenly thought it to be a microlight. Members commended the Gyroplane pilot for squawking because had he not done so his ac would almost certainly not have shown on the radar recording; since he had it was possible to verify the horizontal and vertical geometry of the incident. Members could not explain why the Hawk had not been displayed on the Gyroplane pilot's PCAS, as it had been 'line of sight' throughout and had also been squawking with Mode C. Nevertheless, the Gyroplane pilot had seen the Hawk in his 3 o'clock at a distance he estimated to be 2nm and opted not to take any avoiding action. Had the Hawk actually been 2nm away when first sighted and the Gyroplane had been flying at 60kt, then the Hawk would have passed  $\frac{1}{4}$  nm behind the gyroplane in the 17sec it would have taken for the ac to cross. On the other hand the Hawk student pilot saw the Gyroplane just to the left of his nose much later, estimating that it was only 150ft away and therefore aggressive vertical evasion was required. Members concluded that although the respective clock codes reported had been correct, the Hawk must have been closer to the Gyroplane when it was first seen and the Gyroplane must have been sighted at a distance in excess of 150ft (1.6 sec) for the Hawk pilot's avoidance to be effective.

Notwithstanding that both ac could be hard to see due to their size and lack of relative movement on a near collision course, both pilots had a responsibility to see and avoid each other. Therefore Members agreed that the cause of the incident had been late sightings by both pilots. However, the Gyroplane pilot's early descent and the Hawk pilot's much later break upwards had been effective in removing any risk that the ac would have collided.

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

Cause: Late sightings by both pilots.

Degree of Risk: C.