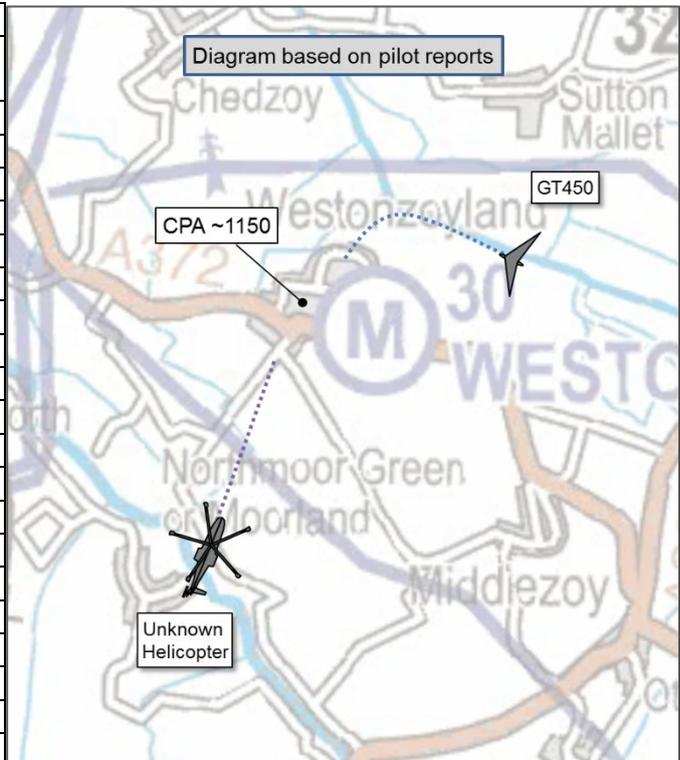


**AIRPROX REPORT No 2018317**

Date: 12 Dec 2018 Time: 1150Z Position: 5106N 00254W Location: Westonzoyland

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	Pegasus GT450 Quik	Unknown helicopter
Operator	Civ FW	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	
Service	None	
Provider		
Altitude/FL	NK	NK
Transponder	Not Fitted	
<b>Reported</b>		
Colours	White, Red, Blue	
Lighting	None	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	800ft	
Altimeter	QNH	
Heading	WNW	
Speed	60kt	
ACAS/TAS	Not fitted	
Alert	N/A	
<b>Separation</b>		
Reported	0ft V/400m H	
Recorded		NK



**THE PEGASUS GT450 PILOT** reports that he was an instructor on a dual, flex-wing, training exercise. They had earlier taken off from Westonzoyland, flown 40mins of PFLs, and then returned to the airfield for circuits. The instructor was demonstrating a circuit to RW15 and flying from the rear seat, which has limited visibility. They were making calls on frequency, and were flying at 800ft over the King Sedgemoor Drain. He was about to call final, when the student alerted him to an aircraft ahead. The instructor looked around the student's head and saw a large helicopter ahead of them at the same level. It was in a left turn, but had been tracking northeast. He turned left to increase horizontal separation and climbed to avoid any rotor downwash. If neither aircraft had taken avoiding action he believed the helicopter would have tracked across the downwind end of RW15 and they would have flown immediately below it. The pilot provided a sketch diagram of the incident, shown at Figure 1.

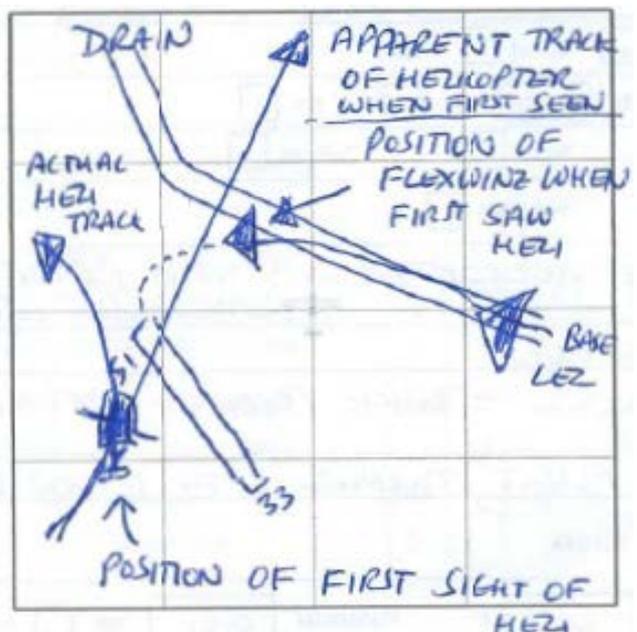


Figure 1

He assessed the risk of collision as 'High'.

**THE HELICOPTER PILOT** could not be traced.

## Factual Background

The weather at Yeovilton was recorded as follows:

METAR EGDY 121150Z 13014KT 9999 FEW014 SCT030 09/04 Q1019 BLU NOSIG=

## Analysis and Investigation

### UKAB Secretariat

Neither aircraft could be seen on the NATS or Yeovilton radar replays. At first it was thought that a JHC Merlin could be the helicopter in question, but an extensive investigation determined that, although there was a Merlin in the area at the time, it was low-level at 100ft and had routed south and east of Westonzoyland, and therefore could not be the helicopter that the GT450 pilot saw.

The GT450 and unknown helicopter pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation<sup>2</sup>.

## Comments

### The GT450's Operating Authority

Westonzoyland is a private unlicensed airfield used by Westonzoyland flying club and a microlight training school. It is a very active airfield with many microlight aircraft, both 3-axis and weight-shift. It operates 7 days a week 0900L to 2100L (or dusk) weather permitting. Since it has no ATZ, overflight by non-Westonzoyland based aircraft is a problem, more so with helicopters than fixed-wing aircraft.

This incident, which had the potential for fatal results, was caused by a late sighting of the helicopter flying through the active circuit at circuit height (800ft). The helicopter viewed into sun from the flex-wing was masked partly by the glare from the low sun and partly by the student sitting in front of the instructor.

The helicopter turned left, maybe to avoid the flex-wing or simply because he was flying around the village of Westonzoyland. The flex-wing pilot therefore had to also break left to maintain separation, he also climbed to go above the helicopter because an encounter with its down-draft would have almost certainly led to a loss of control, with possible fatal consequences. Since the helicopter was into sun, the flex-wing pilot was unable to make an accurate identification of the other helicopter other than it was single rotor, dark in colour and probably had retractable landing gear.

It is appreciated that the airfield is in open FIR in Yeovilton's AIAA, but it is designated as an active microlight airfield on aviation charts. Good airmanship would dictate that flying across an active airfield at 800ft without radio contact is not to be recommended without first ensuring there would be no possibility of conflict with circuit traffic.

## Summary

An Airprox was reported when a GT450 ultralight and an unknown helicopter flew into proximity at Westonzoyland at around 1150hrs on Wednesday 12<sup>th</sup> December 2018. The GT450 pilot was operating under VFR in VMC, in the Westonzoyland circuit. Despite extensive searching the helicopter pilot could not be traced.

<sup>1</sup> SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

<sup>2</sup> SERA.3225 Operation on and in the Vicinity of an Aerodrome. MAA RA 2307 paragraph 15.

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

Information available consisted of reports from the GT450 pilot and radar photographs/video recordings.

The Board first looked at the actions of the GT450 pilot. He was flying in the visual circuit and was understandably not expecting to see other aircraft in the circuit area. The student alerted the instructor to an aircraft ahead at a similar level and, despite the difficulties concerning look-out with another pilot sitting in front of him, the instructor had managed to see the helicopter with enough time to take avoiding action.

Turning to the helicopter, the JHC member told the Board that at first it was thought to be a Merlin that was booked into the low-level system in the area, but an extensive investigation had revealed that the Merlin was low-level and had routed to the south and east of Westonzoyland; as a result, it could not have been the helicopter in question. Members wondered whether the GT450 pilot may have reported the time of the incident in error, but were told that although the radar replays had been checked from 1120 to 1228, nothing could be seen on the NATS radars. Yeovilton were also asked to check their radar but nothing was seen (although the Board were told that Westonzoyland lies within an area of known poor radar performance for Yeovilton's radar). Although it was known that there were a number of regularly used civilian helicopter landing areas in the vicinity, it was unfortunately not practical to contact each one to see if any movements had been reported for that time. Without the helicopter pilot's report it was impossible to know whether he had seen the other aircraft or not, although the GT450 pilot had reported that he believed the other pilot was also turning away and so it was surmised that it was possible that he had seen the GT450.

Noting the comments of the GT450's operating Authority about the issue of aircraft overflying the airfield, the Board agreed that operations from busy minor airfields without an ATZ attracted greater exposure to the risk of collision from other aircraft that might not be aware of the airfield. That being said, members familiar with flying in the area noted that Westonzoyland was known to be a busy airfield, and that military maps had flow arrows printed onto the charts in that area which helped to remind pilots to keep clear. Nevertheless, it was ultimately the purpose of ATZs to provide a protected volume of airspace for busy airfields, and the Board had recently debated this issue for other minor airfields. This prompted a familiar discussion on the merits of an ATZ balanced against the associated administrative burden, regulatory requirements and attendant costs. Although members agreed that it would be prudent for Westonzoyland to have an ATZ, they noted that ATZs were not necessarily that easy to establish, and sometimes minor aerodrome owners were discouraged by the associated costs and the amount of work involved to satisfy the regulatory processes.<sup>3</sup>

Turning to the cause of the Airprox, the Board quickly agreed that the helicopter pilot had flown close to the pattern of traffic and into conflict with the GT450. In assessing the risk, members noted that the GT450 pilot had taken timely and effective avoiding action, and that probably the helicopter pilot had also turned away. Accordingly, they determined that, although safety had been degraded, there had been no risk of collision; risk Category C.

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

Cause: The helicopter flew close to the pattern of traffic and into conflict with the GT450 Pegasus.

Degree of Risk: C.

Safety Barrier Assessment<sup>4</sup>:

<sup>3</sup> <http://publicapps.caa.co.uk/docs/33/20190201PolicyStatementEstablishmentAndDimensionsOfATZs.pdf>

<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

**Flight Crew:**

**Regulations, Processes, Procedures, Instructions and Compliance** were assessed as **ineffective** because the unknown helicopter appeared to fly too close to the final approach of an active airfield.

**Tactical Planning** was assessed as **partially effective** because the unknown helicopter's route took him too close to the Westonzoyland circuit.

**Situational Awareness and Action** were assessed as **ineffective** because the GT450 pilot did not have any situational awareness of the other aircraft.

