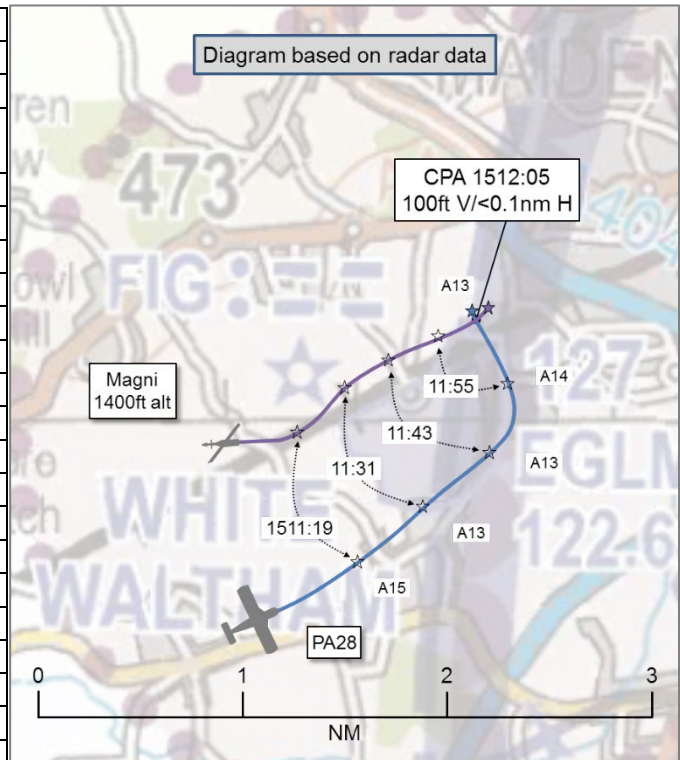


AIRPROX REPORT No 2019022

Date: 06 Feb 2019 Time: 1512Z Position: 5131N 00046W Location: White Waltham – elev 127ft

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	Magni M24
Operator	Civ FW	Civ Helo
Airspace	White Waltham ATZ	White Waltham ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	AGCS
Provider	Waltham Radio	Waltham Radio
Altitude/FL	1300ft	1400ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White, blue	White
Lighting	Strobes, beacon	Strobes, landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1000ft	1200ft
Altimeter	QFE (1011hPa)	QFE (1010hPa)
Heading	250°	060°
Speed	85kt	75kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	30ft V/50m H	100ft V/30m H
Recorded	100ft V/<0.1nm H	



THE PA28 PILOT reports that he joined the circuit overhead at the prescribed height of 1200ft on the QFE and transmitted the appropriate call “overhead” the airfield. He positioned the aircraft about 100m abeam the end of the active runway, RW25 right. Before commencing a deadside descent, he and the pilot-qualified passenger, looked for any conflicting traffic. As none was visible, he called ‘deadside descending’ and started a descending left turn to align the aircraft parallel with the active runway. In the descent, at a height of about 1000ft, a white gyroplane suddenly appeared, passing above and to the right, in level flight, travelling in the opposite direction. Because it filled most of the right-hand side of the cockpit windshield, it seemed probable that the gyroplane was within 50m of their aircraft and possibly closer. He continued the descent to 800ft, crossed the upwind threshold of the runway, and completed a normal circuit to land. The PA28 pilot learnt, after landing, that the incident had been witnessed by the on-duty Ops Room staff. The PA28 pilot was not clear whether gyroplanes were classified as helicopters for ATC purposes. If so, the pilot would have been expected to adhere to Pooley’s plate instructions for White Waltham which state that “helicopters should arrive/depart low level avoiding fixed wing circuit”. If a gyroplane is classified as a fixed-wing aircraft, then the pilot had erroneously adopted the wrong circuit direction, possibly related to misunderstanding the A/G information "Runway 25 right in use, with a left-hand circuit".

He assessed the risk of collision as ‘High’.

THE MAGNI PILOT reports that he had confirmed his intention to join overhead at 1200ft aal. Because he was unfamiliar with the airfield, he was concentrating on joining the circuit correctly and, at one point, was slightly disorientated so he made a radio call stating that he was going to depart the circuit and make another attempt to join. He did not recall hearing any radio calls from the conflicting aircraft. As he started a left turn to depart the circuit he identified his position as close to the threshold of RW25 and, at the same time, saw the other aircraft to his right and slightly lower in a left-hand turn. It appeared that they were both joining overhead for RW25. However, as he had not heard any radio calls, he was

not expecting to see another aircraft in that location so wasn't specifically looking for traffic in that area. The Magni pilot noted that his slight disorientation and unfamiliarity with the airfield could have led to him missing the radio calls from the other aircraft which, had he heard them, would have alerted him to a possible conflict.

He assessed the risk of collision as 'Low'.

THE WHITE WALTHAM A/G OPERATOR reports that the gyrocopter pilot phoned for PPR earlier in the day and was told that they were using '25-right with a left-hand circuit'. He asked for an explanation which was given as: "We now have 2 runways in the direction of 25, 25-left and 25-right. 25-left, which isn't currently in use will serve as a shorter relief runway to 25-right and 25-right being the main runway 25 that we've always had. Both runways are clearly indicated and have a left-hand circuit". The pilot seemed to understand. When the gyrocopter pilot called up for joining instructions, he was told that they were using '25-right with a left-hand circuit'. About a minute or so later, he called again asking for clarification on the runways, to which he was given a concise version of the description above. He replied: 'Thank you for the clarification'. The PA28 pilot then called up for rejoin and was given the same runway and QFE as the gyrocopter pilot. When the PA28 pilot called 'overhead', the gyrocopter pilot requested to 'descend deadside'. The A/G Operator replied: 'We're air/ground only, keep a good look out'. As he was replying he looked out and it appeared as though the gyrocopter had been tracking the opposite heading of 25, above the runway, and had requested to join the deadside when overhead the 25 numbers. It was at this point that the A/G Operator saw the PA28 crossing over the 25 numbers to descend on the deadside and taking evasive action to avoid the gyrocopter.

Factual Background

The weather at Heathrow was recorded as follows:

METAR COR EGLL 061520Z AUTO 22009KT 180V250 9999 FEW025 SCT031 11/06 Q1016 NOSIG=

Analysis and Investigation

UKAB Secretariat

The PA28 and Magni pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. 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 operation².

Summary

An Airprox was reported when a PA28 and a Magni M24 flew into proximity at White Waltham airfield at 1512hrs on Wednesday 6th February 2019. Both pilots were operating under VFR in VMC, both in receipt of an Air Ground Communication Service from Waltham Radio.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the A/G Operator involved. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

Members first discussed the Magni pilot's flight and agreed that he had made every effort to ensure a trouble-free arrival at White Waltham by phoning ahead for airfield information. Unfortunately, it subsequently transpired that his grasp of the airfield procedures was perhaps not complete. In

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

attempting to fly to the overhead he had instead routed slightly north of the aerodrome (**CF1**), which may not normally have been an issue as he manoeuvred to commence his overhead join but, on this occasion, placed him into conflict with the PA28 (**CF2**) that was joining from the southwest with the aerodrome on his left. The nature of an AGCS is such that neither pilot was given Traffic Information on the other (**CF3**), although their respective radio transmissions were there to be heard and for each pilot to use to build their SA. No doubt somewhat flustered by his lack of understanding of the join, it is a well-known human factor that hearing can be one of the first senses to deteriorate, the Board agreed that a combination of the Magni pilot not assimilating the PA28 pilot's transmissions (**CF4**) and him being north of the aerodrome had resulted in him coming into conflict with the PA28 that was conducting a normal overhead join iaw White Waltham procedures (**CF5**). Recognising that he was now confused, the Magni pilot sensibly decided to depart the overhead and rejoin again once he had regained his composure but, unfortunately, the remaining barrier of see-and-avoid also did not function for either pilot until after the point at which either of them could have materially increased the separation (**CF6**). Notwithstanding local airspace restrictions, and accepting that the White Waltham overhead join is lower than is normally the case, members commented that this incident highlighted the need for pilots to remain vigilant during overhead joins in the understanding that others might also be routing to the overhead from any direction as they marshalled themselves for the procedure. Members also commented that joining pilots should approach the overhead by keeping the airfield visible on the same side as their intended circuit direction, thereby helping to avoid conflict with aircraft joining overhead from the liveside. This consideration was especially important given the restricted field of view of many aircraft, especially when descending deadside and turning 'belly up' to traffic joining from the deadside.

Noting that, ultimately, neither pilot had materially contributed to the avoidance of the collision, the Board discussed whether the risk was such that separation had been reduced to the bare minimum (risk Category A), or whether the circumstances had been such that safety had been much reduced below the norm (risk Category B). After much debate, and following a vote being taken by the Chair, a small majority was in favour of the latter case.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
Flight Elements			
• Tactical Planning and Execution			
1	Human Factors	• Incorrect Decision/Plan	Incorrect or ineffective execution
2	Human Factors	• Aircraft Navigation	Did not avoid pattern of traffic already formed
• Situational Awareness of the Conflicting Aircraft and Action			
3	Contextual	• Situational Awareness and Sensory Events	Pilot had no, or only generic, Situational Awareness
4	Human Factors	• Understanding/Comprehension	Pilot did not assimilate conflict information
5	Human Factors	• Monitoring of Other Aircraft	Pilot did not sufficiently integrate with the other aircraft
• See and Avoid			
6	Human Factors	• Monitoring of Other Aircraft	Non-sighting by one or both pilots

Degree of Risk: B.

Recommendation: Nil.

Safety Barrier Assessment³

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

Ground Elements:

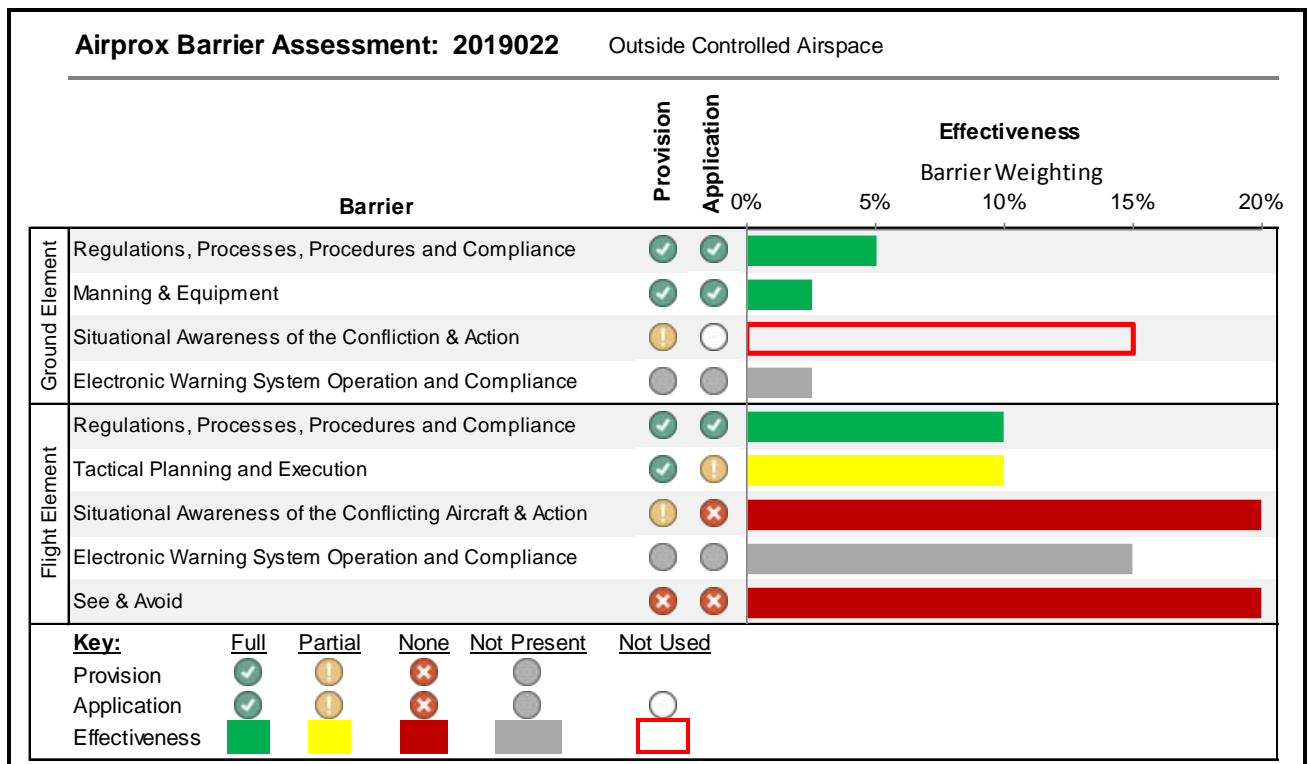
Situational Awareness of the Confliction and Action were assessed as **not used** because an AGCS does not provide SA to pilots, other than relaying other pilots' radio calls.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the Magni overhead join was displaced to the north of the airfield, largely due to the confusion of its pilot.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot was aware of the other's converging flight path until visually sighted.

See and Avoid were assessed as **ineffective** because neither pilot saw the other in time to materially affect separation at CPA.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).