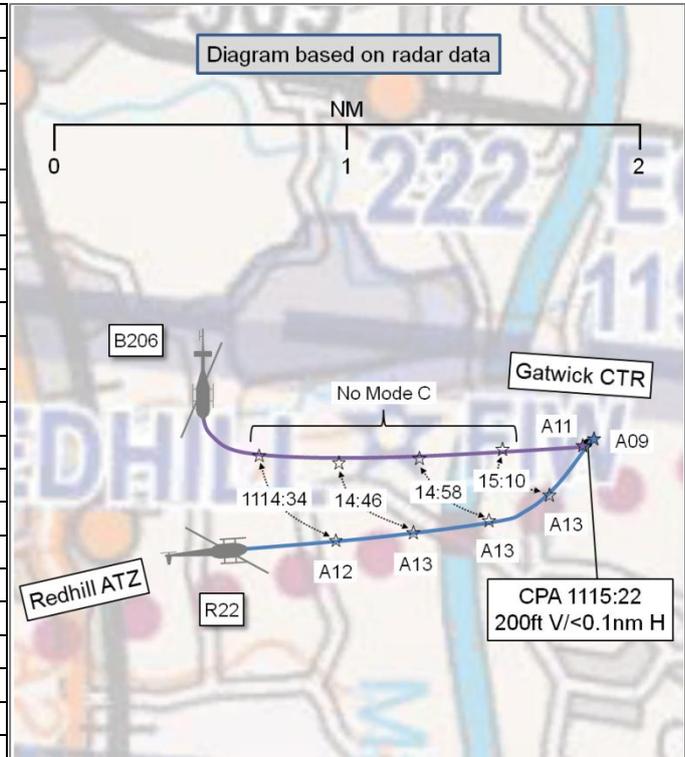


AIRPROX REPORT No 2015035

Date: 11 Apr 2015 Time: 1115Z Position: 5112N 00008W Location: Redhill (Saturday)

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Robinson R22	B206 JetRanger
Operator	Civ Trg	Civ Comm
Airspace	Redhill ATZ/ Gatwick CTR	Redhill ATZ/ Gatwick CTR
Class	D	D
Rules	VFR	VFR
Service	Aerodrome	Aerodrome
Provider	Redhill TWR	Redhill TWR
Altitude/FL	1200ft	1200ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue/white	Red/cream
Lighting	HISL, Nav	Nav
Conditions	VMC	VMC
Visibility	50km	>10km
Altitude/FL	1200ft	1200
Altimeter	QNH (1017hPa)	QNH (1025hPa)
Heading	360°	070°
Speed	70kt	60kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/100m H	30ft V/50m H
Recorded	200ft V/<0.1nm H	



THE R22 PILOT reports instructing a student, approaching the midpoint of the downwind leg. He received a radio call from ATC indicating that a helicopter would be overtaking (to his right) and departing the circuit. On completion of the downwind leg, the student began a turn on to base, maintaining 1200ft in order to prepare for a practice engine-off landing to a designated area on the aerodrome. As the turn to base leg was completed, the pilot observed the JetRanger rapidly approaching on the left and at the same height as his own aircraft. He immediately took control from the student and initiated a steep right turn to avoid the oncoming helicopter, which he believed to be within a couple of seconds of colliding with him. On completion of a 360° turn, to position back to the base leg, the other helicopter appeared to have made ‘no move’ nor ‘changed its profile’ in any way.

He assessed the risk of collision as ‘High’.

THE B206 PILOT reports downwind at 1200ft. He heard a call from ‘a trainer in the circuit’ but did not recall the details. He heard ATC say ‘you may be caught by a Jetranger’ but he could not see another aircraft. He then caught sight of the R22, crossing his flight path from right to left in a descent, and made a small right cyclic input. The R22 pilot called to say he was close to the Jetranger, or words to that effect, and the B206 pilot continued in the circuit to land.

He assessed the risk of collision as ‘Medium’.

THE REDHILL TOWER CONTROLLER reports the airfield was operating on RW26 with a right-hand circuit for fixed-wing aircraft, with ‘active control’, and a RW26/‘helistrip’ left-hand circuit for helicopters, with ‘passive control’.¹ The R22 pilot was cleared for departure into the 26 left-hand

¹ Passive control relies on the pilots taking responsibility for their own integration within the visual circuit.

circuit 'during airfield training detail', followed by the cleared departure of the B206 into the 26 left-hand circuit, carrying out a 5 minute pleasure flight. Both helicopters established onto the downwind leg with the B206 pilot following the R22, and visually closer/tighter to the aerodrome than the R22. The R22 pilot was advised that the faster B206 may overtake on the left side. Some moments later, the R22 pilot advised of the close proximity of the B206 when turning left base. The B206 pilot later reported that the R22 was in sight.

Factual Background

The weather at Gatwick was recorded as follows:

METAR EGKK 111120Z 30015KT 9999 FEW032 12/05 Q1018

Analysis and Investigation

CAA ATSI

The R22 pilot was operating in the Redhill RW26 helicopter circuit, south of the airfield. Redhill operate a system of 'passive control' in the helicopter circuit, and pilots are required to obtain a briefing from ATC prior to flying in the helicopter circuit. The B206 pilot did not obtain a briefing prior to operating in the circuit. The B206 became airborne in the RW26 left-hand circuit, and the Redhill Tower controller informed the R22 pilot that they might be 'overtaken on their left-hand side by the Jetranger'. The R22 pilot reported that they were visual. The R22 pilot subsequently reported to Redhill Tower that the B206 got very close. The B206 pilot reported that when the Tower controller passed Traffic Information to the R22 he could not see the R22. He then saw the R22 pass from right to left in the descent, and assessed the risk of collision as medium. The R22 pilot stated that he received a call from Redhill Tower that the B206 would be overtaking to his right (this was not stated on the RT) and departing the circuit. The R22 pilot stated that as the turn to base leg was completed he saw the B206 approaching his port side at the same level. The R22 pilot took control of the helicopter from his student and initiated a steep right turn to avoid. The ATSU advised that Traffic Information would normally be provided to each pilot about the other joining the circuit but it was noted that on this occasion Traffic Information was not passed to either pilot until just prior to the B206 passing the R22.

UKAB Secretariat

The R22 and B206 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard². 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 operation³.

Summary

An Airprox was reported when a Robinson R22 and a B206 Jetranger flew into proximity at 1115 on Saturday 11th April 2015. Both pilots were operating under VFR in VMC in the Class D airspace of the Redhill ATZ in receipt of an Aerodrome Control Service from Redhill Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and a report from the appropriate ATC authority.

The Board first considered the pilots' actions. The R22 pilot was instructing a student in the RW26LH 'passive' visual circuit and had recalled Traffic Information on a helicopter which would overtake on

² SERA.3205 Proximity.

³ SERA.3225 Operation on and in the Vicinity of an Aerodrome.

his right to depart the visual circuit. The Board noted that he then saw the B206 on the left, at a late stage, whilst completing his left turn onto base leg, and that he perceived the proximity of the B206 was such that he needed to take control from the student in order to make an avoiding action turn. For his part, the Board observed that the B206 pilot was conducting a pleasure flight, also in the RW26LH 'passive' visual circuit, and noted that he recalled that there was other traffic in the circuit, conducting training, which had been told the B206 might 'catch up'. Members noted that the B206 pilot only saw the R22 as it crossed ahead of him, at an estimated range of 50m with 30ft vertical separation, wherein he applied a 'small right cyclic input' to avoid it.

Considering next the Tower controller's actions, the Board observed that he had passed Traffic Information to both pilots and was no doubt operating under the reasonable assumption that both pilots were aware of their collision avoidance and integration requirements under the 'passive' procedures for the left-hand visual circuit for RW26. They concluded that he had exceeded the requirements of the 'passive' procedures in attempting to ensure that both pilots had situational awareness of the other; that the R22 pilot had miss-assimilated his Traffic Information call that the B206 would pass on the left-hand side was unfortunate. That being said, given the performance differences between the aircraft, they wondered whether ATC could have reverted to a normal Aerodrome Control Service on detecting the likely conflict between the aircraft.

Some Board members pointed out that the investigation had indicated that the B206 pilot had not received a pre-flight briefing before flying in the 'passive circuit', which he was required to obtain. They wondered whether Redhill should operate a check system, whereby pilots would not be permitted to operate in the 'passive circuit' unless there was evidence that the pre-flight briefing had been completed. Helicopter members of the Board explained that the variation of helicopter approaches was such that full RT could often not be reasonably completed in a busy teaching environment, and that consequently many aerodromes operated a 'passive' helicopter circuit whereby RT calls were not made. They observed that this was not an unusual situation, and it was incumbent on the pilots to ensure they maintained sufficient situational awareness to operate safely with other aircraft in the circuit. Other members felt that, whilst this system normally functioned satisfactorily, in this case it had clearly not, and so its validity was questionable given that it relied on pilots having situational awareness that they might not have, and acting appropriately even when they did.

In the event, it was agreed that, by flying a smaller and faster pattern without visual contact with the traffic ahead, the B206 pilot had not conformed with the pattern of traffic already in the RW26LH pattern. As such, the Board determined that he had flown onto conflict with the R22. Each pilot saw the other at a late stage, and separation at CPA was such that some members felt that chance had played a major part in events. After some discussion, it was agreed that, although the sightings were late, each pilot had had the opportunity to increase separation to some degree but that safety margins had been much reduced below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The B206 pilot flew into conflict with the R22 ahead in the visual circuit.

Degree of Risk: B.