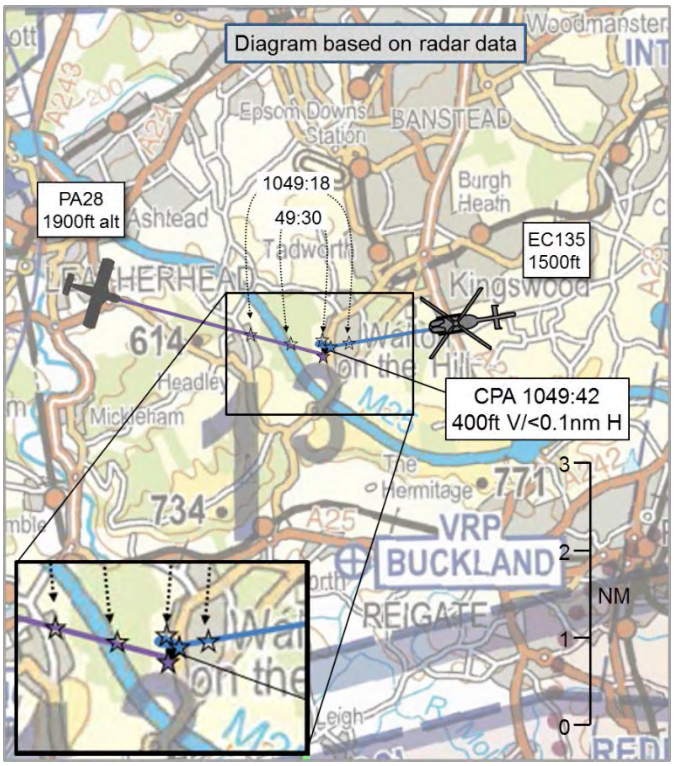
AIRPROX REPORT No 2018111

Date: 23 May 2018 Time: 1045Z Position: 5116N 00015W Location: 1.5nm NW Reigate

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	PA28
Operator	NPAS	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	IFR
Service	Basic	Basic
Provider	Redhill	Farnborough
Altitude/FL	1500ft	1900ft
Transponder	A, C, S	A, C
Reported		
Colours	Blue, Yellow	Blue, White
Lighting	Strobes, Nav, HISLs	Strobes
Conditions	VMC	IMC
Visibility	15km	1km
Altitude/FL	1200ft	1900ft
Altimeter	QNH	NK
Heading	090°	090°
Speed	40kt	120kt
ACAS/TAS	TCAS I (U/S)	Not fitted
Alert	None	N/A
Separation		
Reported	100ft V/0m H	600ft V
Recorded	400ft V/0.1nm H	



THE EC135 PILOT reports that they were conducting a training serial to locate a vehicle near Reigate. They were in very slow forward-flight at a medium height and flying straight-and-level. They were being provided with a Basic Service from Redhill because a Traffic Service from Farnborough West was not viable due to their height and proximity to Redhill aerodrome. A recent and accurate position report had been relayed by them and acknowledged by Redhill. The PA28 was first spotted directly overhead, 100ft above, heading in the same direction at cruise speed. It was thought that the PA28 was not receiving a service from Redhill. No avoiding action was taken because the PA28 had approached from the 6 o'clock and, by the time it was seen, was heading away. The TCAS on-board was thought to be defective at the time, no warning was received. He assessed the risk of collision as high because of the proximity, flight profile and the fact that there were no warning cues (visual, ATS or TCAS).

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports that due to the weather conditions he was flying on instruments. His flying companion, also a pilot, was sitting in the front right-hand seat, saw the helicopter first, and alerted the pilot. The pilot did not think that there was any threat from the helicopter, but for good airmanship he turned right. Although he was on a Traffic Service (he believed) from Farnborough, he was not given any Traffic Information.

He assessed the risk of collision as 'None'.

THE FARNBOROUGH CONTROLLER reports working LARS North and East bandboxed and was busy conducting a handover when the LARS West controller sent a flight strip with details of the PA28. The PA28 pilot called and was asked to standby whilst the other handover was completed. Once the handover was completed, the PA28 was identified and offered a Basic Service. The pilot requested a

Traffic Service and this was provided 4nm south-west of Biggin Hill [about 8nm east of the incident location]. Approx. 3 mins later, Redhill tower called an assistant and said that a Police Helicopter in the Reigate area had reported an Airprox. The track of the PA28 looked like it was the aircraft involved and there was nothing else in the vicinity; however, it had not been identified until east of the helicopter's position.

Factual Background

The weather at Gatwick was recorded as follows:

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EGKK 231020Z 01014KT 330V030 9999 FEW024 17/10 Q1022=
EGKK 231050Z 01015KT CAVOK 17/10 Q1022=
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Analysis and Investigation

CAA ATSI

At 1044:38, the PA28 pilot established communications with the Farnborough LARS controller requesting a Traffic Service. The frequency was busy and the controller instructed the pilot to standby. At 1045:44 the controller instructed the pilot to pass their message. The pilot reported their type, altitude, position and route and requested a Traffic Service. The controller instructed the pilot to select SSR code 0437 and a Basic Service was agreed. At 1046:20, the radar displayed the PA28 SSR code as 0437 and the PA28 and EC135 were 10.4nm apart.

At 1048:48 (Figure 1), the EC135 turned to track west. The EC135 turned again to track east and CPA subsequently occurred at 1049:42 (Figure 2) with the radar indicating 0.1nm and 400ft between the aircraft.

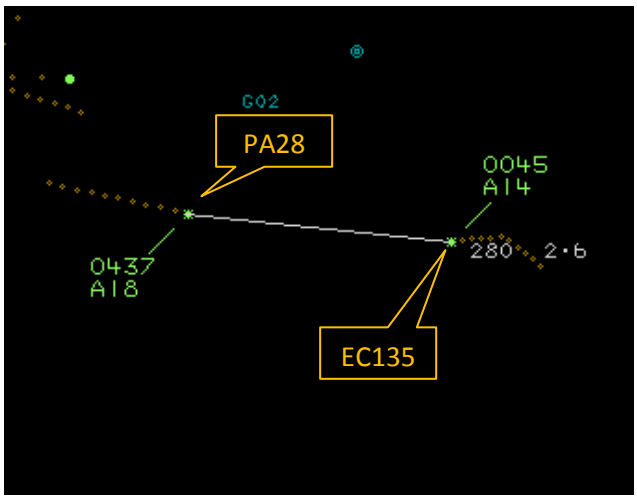

Figure 1 – 1048:48

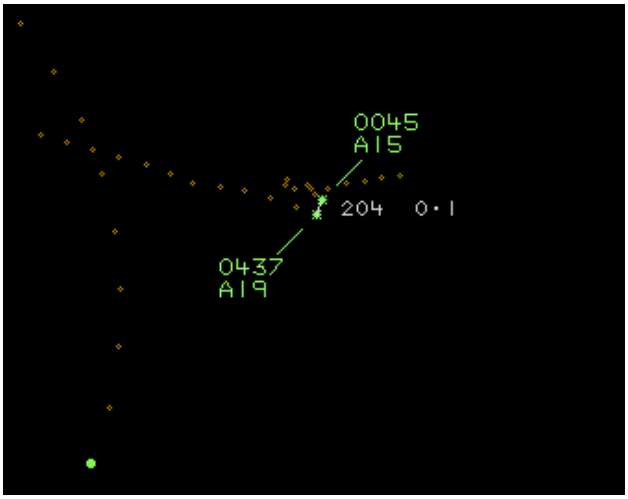

Figure 2 – 1049:42

At the time of the Airprox the PA28 was receiving a Basic Service from the Farnborough LARS controller. The EC135 was receiving a Basic Service from the Redhill controller. ATSI did not have access to the recordings from Redhill. Redhill is a none radar unit and therefore the Redhill controller had no way of knowing about the PA28.

Under the terms of a Basic Service CAP 774 states;

Whether Traffic Information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller."

The Airprox took place in Class G airspace and therefore separation between aircraft is ultimately the responsibility of the pilots.

UKAB Secretariat

The EC135 and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[1]. If the incident geometry is considered as overtaking then the EC135 pilot had right of way and the PA28 pilot was required to keep out of the way of the other aircraft by altering course to the right[2].

Comments

NPAS

This Airprox serves as a timely reminder that aircraft in the vicinity may be operating under different services from a variety of providers so maintaining an effective lookout is incumbent on all parties and especially in areas of heightened traffic concentration. When planning training, the likely traffic environment should also be factored in to avoid unnecessarily increasing risk by operating near choke points etc.

Summary

An Airprox was reported when an EC135 and a PA28 flew into proximity near Reigate at 1045hrs on Wednesday 23rd May 2018. The EC135 pilot was operating under VFR in VMC and in receipt of a Basic Service from Redhill; the PA28 pilot reported being IFR and IMC, had asked for and thought he was in receipt of a Traffic Service from Farnborough, but was in fact in receipt of a Basic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the EC135 pilot and noted that he was conducting a training serial to locate a vehicle. As such, they thought that he probably had a high cockpit workload and may have been to some extent task-focused. Noting that the PA28 was on a constant bearing but was probably partially obscured by cloud, the Board could understand why the EC135 pilot may not have seen it despite it approaching from ahead for some time before the EC135 turned 180° and it passed overhead from behind. Members commented that it was unfortunate that the EC135 TCAS was not working because that probably would have provided the pilot with vital traffic information; given their potential vulnerability during tasks, some members wondered whether TCAS was an MEL no-go item at least for NPAS training operations. [UKAB Secretariat note: it has since been confirmed that an unserviceable TCAS is a permitted defect by the operator]. Other members wondered whether the EC135 pilot would have been better served by calling Farnborough, in which case he would have been on the same frequency as the PA28 and might have obtained situational awareness from hearing the PA28 pilot's calls. However, they acknowledged that it was a finely balanced decision between doing so to gain situational awareness of transiting traffic versus listening out with Redhill to hear traffic arriving and departing from them; on balance pilot members thought that the latter had probably been the correct choice if the EC135 pilot had been constrained to operating in that location.

The PA28 pilot had asked for a Traffic Service because he was in cloud but, after having being transferred from one Farnborough controller to another he was in fact only given a Basic Service. The RT transcript indicated that when the Farnborough controller had identified the PA28 and put him under a Basic Service, the pilot had read back the type of service correctly, so members wondered whether he had fully assimilated that information and that he was not going to receive Traffic Information. Although Farnborough were very busy at the time, the controller had not given a reason for refusing the Traffic Service, and the PA28 pilot could have reminded the controller that they had asked for a

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(3) Overtaking.

different type of service if it was thought that the controller had mistakenly provided the wrong one. Having been given a Basic Service but being IMC, some members opined that the PA28 pilot might have considered descending to try and get VMC below the cloud. However, it was recognised that Farnborough would not provide a radar service below 1500ft in that area, and so he may have felt he was better placed remaining at 1900ft in case they could give him a radar service later. It was also noted that the PA28 was not fitted with a CWS, which would have provided a warning about the EC135, who was squawking and displaying Mode C. If the PA28 pilot regularly transited in IMC the Board recommended that he consider purchasing one of the increasingly affordable CWS in order to augment his situational awareness about other aircraft if was faced with similar circumstances in future. As it transpired, there was a fortuitous gap in the cloud as the 2 aircraft came into proximity so the PA28 pilot saw the EC135 and was able to assess that there was sufficient separation between them.

The Board then spent some time discussing the actions of the Farnborough controller. The NATS representative informed the Board that the LARS West controller had 17 aircraft on frequency (of which one was under a Traffic Service and the rest a Basic Service), and that his RT loading was at 95%. The Board recognised that this was extremely busy and that the controller was unlikely to have had the capacity to maintain radar monitoring on all the Basic Service aircraft. Controller members reminded the Board that he was not required to pass Traffic Information to pilots receiving a Basic Service unless he happened to detect a risk of collision. In this respect, even if he had been looking in that part of his radar display and had seen the 2 aircraft squawks, with a Mode C separation of 400ft between them it was unlikely he would have deemed this enough of a collision risk to call it. There then followed a long discussion about the role and funding of LARS controllers in the UK. It was pointed out that only one of Farnborough's LARS positions was funded by government; the other two were funded by NATS in order to protect the TMA. Expectations as to LARS availability and service levels needed to be formed in light of that resource limitation to recognise that there was no mandate for Farnborough to keep opening more radar positions to deal with the extra traffic. Notwithstanding, the Board agreed that a contributory factor to this incident had been that the controller had not been able to provide the requested level of service to the PA28 pilot because of the intensity of traffic he was dealing with. Following on from this, some members wondered whether the controller should have told the PA28 pilot that he would not be providing a Traffic Service due to workload, but were told that CAP774 did not require a controller to do so; nevertheless, controlling members thought that in doing so this left pilots in no doubt as to the type of service they were under and why it had changed.

In determining the cause of the Airprox, the Board agreed that the incident was probably best described as a conflict in Class G resolved by the PA28 pilot, with a contributory factors that the Farnborough controller had not been able to provide the requested Traffic Service due to traffic intensity. Assessment of the collision risk was then debated, with some members opining that at 400ft separation this could be considered as a benign event, Category E. Others disagreed, citing the fact that safety was reduced because the PA28 was IMC at the time and that it had been only a fortuitous gap in the clouds that had enabled the pilots to see each other's aircraft. The latter view prevailed and the risk was assessed as Category C, safety had been degraded but there had been no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the PA28 pilot.

Contributory Factor: The Farnborough controller could not provide the requested Traffic Service due to traffic intensity.

Degree of Risk: C.

Safety Barrier Assessment[3]

[3] 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:

ANSP:

Manning and Equipment were assessed as **partially effective** because traffic intensity meant that the controller was not able to offer a Traffic Service.

Flight Crew:

Tactical Planning was assessed as **partially effective** because the PA28 pilot either did not assimilate that he was not receiving a Traffic Service, or did not modify his plan when so informed.

Situational Awareness and Action were assessed as **ineffective** because neither pilot had any warning about the other aircraft.

Warning System Operation and Compliance were assessed as **ineffective** because the TCAS on the EC135 did not alert.

See and Avoid were assessed as **partially effective** because the PA28 pilot was IMC and only able to achieve a late sighting in a gap in the clouds.