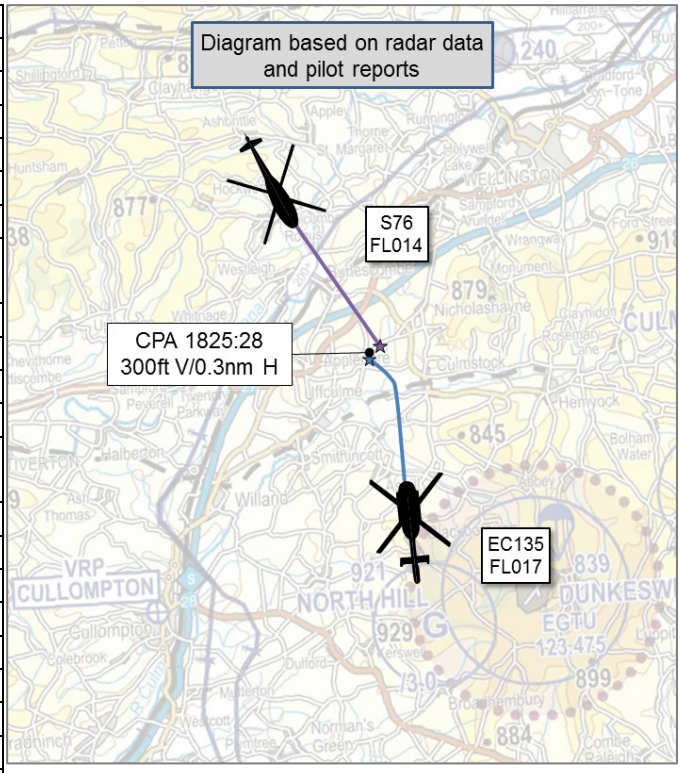
AIRPROX REPORT No 2018315

Date: 10 Dec 2018 Time: 1825Z Position: 5055N 00318W Location: 4nm NW Dunkeswell

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	S76
Operator	NPAS	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Exeter	London Information
Altitude/FL	FL017	FL014
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue, Yellow	White, Blue
Lighting	HISL, Nav, Landing	Strobe, Nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2000ft	1500ft
Altimeter	NK (1028hPa)	QNH (1028hPa)
Heading	350°	135°
Speed	120kt	130kt
ACAS/TAS	TCAS I	TAS
Alert	TA	TA
Separation		
Reported	200ft V/250m H	200ft V/1nm H
Recorded	300ft V/0.3nm H	



THE EC135 PILOT reports that he was approximately 5nm NW of Dunkeswell, returning from a task near Exeter. Exeter radar reported a contact north of his location. A strobe was sighted, and a contact appeared on TCAS showing around 5nm and 200ft below. As a crew, they monitored the aircraft and the pilot briefed that, given its position, he would turn away to the left because Exeter felt it might have been routing to land at Dunkeswell. At 3nm the aircraft had taken no action to avoid the EC135, He turned on both landing lamps and turned 45° to the left to increase separation. The aircraft passed approximately 200ft below and around 250m down his right-hand side. At no point did he, or the crew, feel that the aircraft spotted him, it certainly took no action to avoid them, and did not give any indication that the other pilot had seen him. He radioed Exeter Radar but, due to their range, did not hear a response. He then contacted Cardiff Radar and explained he would call them on the landline once he had landed. Cardiff explained over the phone that the aircraft was an S76 out of a field site and into Dunkeswell, and was airborne for around 10mins total. It was in receipt of a Basic Service from London Info, and its registration was supplied.

He assessed the risk of collision as 'Medium'.

THE S76 PILOT reports that the other helicopter was observed from 8nm away and that he was on a constant heading throughout inbound to Dunkeswell.

He assessed the risk of collision as 'Low'.

THE EXETER CONTROLLER reports that at about 1821 the EC135, which had been operating 2- 4nm south of Exeter on a Basic Service, set course to the north to return to St Athan. As the EC135 was approaching west-abeam of Exeter he passed Traffic Information to the EC135 pilot on a contact to his

north-northwest, range about 5nm indicating 1800ft and tracking towards Dunkeswell, indicating 400ft below. The EC135 pilot acknowledged this information. After the aircraft passed each other the EC135 pilot asked if he knew the identity of the other aircraft as it had not altered course. He advised the EC135 pilot that the other aircraft was wearing a London Information squawk. The EC135 pilot said that he had altered course to avoid the other aircraft. He then continued to St Athan.

Factual Background

The weather at Exeter was recorded as follows:

```
METAR EGTE 101820Z 16003KT 9999 FEW020 SCT037 07/06 Q1028
```

Analysis and Investigation

UKAB Secretariat

The EC135 and S76 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 converging then the S76 pilot was required to give way to the EC135[2].

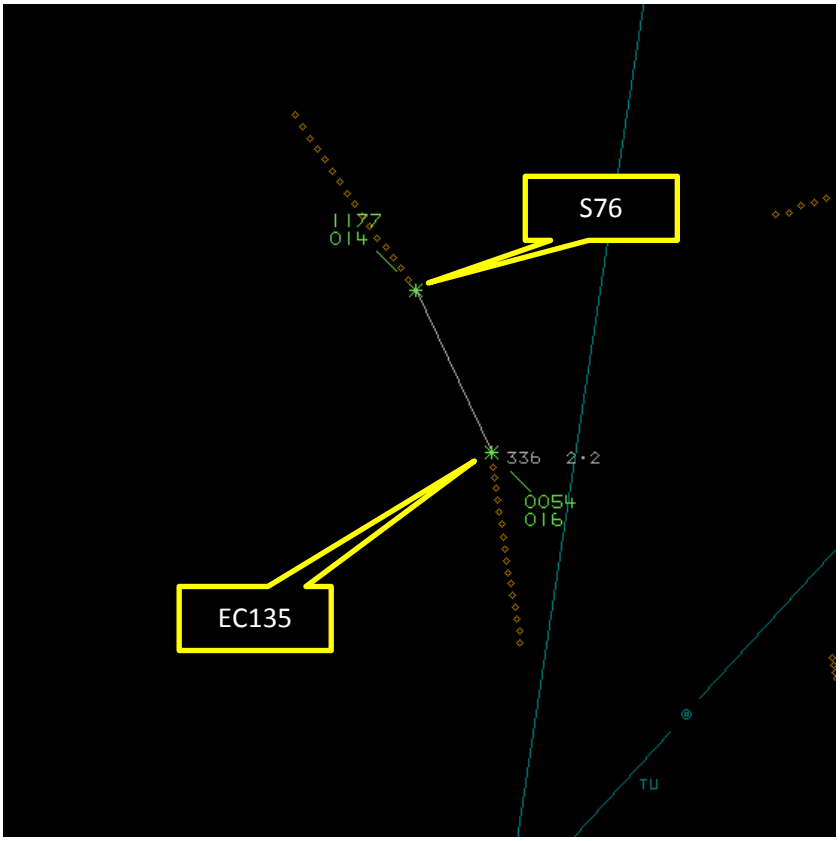


Figure 1: 1824:59

Summary

An Airprox was reported when an EC135 and a S76 flew into proximity NW of Dunkeswell at 1825hrs on Monday 10th December 2018. Both pilots were operating under VFR in VMC, the EC135 pilot in receipt of a Basic Service from Exeter and the S76 pilot in receipt of a Basic Service from London Information.

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

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and reports from the air traffic controllers involved.

The Board began by looking at the actions of the Exeter controller. Even though the EC135 pilot was under only a Basic Service and there was no requirement to monitor the flight, the Exeter controller had passed Traffic Information to the EC135 pilot on the S76 which served to increase the EC135 pilot's SA. The Board commended the controller for his vigilance and pro-active controlling.

The Board then turned to the actions of the S76 pilot. He had been routing to land at Dunkeswell and had reported seeing the EC135 at 8nm. Although noting that at night that it can sometimes be difficult to discern closure geometry, members were unanimous in their opinion that it would have been prudent for the S76 pilot to have altered his course to ensure separation from the traffic that he could presumably see was converging from the right. Moreover, once they had closed to within a few miles, the S76 pilot could not have known the intentions of the EC135 pilot and should have ensured sufficient allowance for any unpredictable changes in flight path that might occur if the EC135 pilot had not seen him. Members also noted that the S76 pilot was in communication with London Information at the time and, accepting that initial radio coverage might not have extended to his departure site, GA and helicopter members agreed that the S76 pilot would have been better served by contacting Exeter for a suitable service even if this meant that he had to climb to gain contact.

The Board then turned to the actions of the EC135 pilot. He had seen the S76, had received warnings from his TCAS, and had received Traffic Information from Exeter. Helicopter pilots commented that although he had received Traffic Information whilst under a Basic Service, he too might have been better served by requesting a Traffic Service, and from transiting at a higher altitude to ensure radio coverage (accepting that the Exeter weather showed FEW at 2000ft and so the Board could not determine whether the cloud structure permitted a higher transit altitude). Ultimately, the Board noted that the EC135 pilot had maintained track and speed as they converged (as required under the Rules of the Air) but had acted in a timely and effective fashion when it became apparent that the S76 pilot had either not seen him or was not going to give way and resolve the conflict to his level of comfort.

The Board then looked at the cause and risk. They agreed that the S76 pilot was visual with the EC135 from 8nm but had not deviated from his track even though the EC135 was converging on his right. Given that it was night and that the S76 pilot could not have known the intentions of the EC135 even if he had judged that vertical separation was sufficient, the Board concluded that the cause of the incident was that the S76 pilot had flown into conflict with the EC135. Turning to the risk, members noted that both pilots were visual with the other aircraft at range, and that the EC135 pilot had turned to avoid the S76 in plenty of time. They were unanimous in agreeing that this turn had been timely and effective and so, although safety had been reduced, they determined that there had been no risk of collision; risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The S76 pilot flew into conflict with the EC135.

Degree of Risk: C.

Safety Barrier Assessment[3]

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

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

Flight Crew:

Regulations, Processes, Procedures, Instructions and Compliance were assessed as **ineffective** because the S76 pilot did not comply with SERA 3210 by giving way to the converging EC135 on his right.

Situational Awareness and Action were assessed as **ineffective** because although the S76 pilot had situational awareness through his TAS (and being visual with the EC135 at 8nm), he did not act to ensure sufficient separation at night against another aircraft with unknown intentions.