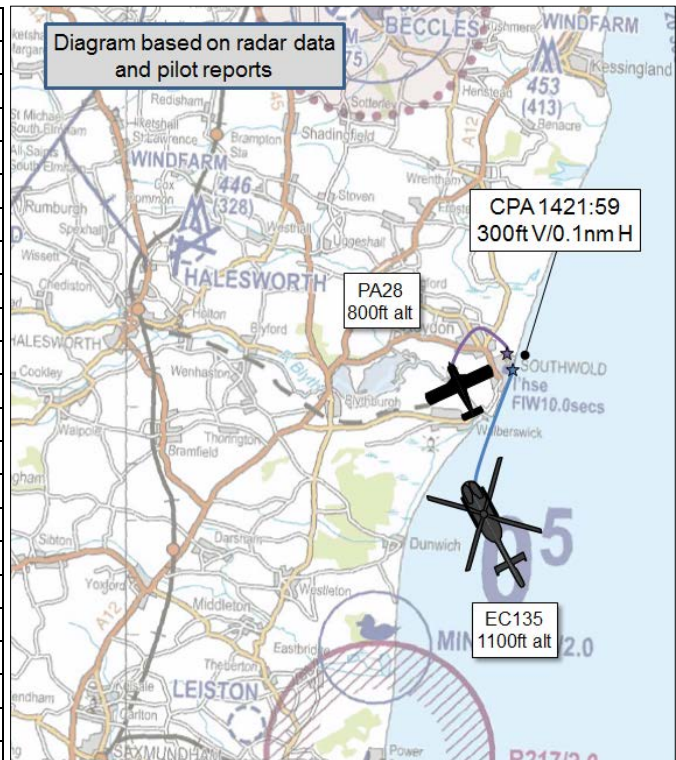


**AIRPROX REPORT No 2017054**

Date: 07 Apr 2017 Time: 1014Z Position: 5219N 00141E Location: East of Southwold

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	PA28
Operator	Civ Comm	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Wattisham	Norwich
Altitude/FL	F011	F008
Transponder	A, C	A, C, S
<b>Reported</b>		
Colours	Red	NR
Lighting	HISLs, Nav	NR
Conditions	VMC	VMC
Visibility	20km	8km
Altitude/FL	1500ft	1500ft
Altimeter	QNH (1027hPa)	QNH
Heading	010°	270°
Speed	120kt	100kt
ACAS/TAS	Not fitted	Not fitted
<b>Separation</b>		
Reported	200ft V/250m H	200-400m H
Recorded	300ft V/<0.1nm H	



**THE EC135 PILOT** reports that he was in level flight at 1500ft on a heading of 010° approximately 0.5nm off the coast of Southwold. He spotted an aircraft in the 10 o'clock position about 200ft below and with 200-300m lateral separation. It was a late spot due to the background of the town of Southwold, and it appeared to be turning right onto a southerly heading. He reported the incident to Wattisham ATC.

He assessed the risk of collision as 'Medium'.

**THE PA28 PILOT** reports that the time elapsed since the incident meant that he only had a hazy recollection of the exact sequence of events. He was flying over the Southwold area on a sightseeing flight. He was in a right-hand turn and the Norwich controller informed him about another aircraft in close proximity. When he looked for the traffic he saw the aircraft about 200-400m away. It all happened very quickly, it was only a matter of seconds before they passed each other, and he was in a right turn anyway so didn't take further avoiding action. Afterwards, he didn't dwell on the event, but instead concentrated on the rest of the flight. He noted that he was on the Norwich frequency and believed the other pilot was talking to Wattisham, he opined that had they both been on the same frequency the Airprox might have been avoided.

He assessed the risk of collision as 'None'.

**THE WATTISHAM CONTROLLER** reports that he was providing a Basic Service to an EC135 who was operating off-shore between Lowestoft and Great Gabbard windfarm. At 1016 the pilot called to report an Airprox with a white and maroon fixed-wing aircraft about 0.5nm off the coast. He described it as 200 ft below and 300m laterally. A Norwich squawk was observed in the vicinity.

He perceived the severity of the incident as 'Low'.

## Factual Background

The weather at Norwich was recorded as follows:

EGSH 070950Z 29007KT 9999 FEW020 BKN028 10/06 Q1027

## Analysis and Investigation

### CAA ATSI

The Airprox was reported by the pilot of an EC135 when it came into proximity with a PA28 in the vicinity of Southwold, Suffolk. The EC135 pilot was in receipt of a Basic Service from Wattisham radar. It was later established that the PA28 was receiving a Basic Service from Norwich radar but, because Norwich were not aware that an Airprox had been filed, no reporting action was taken.

The EC135 had first called Wattisham radar at 0936:00 and a Basic Service was agreed. The SSR code of 4502 was allocated. The EC135 was operating VFR and was routing from Lowestoft to the Great Gabbard Wind Farm approximately 30nm south of Lowestoft (Figure 1). The controller verified the level and requested that the EC135 pilot report letting down.

At 0949:33 the EC135 reported letting down at the wind-farm and that they would call again when lifting. At 0959:42 the EC135 pilot reported lifting from the wind-farm and returning to Lowestoft. The controller asked the pilot to report letting down at Lowestoft. At 1011:17 (Figure 3) the PA28 (code 7360) was observed taking up an orbit in the vicinity of Southwold, at approximately 1500ft (FL011 indicated). The PA28 had been following the coast southbound but carried out two orbits at this location. On completion of the second orbit CPA occurred.

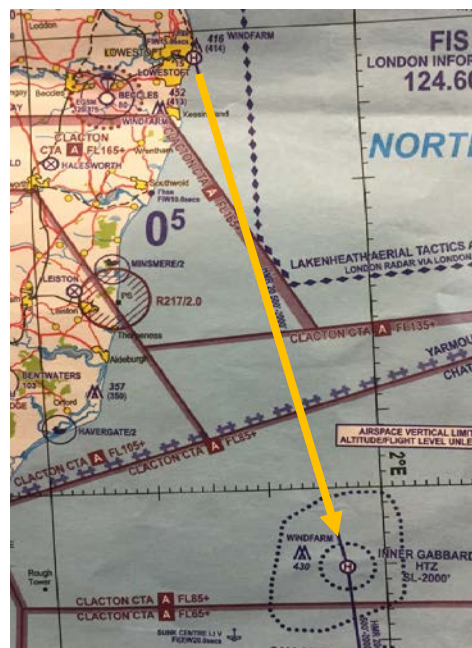


Figure 1: Map Depicting Wind Farm and Heli Route

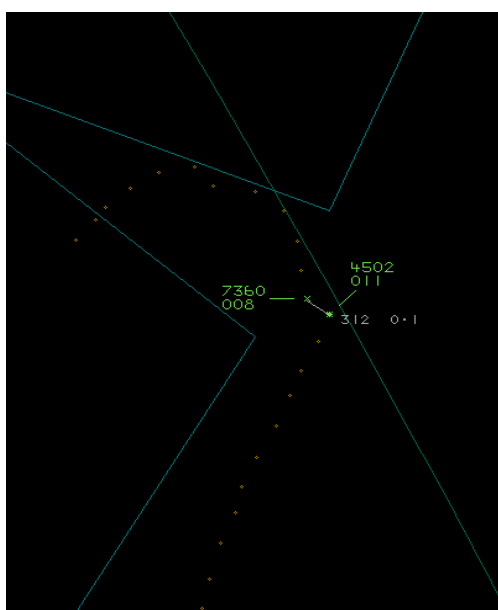


Figure 3 – Swanwick radar 1011:17

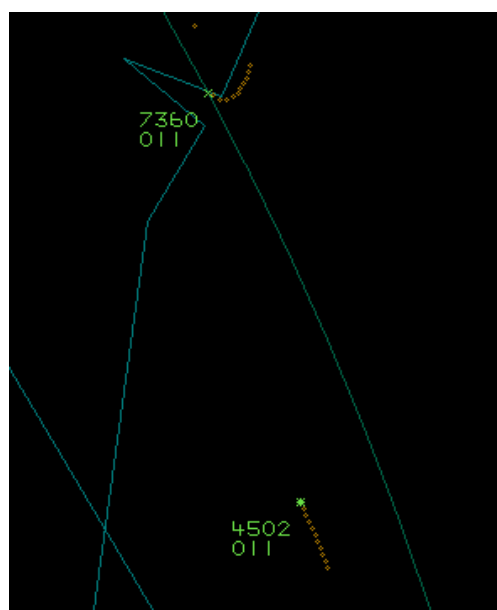


Figure 4 - CPA Swanwick radar 1015:02

CPA occurred at 1015:02 (Figure 4) with a lateral distance of 0.1nm and 300ft indicated between the aircraft. Under a Basic Service a controller is not required to monitor a flight and collision avoidance is the responsibility of the pilots involved. It is not known if Traffic Information was passed to the PA28 pilot but he later reported that he observed the EC135 approaching and tightened his turn. No Traffic Information was passed to the EC135 pilot about the PA28. Although the Wattisham frequency had been quite a few minutes before the Airprox, on the lead-up to the actual CPA there were two separate calls from other aircraft, one requesting re-joining clearance to Wattisham and another requiring a MATZ penetration. The second of these RTF exchanges was taking place when CPA occurred.

### **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<sup>1</sup>. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right<sup>2</sup>.

### **Summary**

An Airprox was reported when an EC135 and a PA28 flew into proximity at 1014 on Friday 7<sup>th</sup> April 2017. Both pilots were operating under VFR in VMC, the EC135 pilot in receipt of a Basic Service from Wattisham and the PA28 pilot in receipt of a Basic Service from Norwich.

### **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 Wattisham air traffic controller involved and reports from the appropriate ATC operating authorities.

The Board first looked at the actions of the EC135 pilot. Noting that he was receiving a Basic Service from Wattisham, some members wondered whether he would have been better served speaking to Norwich, and asking for a Traffic Service. Other members pointed out that the position of the Airprox was about 25nm from Norwich and therefore probably on the limit of their radar cover anyway. Notwithstanding, on a Basic Service, Wattisham were not required to give any Traffic Information and separation remained the pilot's responsibility. The Board had some discussion about whether the EC135 would have been fitted with a TCAS (the pilot had reported that it wasn't), and without such equipment on either aircraft, see-and-avoid was the main mitigation against mid-air collision in Class G airspace. Fortunately, the EC135 pilot had seen the PA28, albeit at a later stage than desirable, and assessed that because the other aircraft was turning away, avoiding action was not necessary.

Turning to the actions of the PA28 pilot, he was also receiving a Basic Service, this time from Norwich. The Norwich controller recognised the potential for conflict and gave Traffic Information to the PA28 pilot. The pilot was then able to look for the other traffic and, in so doing, saw the EC135 in time to assess that if he maintained his turn, he would keep clear. The Board commended the Norwich controller for his timely call given that the PA28 was under only a Basic Service. The GA member commented that the PA28 pilot had not reported whether his lights were illuminated or not, but he wished to remind pilots of the merits of flying with the landing light on, in order to assist other pilots' visual acquisition.

Finally, the Board discussed the cause of the Airprox and agreed that it had been a late sighting by both pilots. However, because the EC135 had deemed avoiding action not to be necessary, and the PA28 pilot had reported no risk of collision, the risk was assessed as Category C, safety had been degraded, but there had been no risk of collision.

---

<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3210 Right-of-way (c)(1) Approaching head-on.

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

Cause: A late sighting by both pilots.

Degree of Risk: C.

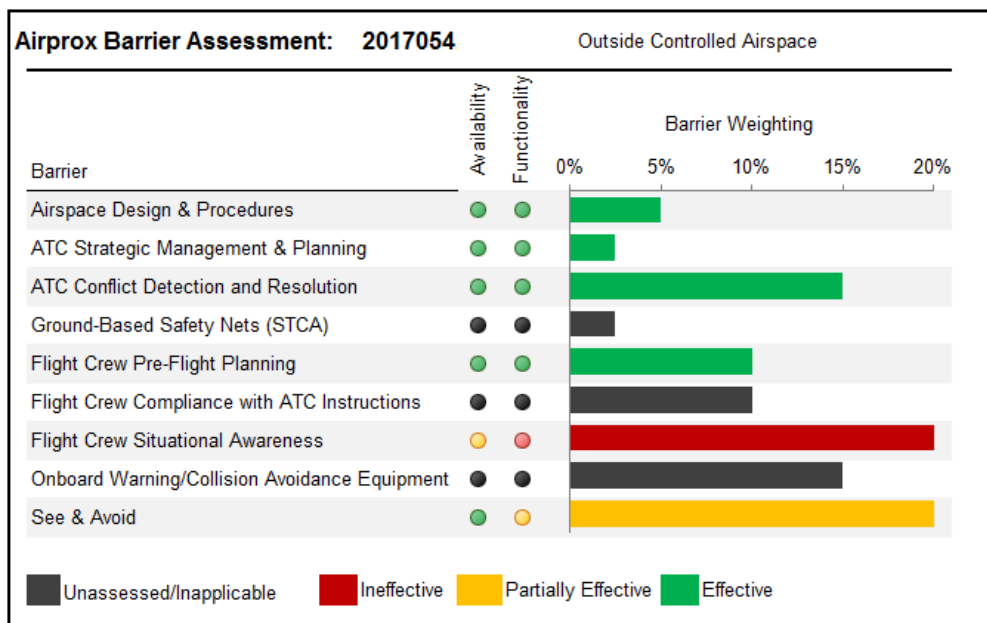
**Safety Barrier Assessment<sup>3</sup>**

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

**Flight Crew Situational Awareness** was assessed as **ineffective** because, effectively, neither pilot had knowledge of the other (the PA28 received Traffic Information from Norwich too late to be able to do anything more than just assess that they would miss each other).

**Onboard Warning/Collision Avoidance System** was assessed as **inapplicable** because neither aircraft was fitted with a CWS.

**See and Avoid** was assessed as **partially effective** because the PA28 pilot was able to assess that his right-hand turn would avoid the EC135.



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