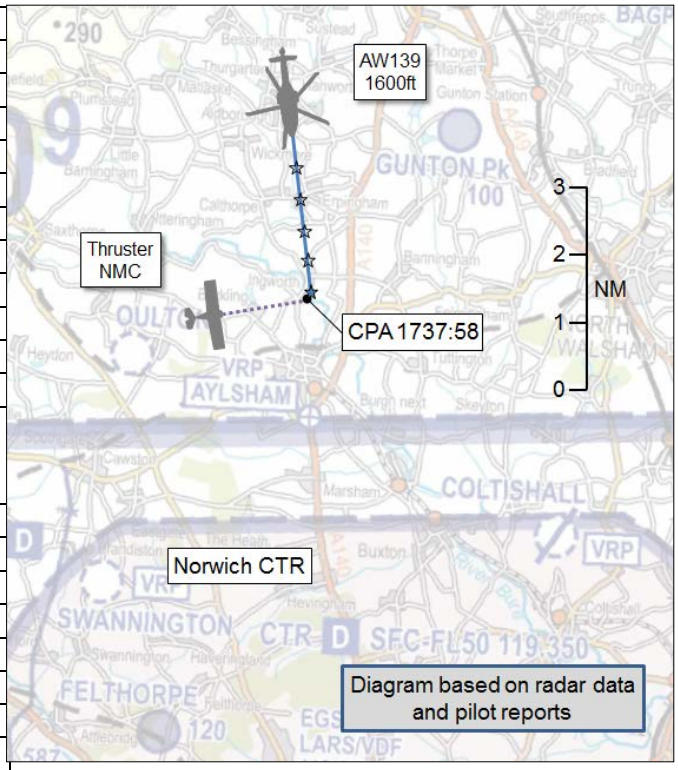
AIRPROX REPORT No 2017043

Date: 24 Mar 2017 Time: 1738Z Position: 5248N 00115E Location: 7.5nm N Norwich airport

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW139	T600
Operator	Civ Comm	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic	Basic
Provider	Norwich	Norwich
Altitude/FL	1600ft	NMC
Transponder	A,C,S	Not fitted
Reported		
Colours	Company	Yellow
Lighting	Strobe, anti-collision, position, landing	Tail strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	1600ft	1700ft
Altimeter	QNH	QNH
Heading	185°	~080°
Speed	140kt	60kt
ACAS/TAS	TCAS I	Not fitted
Alert	None	N/A
Separation		
Reported	<100m V/300m H	NK
Recorded	NK	



THE AW139 PILOT reports that just after approach checks were completed, the Pilot Flying noticed a small microlight in the one o'clock position within 1nm, at a similar level, flying towards them; he took avoiding action by descending and turning left. Shortly afterwards the pilot of the intruding traffic also took avoiding action and came within a few hundred metres of their aircraft. The recreational aircraft was not transponding but was in contact with ATC and reported flying at 1700ft. After the conflict, they resumed their flight path and level with no further incident. Radar reported no primary return. ATC had provided no information to the crew prior to the conflict, nor had the crew heard any position report beforehand. The aircraft was small, spotted late and was maintaining a constant bearing in the one o'clock position at right angles to track, hence turning to the left and descending was the safest option to avoid collision. Both aircraft were outside controlled airspace.

He assessed the risk of collision as 'High'.

THE THRUSTER T600 MICROLIGHT PILOT reports that, in his opinion, this was not an Airprox. At no time were either aircraft at risk of a collision. Even if no avoiding action had been taken the aircraft would not have collided but would have been undesirably close though. He chose not to fly at either 2000ft or 1600ft because he was aware that these altitudes are used by helicopter traffic. The incident occurred in Class G airspace. He was informed that ATC did not see him on radar until after he had made a slight left turn to increase separation; he did not climb. His first sighting of the AW139 was at about 0.5-0.75nm, 150ft below his aircraft.

He assessed the risk of collision as 'None'.

THE NORWICH APPROACH RADAR CONTROLLER reports that he was providing a Traffic Service to the pilot of the AW139 helicopter, who was inbound to Norwich from the North. Whilst outside the Control Zone the pilot advised him that he was taking avoiding action against unknown traffic in the FIR. At this time nothing was visible on his radar. He asked the pilot to advise him when clear of traffic. A primary contact appeared shortly afterwards behind the AW139 and he thought that he told him of this. The pilot of a microlight (non-transponder) operating to the north of Norwich then called up and he believed that he said he had the helicopter visual. The AW139 pilot called ATC and he suggested he file an Airprox if he felt there had been a risk of collision.

Factual Background

The weather at Norwich was recorded as follows:

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EGSH 241720Z 05013KT CAVOK 08/04 Q1032 NOSIG=
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Analysis and Investigation

CAA ATSI

The AW139 pilot was returning to Norwich and at 1733:21 contacted Norwich Radar, advising that they were coasting-in at 1500ft and requesting a visual approach (Figure 1).

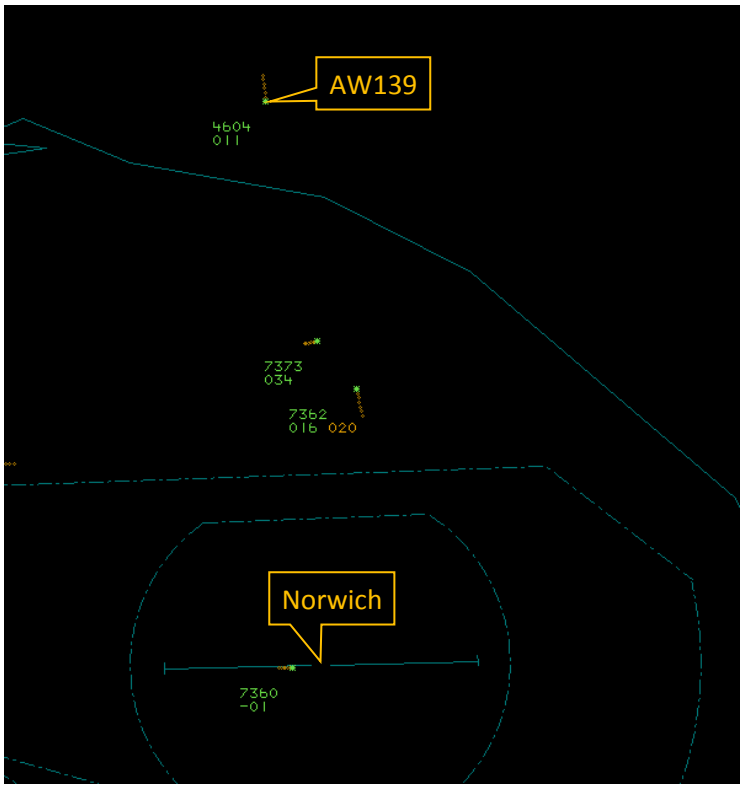


Figure 1 – 1733:21.

The Radar controller identified the AW139 on radar, a Traffic Service was agreed, and the pilot was requested to adjust to an altitude of 1600ft on the Norwich QNH. The T600 pilot had previously contacted Norwich Radar at 1725:27 and a Basic Service had been agreed. Intermittent radar contact with the aircraft believed to be the T600 was observed on the Norwich Radar until 1728:30. No further RT calls were made or radar contact observed with the T600 until the time of the reported Airprox.

At 1737:58 the AW139 pilot reported descending to avoid a light aircraft (Figure 2).

Figure 2 – Norwich Radar (callsigns removed) – 1737:58.

At 1738:20 the pilot of the T600 reported being visual with the AW139, and reported their level as 1700ft, although they stated on the RT that that was based on a QFE (and therefore a height of approximately 1800ft) but subsequently in their written report stated the Norwich QNH.

CPA could not be determined as no contact identifiable as the T600 was visible on either the area or the Norwich radar replay. A primary contact was observed on the Norwich radar replay subsequent to the report by the AW139 crew of their having turned for avoidance (Figure 3).

Figure 3 – Norwich Radar – 1738:29.

Although the Norwich controller was aware of the presence of the T600 as its pilot had called them earlier, the controller had not identified it on radar, and radar contact was subsequently lost whilst it was still 4-5nm to the west of the Airprox.

The Airprox took place in Class G airspace where, regardless of the ATC service being provided, pilots are ultimately responsible for their own separation.

UKAB Secretariat

The AW139 and T600 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 AW139 pilot was required to give way to the T600[2], which he did.

Summary

An Airprox was reported when an AW139 and a T600 flew into proximity at 1738 on Friday 24th March 2017. The AW139 pilot was operating under IFR in VMC, the T600 pilot under VFR in VMC. The AW139 pilot was in receipt of a Traffic Service and the T600 pilot was in receipt of a Basic Service, both from Norwich Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, the controller concerned, area and airport radar recordings and reports from the appropriate ATC and operating authorities.

The Board noted that the Airprox occurred about 7.5nm north of Norwich airport in Class G airspace, the AW139 pilot was inbound to Norwich airport on an IFR flight from an offshore installation, in receipt of a Traffic Service from Norwich, and had agreed to fly at 1600ft. The T600 pilot was on a local flight from a Norfolk airfield.

The T600 pilot commented that because he was aware that the helicopters in the area fly at 1600ft or 2000ft, he chooses not to fly at those altitudes. He reported that he was at 1700ft and was in receipt of a Basic Service, also from Norwich. The primary radar return from the aircraft is believed to have occurred initially, although the aircraft was not identified, but by the time of the Airprox it was not showing on the Norwich radar display. Additionally, the aircraft was not equipped with a transponder, therefore there was no secondary information available. Accordingly, in the absence of any radar return from the T600, the Norwich controller was unable to provide Traffic Information to the AW139 pilot about the T600. Accepting that he was not required so to do under a Basic Service, some members opined that given that he knew that the helicopter routes were usually active in that area, the T600 pilot would have been better served by communicating his intentions to Norwich radar, especially as he transited through the normal helicopter routes. This would have allowed the Norwich controller to improve his situational awareness, and that of other aviators.

In the circumstances, without any Traffic Information being available from ATC and because the T600 was not equipped with a transponder, which nullified any assistance from the AW139's TCAS, the only safety barrier available to the AW139 pilot was see and avoid, which they successfully employed. The AW139 pilot reported seeing the T600 in his one o'clock, within 1nm at a similar level and descended and turned left. The T600 pilot also reported sighting the AW139 at about the same time (0.5-0.75nm) and had made a slight left turn to increase separation. In view of this the Board quickly decided that the Airprox was best described simply as a conflict in Class G airspace resolved by both pilots. Because both pilots had been visual with each other and had taken timely and effective action to prevent a risk of a collision, the Airprox was assessed as risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G airspace resolved by both pilots.

Degree of Risk: C.

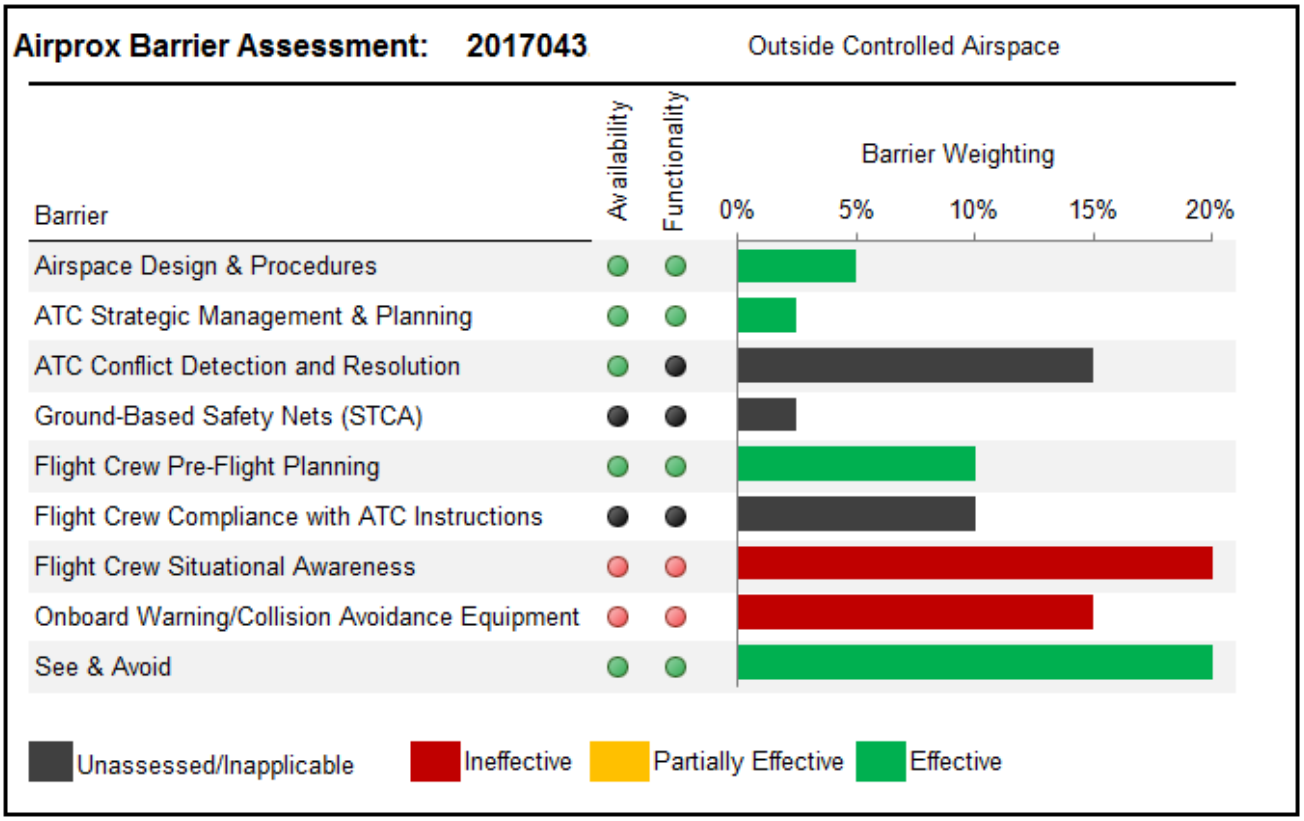
[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(2) Converging.

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:

Flight Crew Situational Awareness was assessed as **ineffective** because neither pilot was aware of the presence of the other aircraft until they established relatively late visual contact with each other.

Onboard Warning/Collision Avoidance System was assessed as **ineffective** because the T600 was not equipped with a TAS or a transponder.



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