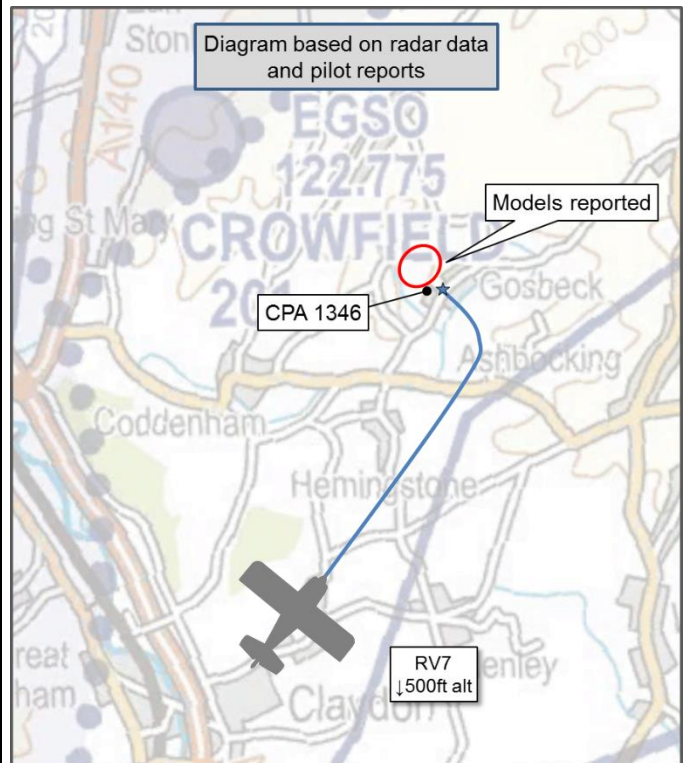


AIRPROX REPORT No 2017233

Date: 28 Sep 2017 Time: 1346Z Position: 5209N 00109E Location: Crowfield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Vans RV7	Model Glider
Operator	Civ Pte	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	N/A
Service	Basic	N/A
Provider	Wattisham	
Altitude/FL		
Transponder	A, C, S	
Reported		
Colours	Red, White	
Lighting	Strobes, Landing	
Conditions	VMC	
Visibility	>20km	
Altitude/FL	500ft	
Altimeter	QFE (1012hPa)	
Heading	310°	
Speed	65kt	
ACAS/TAS	Not fitted	
Separation		
Reported	0ft V/150yds H	150m H
Recorded	NK	



The RV7 pilot reports that he was on final approach to RW31 when two large, green, model aircraft appeared either side of his aircraft at very short range. Initially they were both slightly above his aircraft and he checked his altimeter which said he was passing 500ft. There was no time to take avoiding action, and, in his opinion, it was lucky that they did not collide. He knew there was a model flying site on the final approach to Crowfield and he later visited to talk to the modellers. They were not apologetic and insisted they were obeying the rules and were able to operate without any height restrictions. He opined that model aircraft should not be permitted, or be restricted to 200ft, in the approach to an airfield.

He assessed the risk of collision as 'High'.

The Model Aircraft Operators were flying up to three 4m glider models, one green on top and black underneath, the others yellow-and-black and red-and-black. There were two airborne at the time of the reported Airprox, and they saw the light aircraft make an approach to the airfield. As is normal practice, once the plane had been spotted, the person to do so warned the others and gave guidance as to the best direction in which to move away from its flight path. They estimated that they were lower than the light aircraft, about 150m away from it, flying away from its path and did not think anything more of the incident until the pilot visited them later that afternoon. All of the gliders are between 1.5 and 2kgs and are expensive competition models (~£2500) with extensive controls. They tend to be flown gently at 10-15mph and can be accurately controlled to land at the operators' feet. The operators did not feel the encounter was close enough to use the models' motors to get out of the way of the aircraft, and were sorry if the pilot thought their activity endangered his life, noting that they did their best to avoid concerning pilots flying full-sized aircraft sharing the airspace. The club had written to Crowfield airfield with details of their flying activities, and the Vans pilot stated that he had seen it on the airfield notice board.

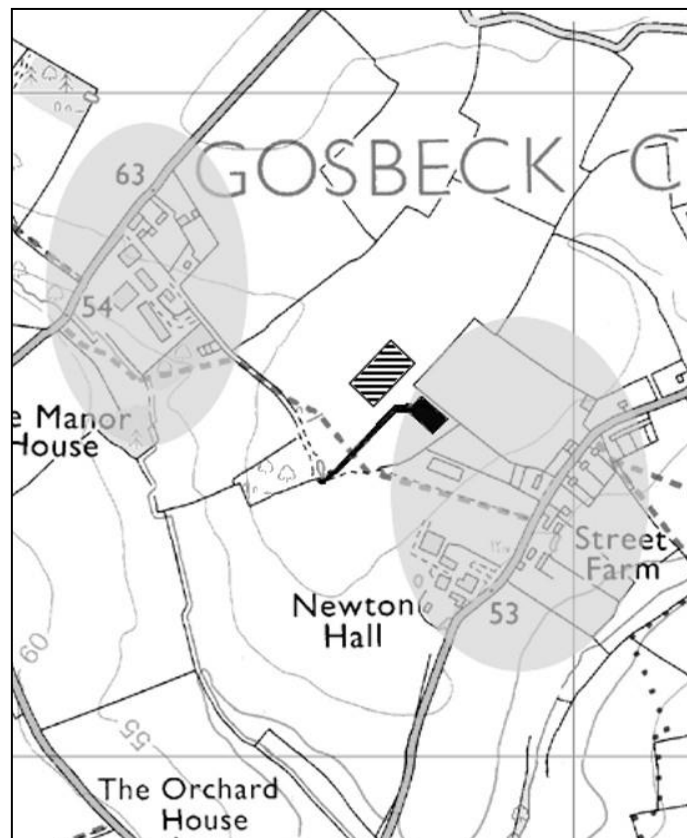
They assessed the risk of collision as 'Low'.

Factual Background

The weather at Wattisham was recorded as follows:

METAR EGUW 291250Z 25012KT 9999 FEW016 BKN100 BKN250 19/14 Q1014 BLU BECMG SCT020
WHT=

The Ipswich Radio Control Model Club (IRCMC) Manor Lane flying site is situated at Gosbeck, and the image below is taken from the club site rules.



Analysis and Investigation

UKAB Secretariat

CAP658 advice is never to fly any model aircraft within 50m of a person, vehicle or building. Notwithstanding, there are no specific ANO regulations regarding minimum separation of small unmanned aircraft from people, vessels, vehicles or structures for drones or model aircraft up to 20kg that are not fitted with surveillance or data acquisition systems [i.e. without cameras] other than if flown using FPV (with a maximum weight of 3.5kg) when 50m is the minimum distance (or 30m when taking off or landing), or 150m from any congested area or open-air assembly. For all drones or model aircraft up to 20kg that are fitted with surveillance and data acquisition systems [i.e. with cameras] the minimum separation distances are 50m (or 30m when taking off or landing)

from people or objects that are 'not under the control of the person in charge' (i.e. third parties), or 150m from any congested area or open-air assembly.

Notwithstanding the above, all drone or model aircraft operators are also required to observe ANO 2016 Article 94(2) which requires that the person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made, and the ANO 2016 Article 241 requirement not to recklessly or negligently cause or permit an aircraft to endanger any person or property. Allowing that the term 'endanger' might be open to interpretation, drones or model aircraft of any size that are operated in close proximity to airfield approach, pattern of traffic or departure lanes, or above 1000ft agl (i.e. beyond VLOS (visual line of sight) and FPV (first-person-view) heights), might potentially be considered to have endangered any piloted aircraft that come into proximity.

A CAA web site¹ provides information and guidance associated with the operation of Unmanned Aircraft Systems (UASs) and Unmanned Aerial Vehicles (UAVs), and CAP722 (UAS Operations in UK Airspace) and CAP658 (Model Aircraft: A Guide to Safe Flying) provides comprehensive guidance.

Additionally, the CAA has published Drone Aware² which states the responsibilities for flying unmanned aircraft. This includes:

'You are responsible for avoiding collisions with other people or objects - including aircraft.
Do not fly your unmanned aircraft in any way that could endanger people or property.
It is illegal to fly your unmanned aircraft over a congested area (streets, towns and cities).
..., stay well clear of airports and airfields'.

Summary

An Airprox was reported when an RV7 and two model gliders flew into proximity at 1346 on Thursday 28th September 2017. The RV7 pilot was operating under VFR in VMC, and making an approach to Crowfield airfield. The model gliders were being operated from the Gosbeck model flying site, about 1.6nm on the approach path to Crowfield.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the RV7 pilot and from the Model Aircraft operator and radar photographs/video recordings.

The Board first looked at the actions of the RV7 pilot. He had seen the model gliders in close proximity and was understandably concerned by them; his late sighting of them and his relative non-maneuvrability during the latter stages of his approach meaning that he did not have time to take avoiding action. Notwithstanding, members noted that details about the model flying site were displayed on the notice board at Crowfield, and the RV7 pilot knew of its location. The site was not a new one, and the club had been operating there for some years. Noting that the RV7 pilot was aware of its position on the approach path, members wondered whether he could have flown a tighter circuit, cutting inside the model site on his finals turn and thereby avoiding the risk.

UKAB Secretariat note: Subsequently, the UKAB secretariat was informed that Crowfield operates with noise abatement procedures, precluding a tighter circuit pattern; although this information is not available on the Crowfield Airfield website.

Turning to the model glider operators, the Board noted that they were indeed operating within CAA guidelines for model aircraft of that weight category. They were flying with a look-out, who warned them of the approaching aircraft, allowing them some opportunity to get out of the way. Whilst the rules state that operators must not 'endanger' other aircraft, there is no prescriptive distance laid

¹ www.caa.co.uk/uas

² CAP 1202

down as to how far away they should be away, and members noted that both parties estimated the separation in this case to be about 150m.

Members commented that the issue appeared to hinge on the perception of whether 150m was enough separation or not. The model operators felt that it was enough and that they were in control of their models to the extent that they could avoid the RV7; the RV7 pilot thought the models to be too close, and a risk to his flight. In discussing this issue, the Board could not come to any definitive conclusion given that circumstances pertaining at any particular time dictated what might be considered sensible separation. That being said, members agreed with the RV7 pilot that there were probably better places for the model flying club to operate than in the approach path at that range. Recognising that the model flying club had been at that site for quite a number of years, the Board thought that it would be advantageous for there to be more dialogue between the two units, with a proactive approach to make sure a similar incident didn't happen again. On the premise that other fields might not be available for the modellers to use away from the approach path near the Manor Lane location, and perhaps somewhat counter-intuitively, some members commented that the safest place for the modellers to operate was probably on the airfield itself where they would have easy access to information regarding aircraft movements, have plenty of space to operate (and probably ample parking too), and be able to easily temporarily pause or modify their activities when required. Failing that, the provision of an airband radio receiver tuned to the Crowfield frequency would also assist in providing earlier situational awareness of aircraft movements if they continued to use the Manor Lane location.

In assessing the cause of the Airprox, the Board quickly agreed that this had been a conflict in Class G airspace, resolved by the model aircraft operators. They assessed the risk as Category C, although safety had been degraded, there was no risk of collision because the model operators had already moved out of the way of the RV7.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the model aircraft operators.

Degree of Risk: C.

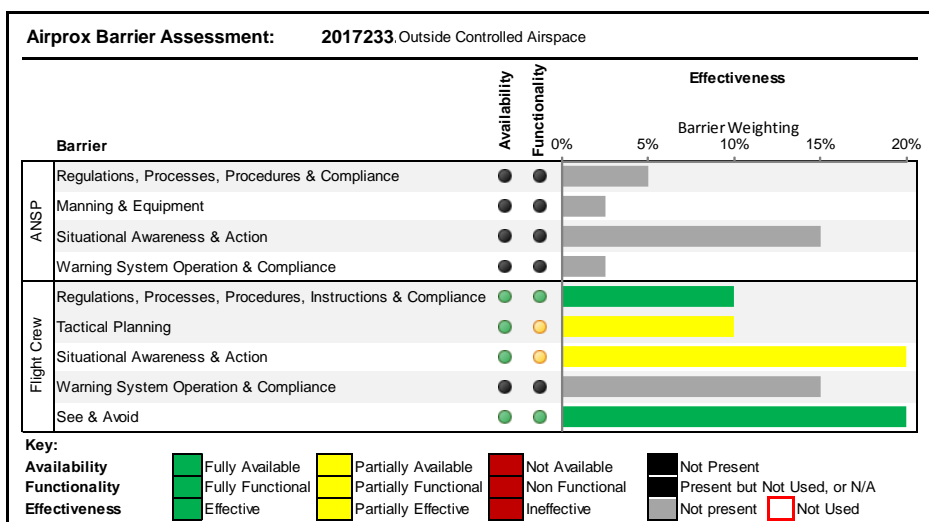
Safety Barrier Assessment³

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

Flight Crew:

Tactical Planning was assessed as **partially effective** because the RV7 pilot could have flown a tighter circuit to avoid the model flying site.

Situational Awareness and Action were assessed as **partially effective** because the RV7 pilot knew about the model flying site, but still overflew it, and the model aircraft operators could have increased their separation once they realised the RV7 was overflying their field.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](http://www.ukab.co.uk).