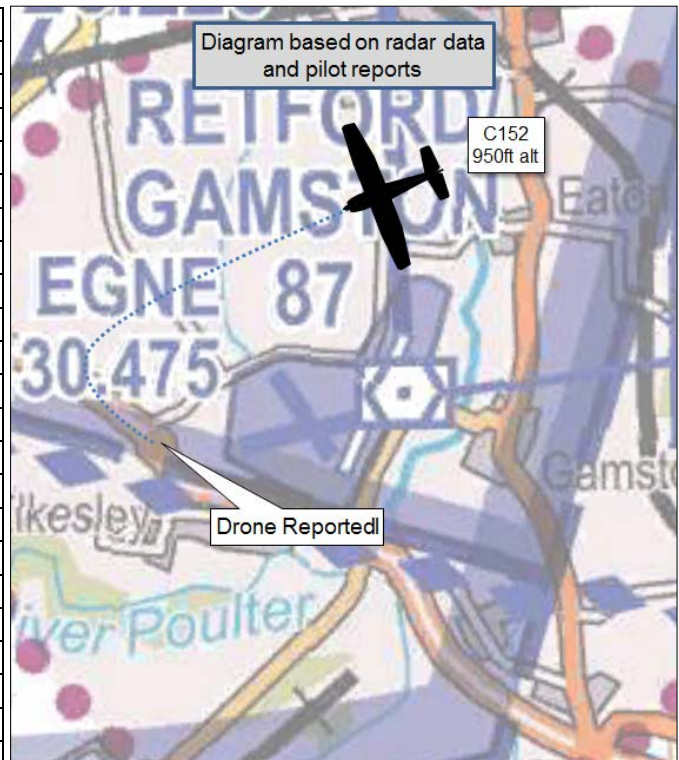


AIRPROX REPORT No 2016211

Date: 02 Oct 2016 Time: 0932Z Position: 5316N 00059W Location: Gamston

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	Drone
Operator	Civ Trg	Unknown
Airspace	Gamston ATZ	Gamston ATZ
Class	G	G
Rules	VFR	
Service	AGCS	
Provider	Gamston	
Altitude/FL		
Transponder	A, C	
Reported		
Colours	White, Brown	White, Gold
Lighting	NK	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	950ft	
Altimeter	QFE (1014hPa)	
Heading	150°	
Speed	80kt	
ACAS/TAS	Not fitted	
Separation		
Reported	400ft V/0m H	
Recorded		NK



THE C152 PILOT reports that they were in the visual circuit at Gamston, as they turned left-base the student spotted a drone, white in colour with a gold centre, in the 10 o'clock position. It passed below and behind and no avoiding action was taken.

He assessed the risk of collision as 'Low'.

The drone operator could not be traced.

Factual Background

The weather at Doncaster/Sheffield was recorded as follows:

METAR EGCN 020850Z 34012KT CAVOK 12/091 Q1017=

Analysis and Investigation

UKAB Secretariat

There are no specific ANO regulations limiting the maximum height for the operation of drones that weigh 7kg or less other than if flown using FPV (with a maximum weight of 3.5kg) when 1000ft is the maximum height. Drones weighing between 7kg and 20kg are limited to 400ft unless in accordance with airspace requirements. Notwithstanding, there remains a requirement to maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions. CAP 722 gives guidance that, within the UK, visual line of sight (VLOS) operations are normally accepted to mean a maximum distance of 500m [1640ft] horizontally and 400ft [122m] vertically from the Remote Pilot.

Nor are there any specific ANO regulations limiting the operation of drones in controlled airspace if they weigh 7kg or less other than if flown using FPV (with a maximum weight of 3.5kg) when they must not be flown in an ATZ during notified hours, without ATC permission. Drones weighing between 7kg and 20kg must not be flown in an ATZ during notified hours, without ATC permission. CAP722 gives guidance that operators of drones of any weight must avoid and give way to manned aircraft at all times in controlled Airspace or ATZ. CAP722 gives further guidance that, in practical terms, drones of any mass could present a particular hazard when operating near an aerodrome or other landing site due to the presence of manned aircraft taking off and landing. Therefore, it strongly recommends that contact with the relevant ATS unit is made prior to conducting such a flight.

Notwithstanding the above, all drone 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 of any size that are operated in close proximity to airfield approach, pattern of traffic or departure lanes, can be considered to have endangered any aircraft that come into proximity. In such circumstances, or if other specific regulations have not been complied with as appropriate above, the drone operator will be judged to have caused the Airprox by having flown their drone into conflict with the aircraft.

A CAA web site¹ provides information and guidance associated with the operation of Unmanned Aircraft Systems (UASs) and Unmanned Aerial Vehicles (UAVs).

Additionally, the CAA has published a UAV Safety Notice², 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 a C152 and a drone flew into proximity at 0932 on Sunday 2nd October 2016. The C152 pilot was operating under VFR in VMC, and in receipt of a Air-to-Ground Service from Gamston. The drone operator could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the C152 pilot and radar photographs/video recordings.

Members noted that the drone was operating at approx 500ft, within Gamston ATZ without the permission of ATC; as such, the Board considered that the drone operator had endangered the C152 and its occupants. Therefore, in assessing the cause, the Board agreed that the drone had been flown into conflict with the C152. Turning to the risk, although the incident did not show on the NATS radars, the Board noted that the pilot had estimated the separation to be 400ft below the aircraft, and that the C152 pilot had not felt the need to take any avoiding action. Notwithstanding the difficulty of range assessment without visual cues, it was also agreed that the drone had passed sufficiently clear that there was no risk of collision on this occasion.

¹ www.caa.co.uk/uas

² CAP 1202

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The drone was flown into conflict with the C152.

Degree of Risk: C.