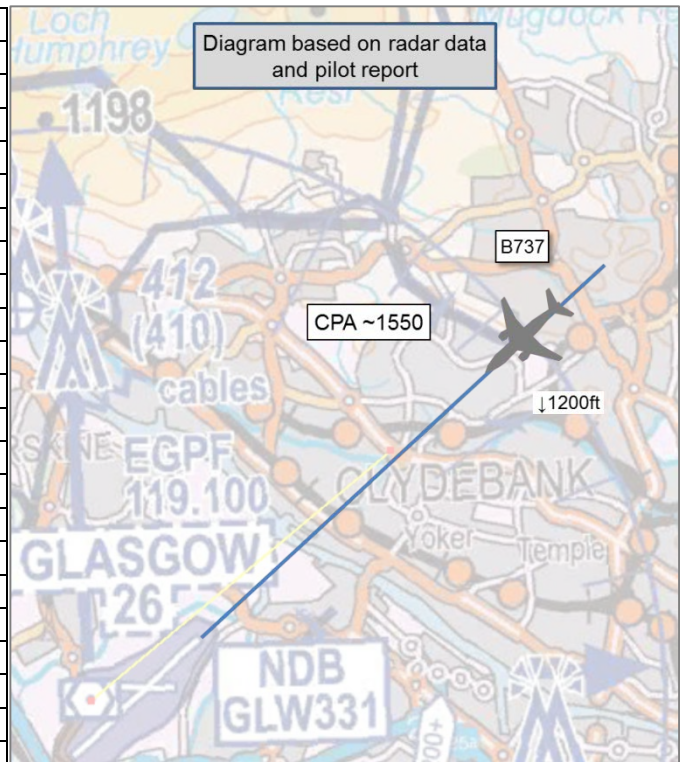


AIRPROX REPORT No 2016026

Date: 06 Mar 2016 Time: 1550Z Position: 5554N 00422W Location: Glasgow CTR

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------------|--------------|--------------|
| Aircraft | B737 | Drone |
| Operator | CAT | Unknown |
| Airspace | Glasgow CTR | Glasgow CTR |
| Class | D | D |
| Rules | IFR | |
| Service | NK | |
| Provider | Glasgow | |
| Altitude/FL | 800ft | |
| Transponder | A, C, S | |
| Reported | | Not reported |
| Colours | Blue/white | |
| Lighting | NK | |
| Conditions | VMC | |
| Visibility | NK | |
| Altitude/FL | 1200ft | |
| Altimeter | QNH (NK hPa) | |
| Heading | 230° | |
| Speed | 140kt | |
| ACAS/TAS | TCAS II | |
| Alert | None | |
| Separation | | |
| Reported | 100ft V/0m H | |
| Recorded | | NK |



THE B737 PILOT reports being at GOW 050/3, descending on approach to Glasgow, when they passed 100ft above a drone. There was no time to take avoiding action. He reported the drone by radio to the Glasgow controller.

He assessed the risk of collision as 'Low'.

THE DRONE OPERATOR: A drone operator could not be traced.

Factual Background

The weather at Glasgow was recorded as follows:

METAR EGPF 061520Z AUTO 29008KT 9999 OVC041 05/M02 Q1005=
METAR EGPF 061550Z AUTO 29008KT 9999 OVC039 05/M01 Q1005=

Analysis and Investigation

UKAB Secretariat

The Air Navigation Order 2009 (as amended), Article 138¹ states:

'A person must not recklessly or negligently cause or permit an aircraft to endanger any person or property.'

¹ Article 253 of the ANO details which Articles apply to small unmanned aircraft. Article 255 defines 'small unmanned aircraft'. The ANO is available to view at <http://www.legislation.gov.uk>.

Article 166, paragraphs 2, 3 and 4 state:

'(2) The person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made.

(3) The person in charge of a small unmanned aircraft must 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.'

(4) The person in charge of a small unmanned aircraft which has a mass of more than 7kg excluding its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight, must not fly the aircraft

(a) in Class A, C, D or E airspace unless the permission of the appropriate air traffic control unit has been obtained;

(b) within an aerodrome traffic zone ...; or

(c) at a height of more than 400 feet above the surface unless it is flying in airspace described in sub-paragraph (a) or (b) and in accordance with the requirements for that airspace.'

A CAA web site² 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 Notice³ 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 B737 and a drone flew into proximity at about 1550 on Sunday 6th March 2016. The B737 pilot was operating under IFR in VMC, most likely in receipt of an Aerodrome Control Service from Glasgow Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the B737 pilot and radar photographs/video recordings, which did not show a track for the drone.

The Board quickly agreed that the drone was being operated at an altitude and location that contravened regulations, and hence was flown into conflict with the B737, which was on final approach to Glasgow inside the Class D airspace of the Glasgow CTR. The reported separation was 100ft vertically above the drone when sighted, but the B737 was descending (which would have further reduced the separation as it flew over the drone) and the pilot did not have time to take avoiding action. As such, members agreed that there had been a definite risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The drone was flown into conflict with the B737.

Degree of Risk: A.

² www.caa.co.uk/uas

³ CAP 1202