

AIRSPACE CO-ORDINATION NOTICE

Safety and Airspace Regulation Group



ACN Reference:	Version:	Date:	Date of Original
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AR-2025-16	2.0	27/01/2025	06/01/2025
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Civil Aviation Authority

AIRCRAFT EMISSION DATA SURVEY FLIGHT (REVEAL)

NDS

Subject to NOTAM: No**Date(s) of activity/Validity:**

6 Jan 25 – 31 Jan 26

Times - ALL TIMES UTC¹

0930 – 1800

Vertical Limits:

Between FL 250 – FL 350 (RVA) – See section 2

Allocated Mode 3A (SSR):

Tactically Issued by ATC

Aircraft Details:

Type: BAe146-301
Callsign: AIRTASK 146 (DCT146)

NDS Approved:**Yes – Subject to the conditions in section 2****Event Sponsor(s):**

Directflight Ltd
ARA Ops Co-ordinator (Attn: D Simpson/ B Black)
Building 146,
Cranfield Airport
Bedfordshire
MK43 0AL
Ops Office 01234 817930
D.Simpson / 07799 430802
B.Black / 07464 549161
ARA.Ops@airtask.com

Aircraft Operator(s):

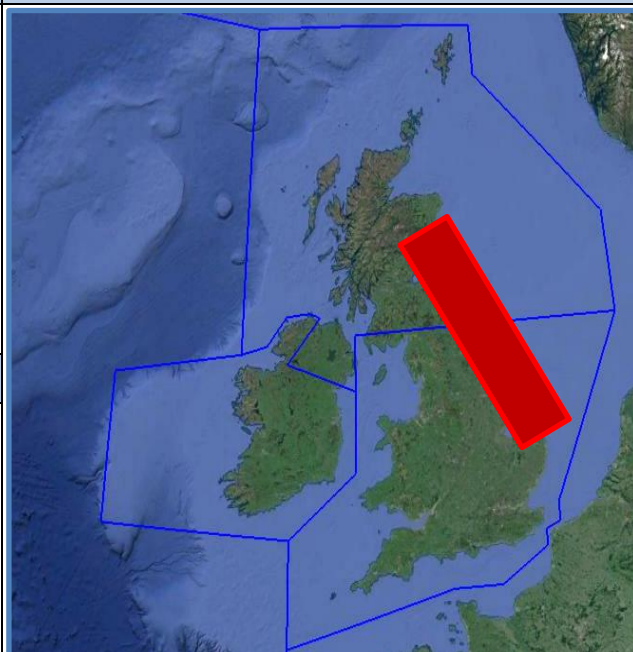
Directflight Ltd
Building 146,
Cranfield Airport
Bedfordshire
MK43 0AL
01234 817930
ARA.OPS@airtask.com

ATS Units/**Controlling Agencies:**

Prestwick ACC	01294 655300
Swanwick ACC	01489 612420
Swanwick Mil (78 Sqn) East	01489 612408
Swanwick Mil (78 Sqn) North	01489 612943

Airspace Reservations:

MAMC (Info)	01489 612495
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**Departure/Destination Aerodrome(s)**

EGTC - Cranfield Airport

ACN Issued by:

AU2

¹ [AIS Temporal Reference System](#): Daylight saving time is UTC plus 1 hour. The expression "summer period" indicates that part of the year in which "daylight saving time" is in force. The other part of the year is named the "winter period". Times applicable during the "summer period" are given in brackets.

SECTION 1: CO-ORDINATION ARRANGEMENTS (GENERAL)

1. The pilot/operator is requested to telephone the ATC authorities on the cover prior to departure in order to notify or update the sortie details including area(s) of operation and planned levels (quoting the ACN Reference). A minimum of 24 hours' notice should be given unless specified in Section 2.
2. There may be other aircraft and/or activities outside Controlled/Regulated Airspace unknown to ATC.
3. The carriage and operation of a serviceable transponder (including Mode 'C') has been specified.
4. The pilot will be responsible for obtaining all necessary ATC clearances and for maintaining R/T contact with appropriate ATC authorities.
5. The pilot/operator will be responsible for obtaining prior clearances to enter any UK Danger Areas affected by the flight profile from the appropriate Range Control Authority unless this is specifically detailed in Section 2.
6. Other Unusual Aerial Activities (UAAs) may be notified to the CAA Safety and Airspace Regulation Group (SARG) and may take place within the airspace encompassed by this flight. The pilot/operator is to ensure that UK Daily NOTAM Nav Warnings are consulted prior to each flight.
7. All flights within Controlled Airspace are subject to the requirements of a Flight Plan in accordance with UK AIP ENR1.10. The ACN Reference should be entered into Field 18 of the Flight Plan together with any relevant 'special handling' codes.
8. Flight prioritisation and Non-Deviating Status is in accordance with the information specified on the ACN Cover. Such status may be afforded to part or all of the flight – see Section 2.
9. Availability of an ATS from Plymouth Military, Swanwick Military (78 Sqn) or Western Radar is subject to unit capacity, priorities and limitations of radar and radio coverage. Minimum pre-flight notification as per UK AIP ENR 1.6 unless otherwise specified in Section 2 of this ACN.
10. The CAA actively encourages the use of Moving map technology in the planning and flying phases of flights to reduce the risk of airspace infringements.

PUBLICATIONS AND CHANGES

11. The activity area may lie within Controlled and Uncontrolled Airspace as well as airspace reserved for military use. Aircrew are to thoroughly familiarise themselves with UK airspace structures and procedures, in particular those laid down within the UK Aeronautical Information Publication (UK AIP), ENR 1.1 and be fully conversant with UK Flight Information Services in accordance with UK CAP 493 (MATS Pt 1).
12. The CAA VFR 1:500,000 and 1:250,000 charts and the UK AIP ENR 5 depict some, but not all aviation activity sites and amendments should also be checked. Please refer to <http://www.nats-uk.ead-it.com>
13. This ACN details specific coordination essential to the activity taking place and does not remove the need for aircraft operators to comply with national flight planning and notification procedures. Pilots and ANSPs are required to ensure that all related aviation sites are aware of this planned activity and of subsequent changes not captured within this document.
14. The Sponsor or Event Organiser should co-ordinate any changes to this ACN with SARG quoting the ACN Reference at the top of the page.

Airspace Regulation (Utilisation) – AU2
Email: AROps@caa.co.uk
Tel: 01293 983880

SECTION 2: CO-ORDINATION ARRANGEMENTS (SPECIFIC)

15. This ACN details the flight profiles required for the UK's Atmospheric Research Aircraft (ARA) to conduct an aviation emission data survey analysis flight, known as science campaign REVEAL (REducing aViation Emission uncertAinty: cLimate impacts of NOx). The flights will require profiles that fly along, or offset from, particular airways (see detailed map at section 3) in order to collect emission data from aircraft travelling along those routes.

16. This ACN replaces ACN AR-2024-4625.

17. **This ACN does not infer any approval to deviate from the ANO, Rules of the Air, or the issued AOC.** Should flight operations require an exemption or specific permission from the regulations, the sponsor shall ensure that these are obtained from the relevant CAA department prior to the flight taking place. It is the sponsors responsibility for ensuring the validity of any such exemption or permission.

18. **Notification.** The sponsor is to engage with the agencies listed on page one of this ACN at least 1 week prior to the planned activity (if notification from science team permits) to ensure that they are made aware of the planned window for the flight and can coordinate with the sponsor the most appropriate timings. Prior consultation with the Military Airspace Management Cell is advised to determine the activity status of the North Sea Danger Areas. The sponsor is to notify the agencies listed on page one of this ACN at least 24 hours prior to undertaking the task. In addition, the pilot is to contact the appropriate agencies at least 2 hours prior to departure to confirm final details and availability of an ATS.

19. **Priority.** This flight has been afforded Non-Deviating Status (NDS) whilst established in the operating area and within Controlled Airspace (CAS), (*UK AIP ENR 1.1 (4.2) & CAP 493 – Section 1, Ch4, Para 17 refers*). Whilst in transit to the operating area, outside CAS and in between runs, the aircraft is categorised as CAT Z, (*CAP 493 – Section 1, Ch4, Para 10c refers*) and attracts no priority. In order to reduce the impact to other airspace users, the controlling authority may request that the pilot hold, or accept radar vectors in order to make best use of the airspace, or to reduce overall delays.

20. **Level.** The aircraft is required to conduct serials between FL250 and FL350. To enable timely planning for ATC, the pilot is responsible for informing ATC of the anticipated time for a level change.

21. **RVSM Status.** The aircraft is RVSM approved, including whilst engaged on measured runs.

22. **Tracks.** The proposed operating profile is shown in Section 3. The aircraft may request minor deviations in order to achieve the best results and can also accept approximate routing/vectors but must maintain a constant flight level. In all cases, the aircraft shall not change level or heading without the explicit approval of ATC when within CAS, or without prior notification when outside CAS. The aircraft shall pre-notify ATC of all expected procedural turns and the direction of travel required.

23. These routes would be flown 2x per day (one clockwise and one anti-clockwise) on alternate days. Both flights have an initial altitude of FL300, climbing to FL350 along the East coast - this allows the entire route to be sampled at both FL on a given day. The flights are not weather dependent, and they can be scheduled to fly on fixed days where necessary.

24. **Flight Plan & Routing.** The aircraft shall route from EGTC to the required operating area. The sponsor is responsible for submitting a flight plan at least 3 hours prior to departure (following the final notification call). In addition, the following text shall be inserted into Field 18:

RMK/NON-DEVIATING STATUS APPROVED

RMK/AIRSPACE COORDINATION NOTICE AR-2025-16 REFERS

25. **ATS Provision – Controlled Airspace (CAS).** Access to controlled airspace is subject to the prevailing traffic situation and controller workload. The pilot is responsible for obtaining a clearance to enter controlled airspace prior to penetration.

26. **Temporary Reserved Areas (TRA).** The sponsor is responsible for complying with the requirements for access to any TRA iaw the UK AIP – ENR 1.1 (Para 5.1.5).

SECTION 3

Area of Operation

27. A chart highlighting the area of operation is shown below. This is for illustrative purposes only and not for operational planning.

Chart 1 – Operating Area AM Flight

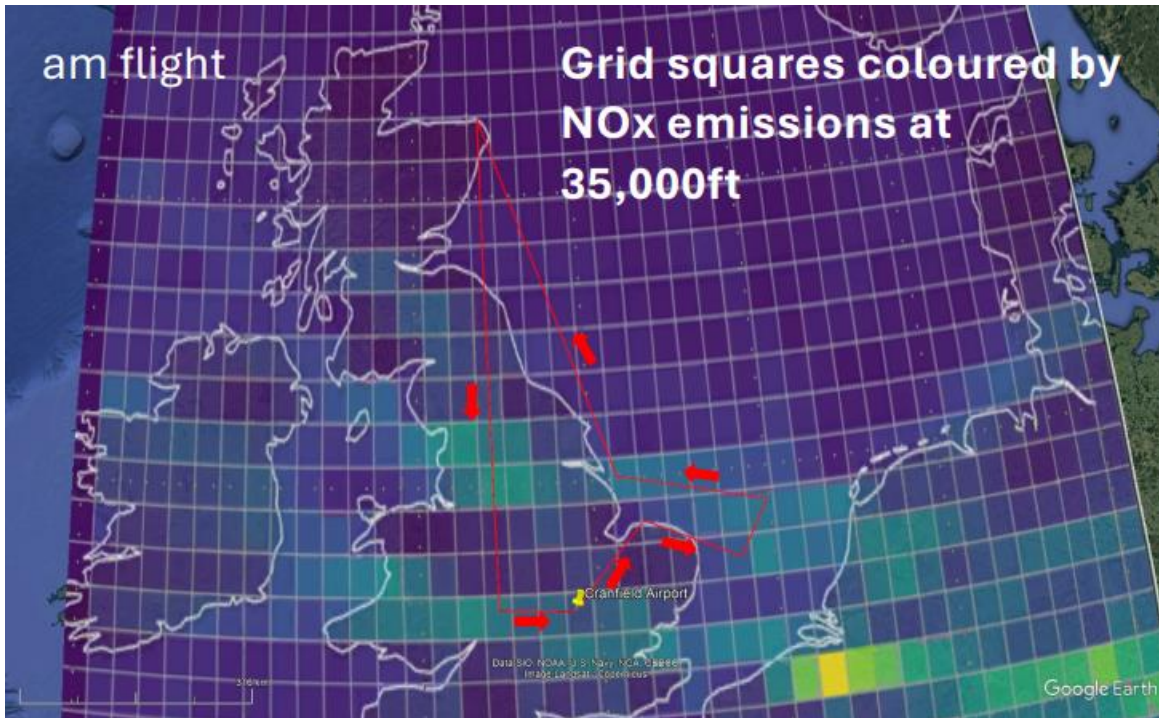


Chart 2 – Operating Area PM Flight

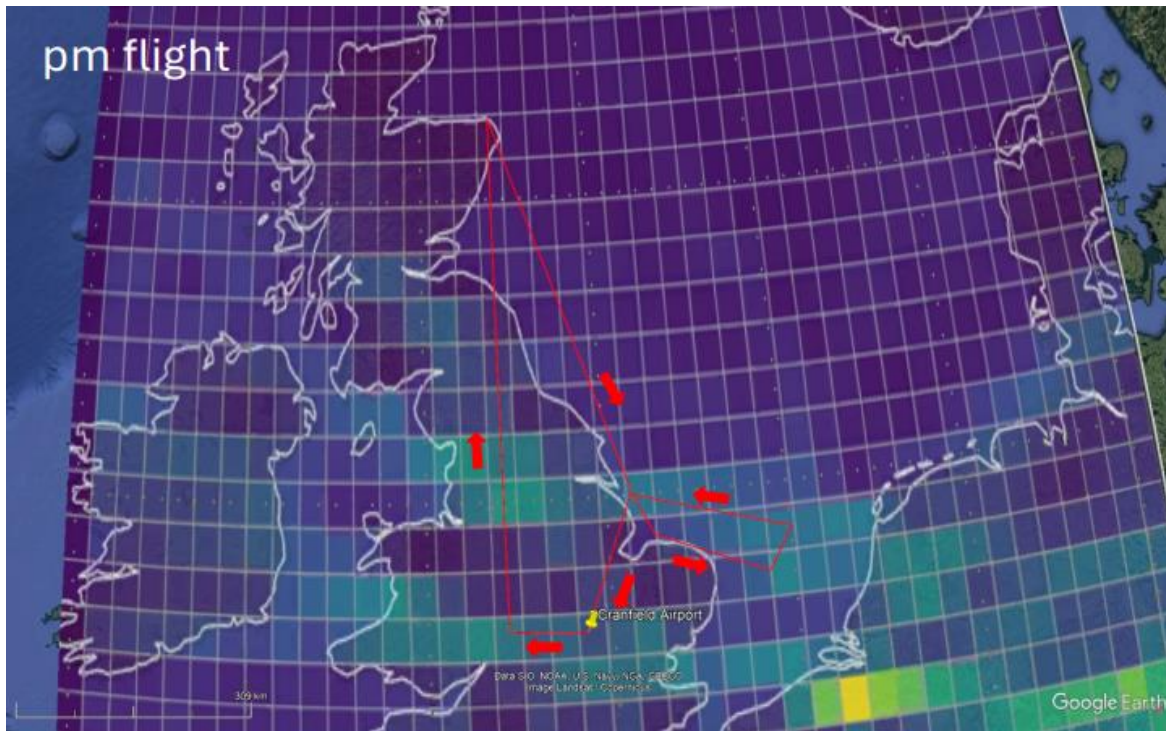


Table 1 Proposed Route/Track

Serial	Description
1	10.00 T/O Cranfield
2	Ascend to 30,000ft heading towards DOLAS, then run through points ENITO, TOLSA and LIBSO
3	At LIBSO head up East Coast of UK to a point around 57 30' N 2W, ascending to 35,000ft when possible
4	At 57 30' N 2W, turn and head South towards 52N, 2W at 35,000ft
5	Return to Cranfield (3.5 hour flight)
6	Refuel
7	14:30 T/O Cranfield
8	Head W to 52 N 2W, ascending to 30,000ft
9	Head N to 57 30' N 2W at 30,000ft
10	Turn and head down East coast to point DOLAS, ascending to 35,000 ft when possible
11	Run through points ENITO, TOLAS and LISBO at 35,000ft
12	At point LIBSO, return to Cranfield (3.5 hour flight)