

AIRSPACE CO-ORDINATION NOTICE

Safety and Airspace Regulation Group



ACN Reference:	Version:	Date:	Date of Original
2023-04-0082	2.0	14/04/2023	07/03/2023

RADAR CALIBRATION PLUTO AIR DEFENCE RADAR FLIGHTS

NDS

Subject to NOTAM: No

Date(s) of activity/Validity: **Times - ALL TIMES UTC¹**

14th April 2023 – 30th November 2024 09:00 – 18:00 (08:00 – 16:00)

Vertical Limits: **Allocated Mode 3A (SSR):**

FL380 **RVA** Tactically Issued by ATC – **0024 is not to be used**

Aircraft Details: **NDS Approved:**

Type: DA20
Callsign: TBC
Yes – Subject to the conditions in Section 2

Event Sponsor(s): **Aircraft Operator(s):**

RAF Boulmer Eng and Logs Wg HQ Alnwick Northumberland NE66 3JF 01665 607244 BOU-BM-Ops-Availability@mod.gov.uk	Draken Europe Bournemouth Airport Christchurch Dorset BH23 6NE 01202 409013
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ATS Units/ Controlling Agencies: **Geographical Limits:**

Swanwick Mil (78 Sqn) – East 01489 612408 Swanwick Mil (78 Sqn) – North 01489 612943 Swanwick Mil (78 Sqn) – West 01489 612417 Info.: CRC Boulmer, Hebrides, Prestwick ACC, Swanwick ACC	
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Airspace Reservations (Assessed at FL380 Only)

EG D064B/C	South West MDA	01489 612495
EG D138A/D	Shoeburyness	01702 383254
EG D323	Southern MDA	01489 612495
	- F, G, H, K	
EG D509	Campbeltown	01923 956371
EG D701	Hebrides	01870 604449
	- A, B, D, E, F, I, J, K, M & Y	
EG D712 (All)	Northern MDA	01489 612495
EG D801	Cape Wrath	01971 511242
EG D809 (All)	Moray Firth	01489 612495

Departure/Destination Aerodrome(s) **ACN Issued by:**

EGHH, EGNV, EGQS AS3

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) – AS3
Email: AROps@caa.co.uk
Tel: 01293 983880

SECTION 2: CO-ORDINATION ARRANGEMENTS (SPECIFIC)

15. This ACN details the flight profiles required to conduct routine calibrations of Air Defence Radars (ADRs) of the RAF Air Surveillance and Control System (ASACS)
16. **This ACN is the fourth iteration and replaces ACN 2021-07-0365.**
17. The calibration is split into two elements:
 - a. North Group Benbecula, Buchan & Saxa Vord, Brizlee Wood
 - b. South Group Brizlee Wood, Portreath & Neatishead
18. Each day will start at either Bournemouth or Teesside and comprise of two sorties (North and South). The routes are indicative, and the calibrator will break off of a route before reaching the radar head being assessed, then re-position onto the next radial. In order to assist ATC with planning, the pilot is requested to inform ATC at the earliest opportunity when considering a change in heading or level, in all instances **the aircraft must not change heading or level without prior approval from ATC**, as there may be other traffic in the vicinity that requires coordinating against.
19. **Dates.** These flights are routinely scheduled for the 2nd Thursday of each month, however, may be conducted outside this schedule with prior approval from the controlling agencies.
20. **Level.** The requested level is FL380 (RVA). The aircraft may operate at a lower level, subject to ATC requirements, but the level must be maintained for the duration.
21. **Notification.** The aircraft operations controller is requested to notify Swanwick Mil (78 Sqn), once the date and route profile are known and at least 24 hours in advance. Prior notification to Swanwick Mil (78 Sqn) is vital for their planning, as this flight attracts Priority 6 (*BM Force Orders: 303 - Area Radar Priorities refers*), meaning that service provision is not guaranteed, is subject to Unit manning and higher priority tasks.
22. Between the hours of 18:00 to 08:00 (local time) on a weekday, at any time on a weekend or during a UK public holiday, Swanwick Mil (78 Sqn) requires at least two weeks prior notice in order to obtain an ATS in support of this task.
23. In addition, the pilot is to contact the appropriate agencies at 1.5 hours prior to the expected departure time to confirm final details and availability of an ATS.
 - a. Flight Plan should be filed and include the following address: EGZYOATT.
24. **Coordination with London ACC & Prestwick ACC.** The appropriate military supervisor is to discuss the flight with the relevant Civilian Operations Supervisor (OS) prior to approving departure. The OS is then responsible for notifying the impacted Group Supervisor/Sector Teams.
25. **Priority.** This flight has been afforded Non-Deviating Status (NDS) whilst established on a measured run only and within Controlled Airspace (CAS), (*UK AIP ENR 1.1 (4.2) & CAP 493 – Section 1, Ch4, Para 17 refers*). 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.
26. **Air Traffic Service (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.
27. **Danger Areas (DA's).** Access to any danger area is subject to the requirements of the operating authority and is not guaranteed. The sponsor is responsible for coordinating access those DA's that require penetrating. The flight is permitted to operate non-segregated.

28. **Only those DA's on the notified route at FL380 have been identified on page one.** Should the aircraft require to operate at a different level, the sponsor should ensure that all appropriate DA's have been contacted and access agreed in advance. Whilst this task is of high importance **DAs may be booked but shall not be suppressed without prior approval from the Danger Area Airspace Manager (DAAM) and the CAA (Manager AR).**

SECTION 3

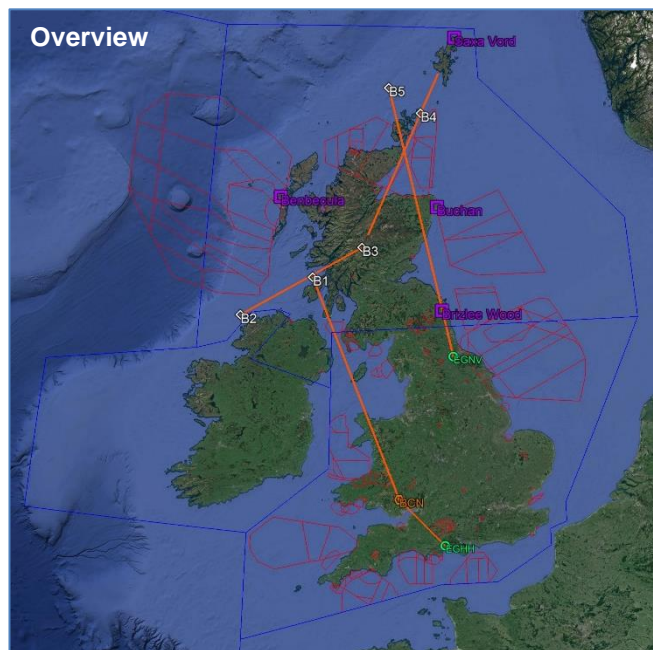
Routes & Charts.

29. Charts highlighting the various areas of operation are shown below. This is for illustrative purposes only and not for operational planning.

30. The calibration aircraft shall follow the following routing:

a. Bournemouth (PLUTO North)

WAYPOINT	POSITION
EGHH – Bournemouth	
BCN (VOR)	51 43 32N 003 15 47W
B1	56 04 00N 006 12 00W
Benbecula	57 37 00N 007 27 00W
B2	55 16 00N 008 36 00W
B3	56 40 00N 004 30 00W
Buchan	57 27 00N 001 49 00W
B4	59 19 00N 00218 00W
Saxa Vord	60 50 00N 000 50 00W
B5	59 50 00N 003 30 00W
Brizlee Wood	55 25 00N 001 46 00W
EGNV – Teesside	



Total = 3h

The radar calibration requires runs from 260nm to 100nm. The route may be tactically changed to gain distance from the next radar head once 100nm is achieved from the current target.

Benbecula, Buchan and Saxa Vord are aiming waypoints to enable crews to drive directly at the target radar if their routing is altered by ATC. **In all instances the aircraft shall break off approx. 100nm prior to the radar being assessed.**

Expected FPL Route:

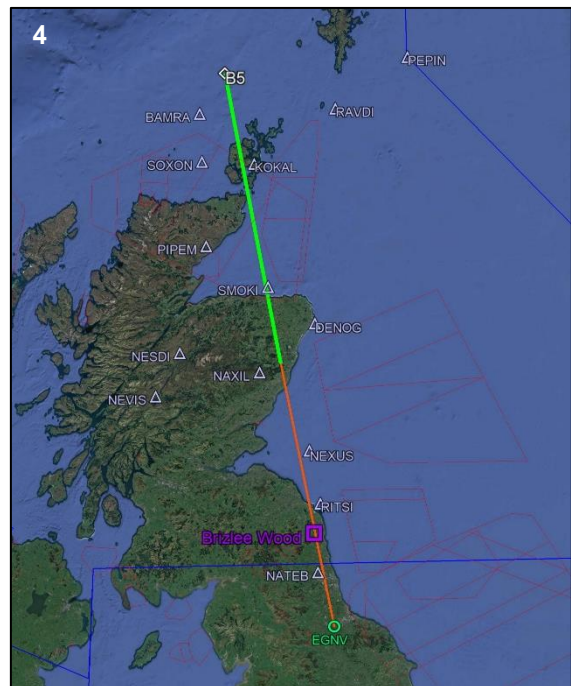
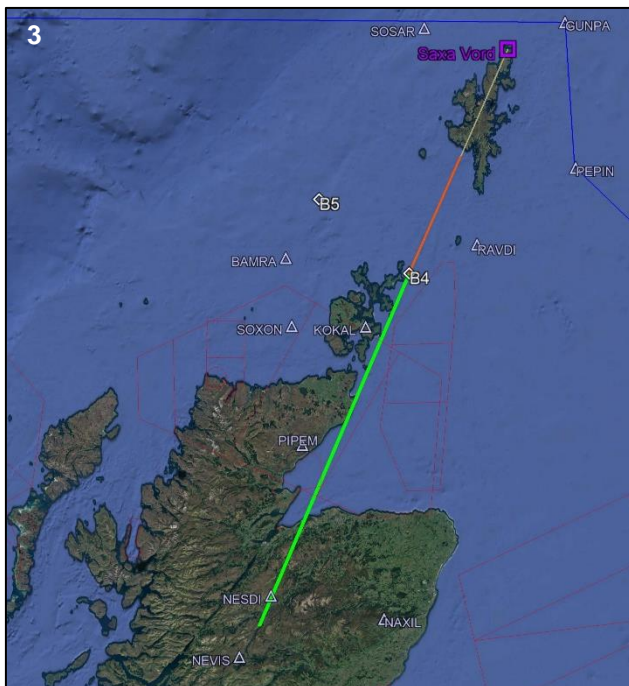
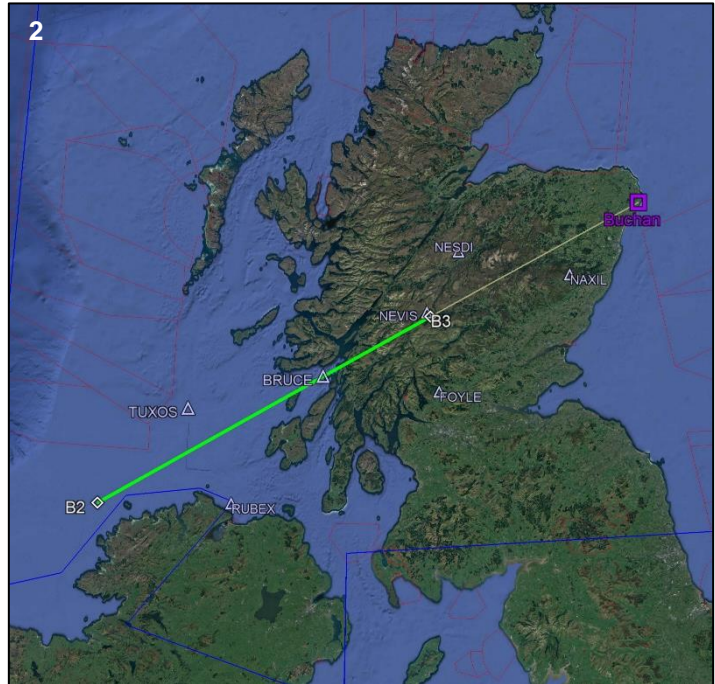
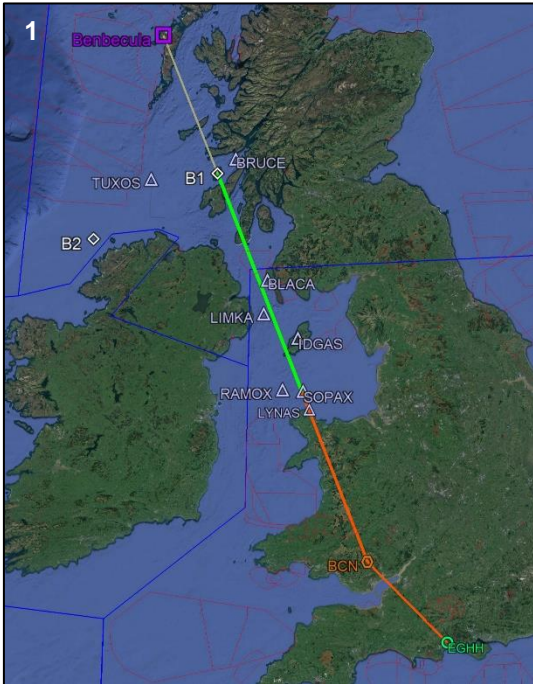
EGHH - BCN - N5604W00612 - N5516W00836 - N5640W00430 - N5919W00218 - N5950W00330 - EGNV

BOURNEMOUTH - PLUTO NORTH CHARTS

Orange – expected flight track (non-measured & subject to ATC requirements)

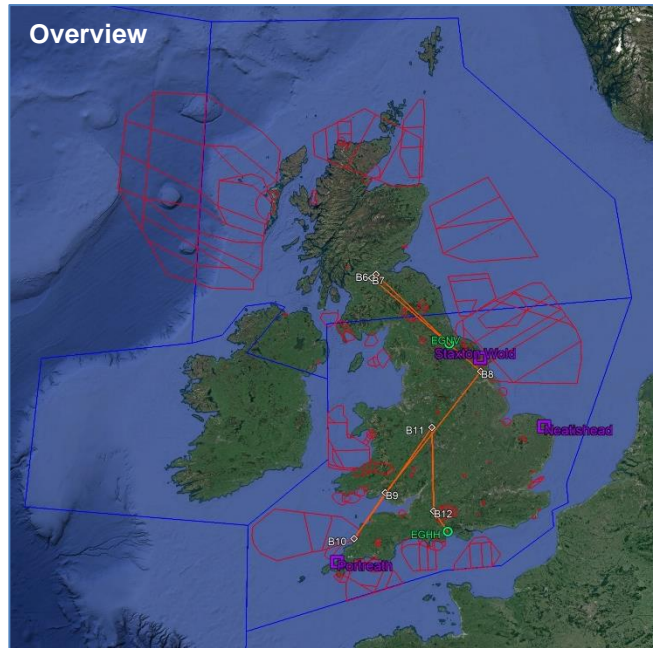
Green – Measured Run (NDS)

Grey – Track extended towards the radar head (not flown)



b. Bournemouth (PLUTO South)

WAYPOINT	POSITION
EGNV – Teesside	
B6	55 57 00N 003 47 00W
B7	55 53 00N 003 56 00W
B8	53 55 00N 000 27 00W
Neatishead	52 42 00N 001 00 28E
B9	51 38 00N 003 44 00W
Portreath	50 16 00N 005 16 00W
B10	50 44 00N 004 44 00W
B11	52 53 00N 002 10 00W
Staxton Wold	54 11 00N 000 26 00W
B12	51 13 00N 002 15 00W ²
EGHH – Bournemouth	



Total = 2h

The initial Climb to FL380 will take approx. 180nm, so a dogleg of approximately 60nm will be required en-route to the first waypoint to achieve altitude.

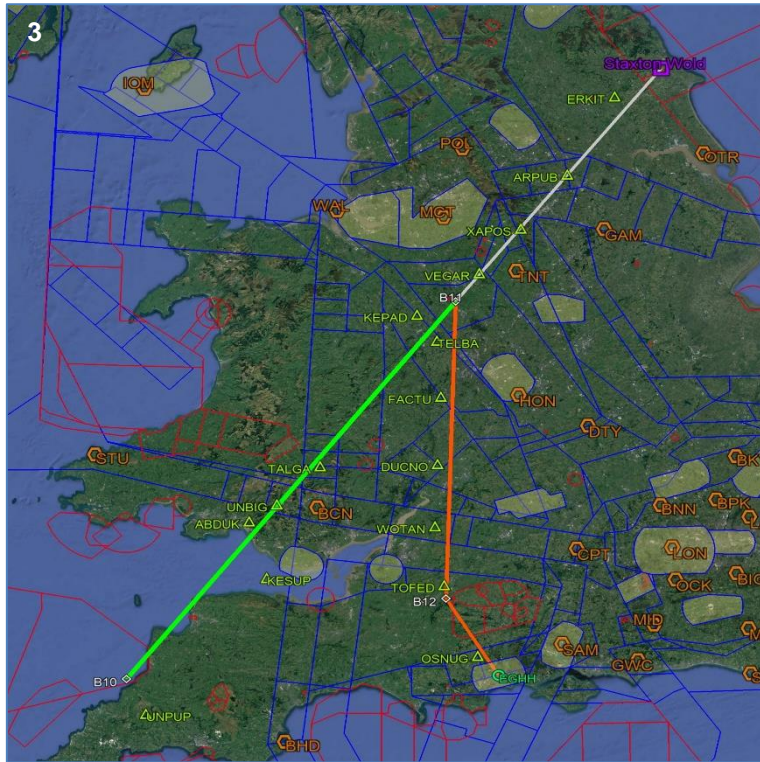
The radar calibration requires runs from 260nm to 100nm. The route may be tactically changed to gain distance from the next radar head once 100nm is achieved from the current target.

Neatishead and Portreath are aiming waypoints to enable crews to drive directly at the target radar if their routing is altered by ATC. **In all instances the aircraft shall break off approx. 100nm prior to the radar being assessed.**

Expected FPL Route:

EGNV - N5557W00347 - N5553W00356 – N535500W0002700 – N513800W0034400 – N504400W0044400 – N525300W0021000 – N511300W0021500 – EGHH

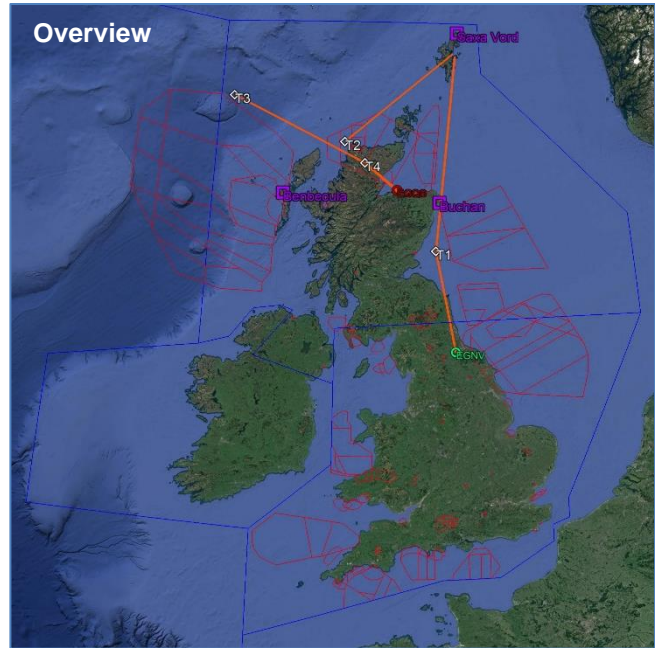
² Waypoint to ensure westerly clearance of the Salisbury Plain Training Aera (SPTA) Complex.



c. Teesside (Pluto North)

WAYPOINT	POSITION
EGNV - Teesside	
T1	56 30 00N 002 00 00W
Saxa Vord	60 50 00N 000 50 00W
T2	58 40 00N 005 15 00W
Benbecula	57 37 00N 007 27 00W
T3	59 30 00N 009 30 00W
T4	58 15 00N 004 30 00W
Buchan	57 27 00N 001 49 00W
EGQS - Lossiemouth	

Total = 2hr 40mins



The radar calibration requires runs from 260nm to 100nm. The route may be tactically changed to gain distance from the next radar head once 100nm is achieved from the current target.

Benbecula and Buchan are aiming waypoints to enable crews to drive directly at the target radar if their routing is altered by ATC. **In all instances the aircraft shall break off approx. 100nm prior to the radar being assessed except for Saxa Vord; where the aircraft will continue closer to the radar to create the leg length for Benbecula, however the aircraft will probably turn just prior to the site.**

Expected FPL Route:

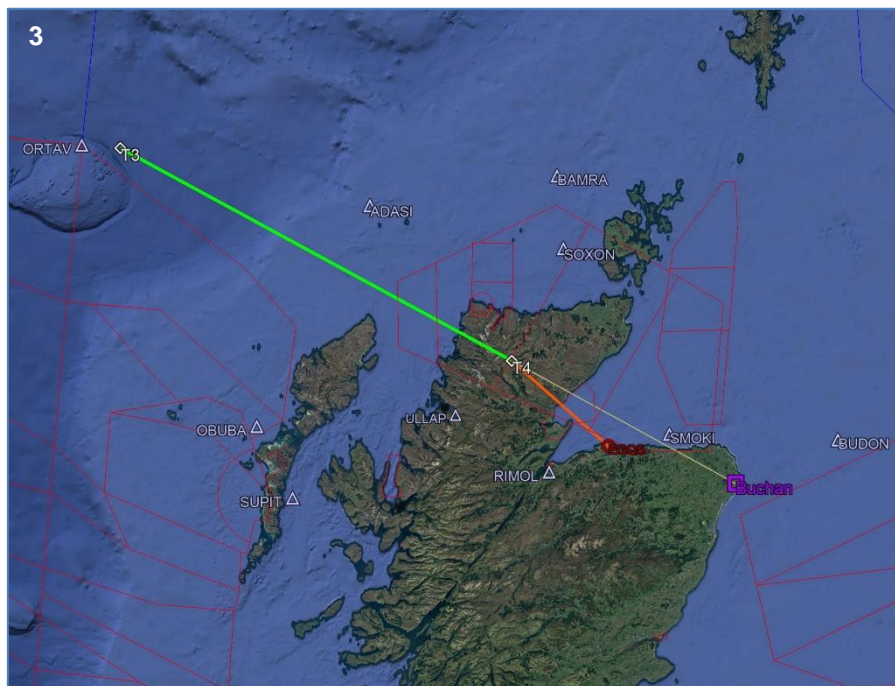
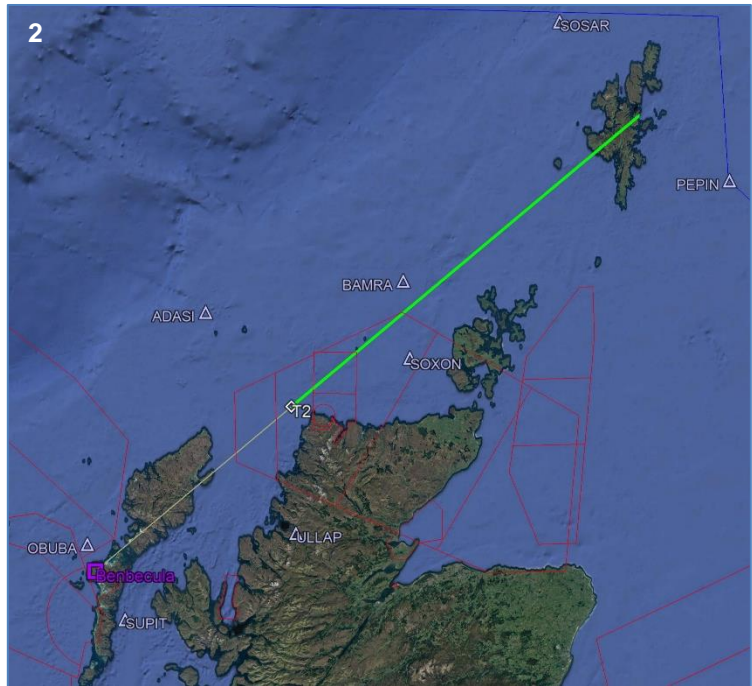
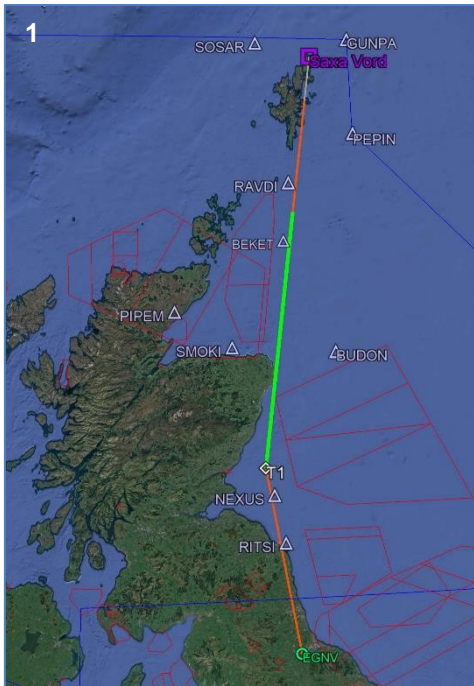
EGNV - N5630W00200 - N6050W00050 - N5840W00515 - N5930W00930 - N5815W00430 - EGQS

TEESSIDE - PLUTO NORTH CHARTS

Orange – expected flight track (non-measured & subject to ATC requirements)

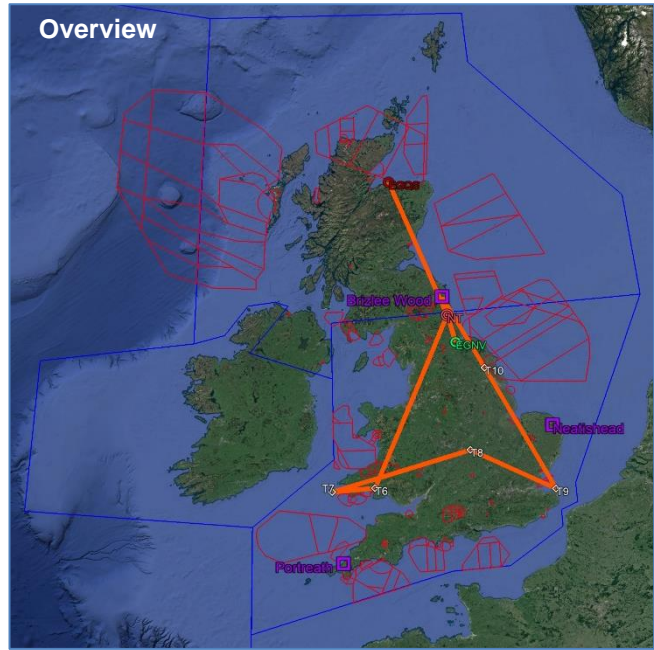
Green – Measured Run (NDS)

Grey – Track extended towards the radar head (not flown)



d. Teesside (PLUTO South)

<u>WAYPOINT</u>	<u>POSITION</u>
EGQS – Lossiemouth	
T5 (NT NDB)	55 03 00N 001 38 00W
T6	51 45 00N 004 15 00W
Portreath	50 16 00N 005 16 00W
T7	51 42 00N 005 34 00W
T8	52 23 00N 001 13 00W
Neatishead	52 42 00N 001 28 00E
T9	51 26 00N 001 22 00E
T10	53 58 00N 000 33 00W
Brizlee Wood	55 25 00N 001 46 00W
EGNV – Teesside	



Total = 2hrs 40min

Climb to FL380 will take 180nm.

The radar calibration requires runs from 260nm to 100nm. The route may be tactically changed to gain distance from the next radar head once 100nm is achieved from the current target.

Brizlee Wood, Portreath and Neatishead are aiming waypoints to enable crews to drive directly at the target radar if their routing is altered by ATC. **In all instances the aircraft shall break off approx. 100nm prior to the radar being assessed.**

Expected FPL Route:

EGQS - N5503W00138 - N5145W00415 - N5142W00534 – N522300W0011300 - N5126E00122 - N5358W00033 - EGNV

TEESSIDE - PLUTO SOUTH CHARTS

- Orange – expected flight track (non-measured & subject to ATC requirements)
- Green – Measured Run (NDS)
- Grey – Track extended towards the radar head (not flown)

