

AIRSPACE CO-ORDINATION NOTICE

Safety and Airspace Regulation Group



ACN Reference:	Version:	Date:	Date of Original
2021-07-0028	1.0	18/06/2021	11/05/2021

EXERCISE TYPHOON WARRIOR - 21

MILITARY EXERCISE

Subject to NOTAM: Yes (by Airspace Regulation)

Date(s) of activity/Validity:	Times (ALL TIMES UTC)
15 th July 2021 – 26 th August 2021	08:30 – 14:15

Vertical Limits:	Allocated Mode 3A (SSR):
SFC – FL660	Tactically Issued by ATC

Aircraft Details:	NDS Approved:
See Section 2	Not Applicable

Event Sponsor(s):	Aircraft Operator(s):
<p>Combat Air Force Cdr RAF Marham King's Lynn Norfolk PE33 9NP 01760 444700</p>	<p>Draken Aviation Ministry of Defence (MoD) United States Air Force (USAF)</p>

ATS Units/ Controlling Agencies:	Geographical Limits:								
<table border="0"> <tr> <td>CRC Scampton (19 Sqn) – FA</td> <td>01522 731625</td> </tr> <tr> <td>Swanwick Mil (78 Sqn) – East</td> <td>01489 612408</td> </tr> <tr> <td>Swanwick Mil (78 Sqn) North</td> <td>01489 612943</td> </tr> <tr> <td>UK E-3D Force – Sqn Ops</td> <td>01522 726707</td> </tr> </table>	CRC Scampton (19 Sqn) – FA	01522 731625	Swanwick Mil (78 Sqn) – East	01489 612408	Swanwick Mil (78 Sqn) North	01489 612943	UK E-3D Force – Sqn Ops	01522 726707	
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Airspace Reservations:	Geographical Limits:																																							
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Departure/Destination Aerodrome(s)	ACN Issued by:
EGNV, EGQS, EGUB, EGUL, EGUN, EGVN, EGVO, EGXC, EGXE, EGXW	AS3

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(Mil), Swanwick Mil (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 airspace and controlling agencies and coordination required to facilitate Exercise Typhoon Warrior 21 (TW21). TW21 is a Large Force Exercise involving up to 60 military aircraft operating in mixed formations including Fast Jets, Intelligence, Surveillance & Reconnaissance (ISR) aircraft, Air to Air Refuelling (AAR), and Air Mobility assets (both Fixed Wing and Rotary Wing). Exercise traffic will conduct air-to-air combat radar profiles (100nm+), supersonic flight, radar and communications jamming, and air combat serials. Airspace Control Orders will be issued separately by the sponsor to all control agencies.

16. **Project Officer.** The Exercise ProjO is:

Mr Mark Doney
Address: 29 Squadron, RAF Coningsby, Lincoln, LN4 4SY
Telephone: +44 (0)1526 346346 or 346351
E-Mail: mark.doney245@mod.gov.uk

17. **Dates.** TW21 is split into two phases including specific dates for Composite Air Operations (COMAO):

- a. TW21-1 12th July – 03rd August
 - i. COMAO: July - 15th, 20th, 22nd, 27th, 29th & August - 3rd
- b. TW21-2 16th August – 26th August
 - i. COMAO: August - 17th, 19th, 24th, 26th

18. **NOTAM.** NOTAM action has been taken by AROps to cover the exercise area: H2462/21 & H2465/21.

19. **Notification.** The sponsor is to notify the agencies listed on page one of this ACN, at least 4 hours prior to the first departure to confirm final details and availability of an ATS.

20. **Priority.** All exercise traffic has been categorised as CAT Z, (*CAP 493 – Section 1, Ch4, Para 10c refers,*) and attracts no priority. Within a Managed Danger Area, exercise traffic attracts Priority 2 (UK Mil AIP – ENR 5.1 refers)

21. **Air Traffic Service (ATS) Provision – Inside Controlled Airspace (CAS).** Access to controlled airspace is subject to the prevailing traffic situation and controller workload. Individual pilots are responsible for obtaining a clearance to enter controlled airspace prior to penetration.

22. **ATS Provision – Outside CAS.** The exercise is expected to be controlled by one of the following agencies:

- a. CRC Scampton
- b. Swanwick Mil (78 Sqn) – East & North
- c. UK E-3D Assets

23. **Danger Areas (DAs).** The sponsor is wholly responsible for the booking or suppression of those DAs that are to be used for the exercise. All other active DA are to be avoided unless a positive penetration clearance has been received by the range controlling authority.

24. **EG R446 Hartlepool & EG R516 Torness.** Access to the restricted airspace of Hartlepool and Torness requires a specific exemption issued by the CAA, for any aircraft that is civil registered or operated by civilian aircrew, in accordance with [Statutory Instrument \(SI\) 2016 No 1003 The Air Navigation \(Restriction of Flying\) \(Nuclear Installations\) Regulations 2016](#).

25. For military registered aircraft operated by military aircrew, these regulations do not apply in the same way, however the captain is responsible for obtaining the installation managers permission prior to penetration. Contact details for each installation can be obtained from the CAA (Airspace Regulation)

26. **Parachuting Sites.** Military aircraft shall avoid all parachuting sites notified as active. The following sites have been identified within the exercise area that may operate during the exercise:

- | | | |
|----------------|------------------|--------------|
| a. Bridlington | 540713N 0001411W | 01262 677367 |
| b. Errol | 562418N 0031055W | 01821 642454 |

SECTION 3

Exercise Details

27. **Operating Area.** The exercise area has been notified as a polygon bounded by the following points, but excluding Class A and D airspace:

574800N 0002400E - 544500N 0025700E - 542300N 0024500E - 533000N 0030000E - 531600N 0030000E - 532000N 0023000E - 531200N 0023000E - 530900N 0020600E - 532200N 0000400E - 534300N 0000800W - 544200N 0011400W - 550300N 0014100W - 550600N 0013800W - 552600N 0023700W - 553800N 0025100W - 560000N 0024900W - 560700N 0025600W - 560700N 0033000W - 561400N 0033200W - 562400N 0031500W - 571600N 0021000W

28. Activity may be conducted in both segregated and unsegregated airspace, in Class C (VFR) and Class G.

29. In Class C, but outside of segregated airspace, normal ATC procedures apply. **No ATS route structures have been suppressed for this exercise and military controlling agencies are wholly responsible for the avoidance of all GAT and maintenance of standard separation.**

30. Fast Jet, Tactical Air Transport, and helicopter assets will use the UK Low Flying System overland Yorkshire (LFAs 11 & 12) and Northumberland and the Scottish Borders (LFAs 12, 14, & 16); operating ivo RAF Boulmer, Brunton Airfield, Charter Hall Airfield, Driffield Airfield, Garton Airfield, Alnwick, and East Fortune. Participating are responsible for their own LF bookings.

31. In all instances, aircraft and controlling agencies should avoid operating in the vicinity of non-exercise airfields.

32. **SSR Allocation.** In addition to using the existing ATM allocation, the following M3 codes have been temporarily allocated to the exercise for the duration (NOTAM B1207/21 refers):

- a. 0100, 0200, 0300, 0400, 0500, 0600, and 0700
- b. 1510 – 1577
- c. 2400 – 2477

33. **Participating Aircraft.** The following aircraft types are expected to participate:

- a. Combat Air: F15, Typhoon
- b. Target Aircraft: DA20, Hawk
- c. Helicopters: Apache, Chinook, Puma
- d. ISR: Rivet Joint, Sentry
- e. AAR: Voyager
- f. Transport: Hercules

34. **Airborne Early Warning (AEW) and ISR.** AEW aircraft will primarily utilise existing E3 operating areas 3, 5 or 13, which are subject to normal activation and coordination procedures, with bookings coordinated by 8 Sqn Ops. Both AEW and ISR aircraft may operate tactically within the confines of EG D323 and or EG D613. All aircraft will establish within their operating areas between 08:00 & 09:00 UTC.

35. **Air to Air Refuelling (AAR).** AAR is planned to take place within Air to Air Refuelling Areas (AARAs) 5 and 8, as well as tactically within segregated airspace. A request has been made to Tanker Plans to suppress bookings of AARA 6, whilst the exercise retains the right to request activation of AARA 7 if required. All AAR assets will be established inside the AARAs from 08:00 UTC.

36. **Tactical Packages.** Aircraft shall begin forming up within the respective hold areas from 08:00 UTC

37. **Jamming.** Jamming may take place on designated military communications and radars throughout the operating period and is subject to approval by the Joint Spectrum Authority following the submission of a Jamming Safety Case. It is expected that selected frequencies may be severely affected which could lead to loss of R/T contact. **Control agencies which experience jamming of an unacceptable level should contact either the Swanwick Mil (78 Sqn) East Supervisor on 01489 612408 or the Distress & Diversion (D&D) cell on 01489 612406 to coordinate cessation. All cease jamming calls shall be made on 243.00 MHz.**

38. **Exercise Waves.** The following waves have been notified (VUL – Wave Vulnerability):

<u>Mission Type</u>	<u>Date</u>	<u>VUL Time</u>	<u>Airspace Booking Times</u>	<u>Airspace</u>
DCA	15 Jul	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B
DCA	20 Jul	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B
DCA	22 Jul	0900 – 1400Z	08:30 – 14:15	D323 – D513, TRAs 6, 7B
OCA	27 Jul	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 11 & 12
OCA	29 Jul	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 11 & 12
OCA	3 Aug	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 11 & 12
ATTACK	17 Aug	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 12, 14, & 16
ATTACK	19 Aug	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 12, 14, & 16
ATTACK	24 Aug	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 12, 14, & 16
ATTACK	26 Aug	0900 – 1100Z	08:30 – 11:15	D323 – D513, TRAs 6, 7B, LFAs 12, 14, & 16

SECTION 4

Area of Operation

39. Charts highlighting the area of operation are shown below. This is for illustrative purposes only not for operational planning and do not show LFA's or Orbit Areas.

Chart 1 – Overview

Exercise operating area shown in purple (excluding E3 orbit areas)

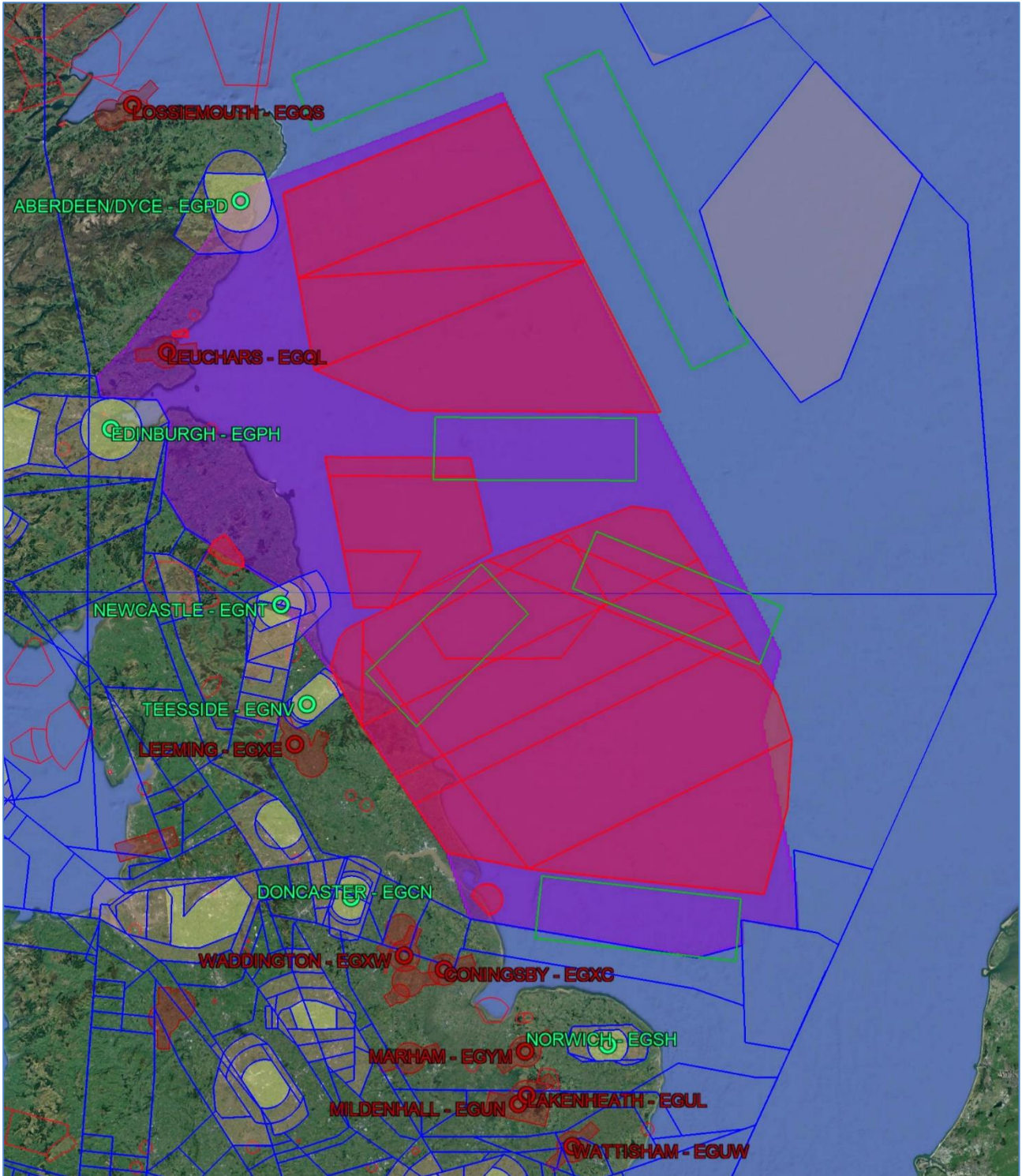


Chart 2 – DCA Mission Operating Area
D323 Complex & D513 Complex

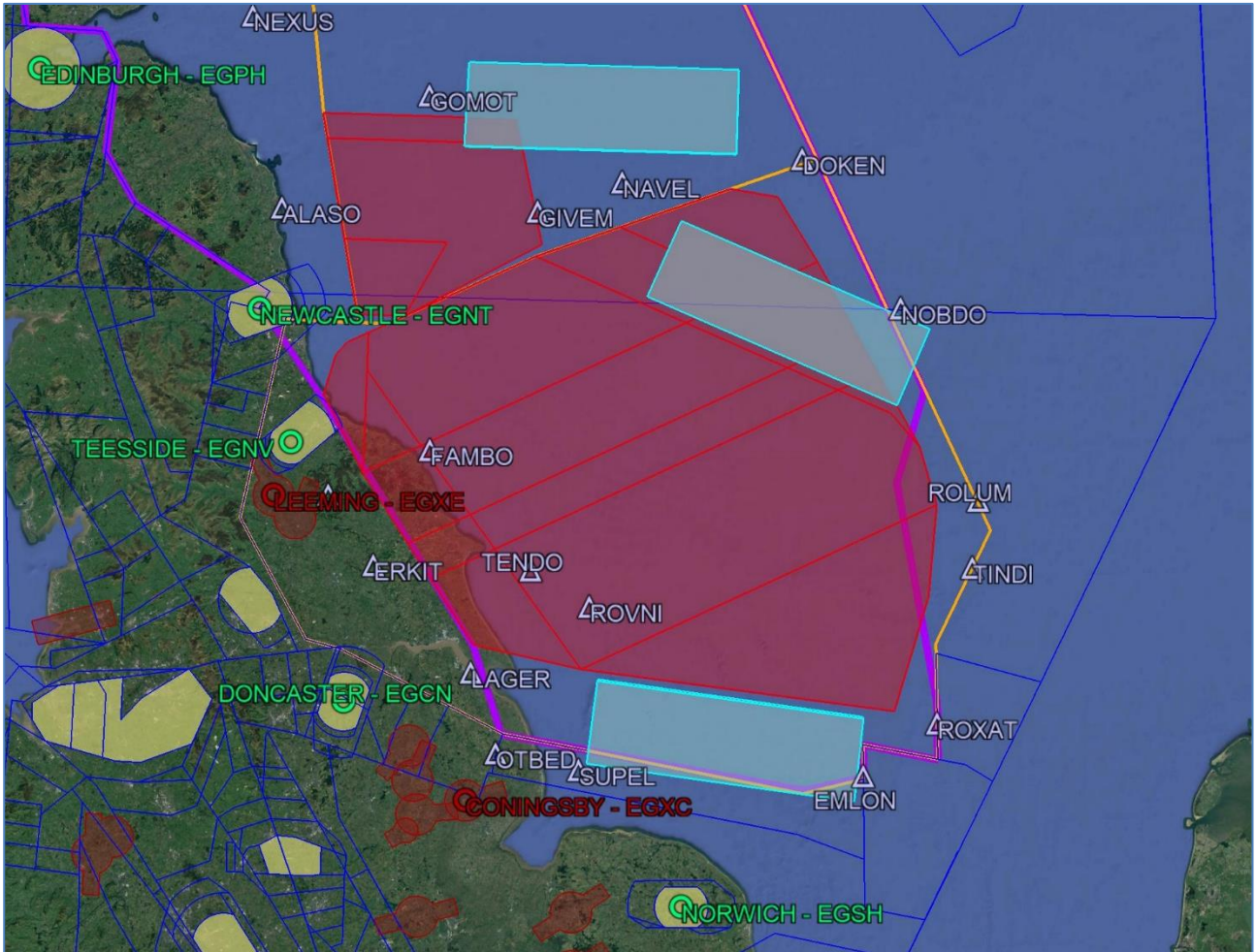


Chart 3 – OCA Mission Operating Area
D323 – D513, TRAs 6, 7B, LFAs 11 & 12 (LFA's Not Shown)

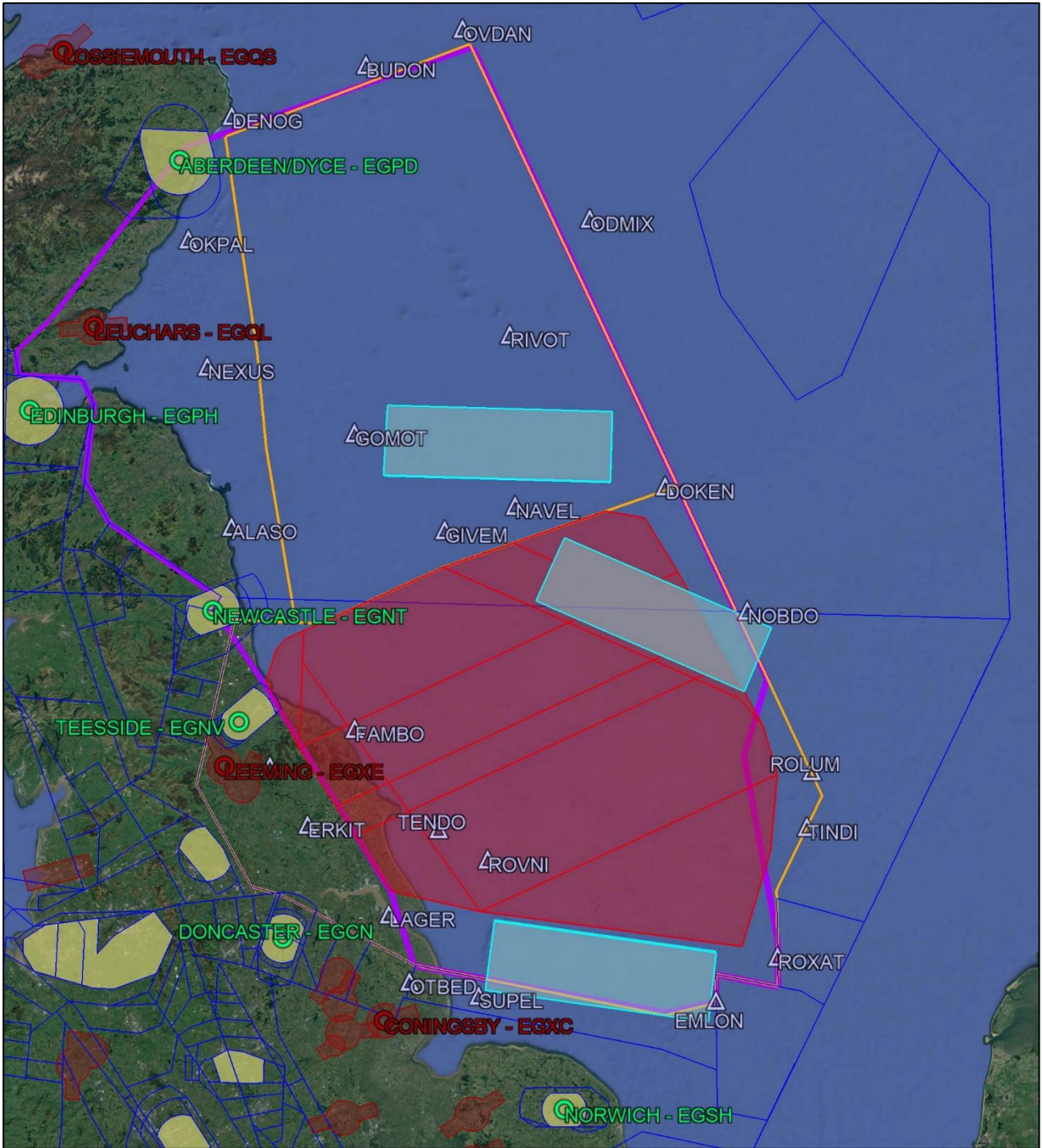


Chart 4 – ATTACK Mission Operating Area
D323 – D513, TRAs 6, 7B, LFAs 12, 14, & 16 (LFA's Not Shown)

