

# AIRSPACE CO-ORDINATION NOTICE

Safety and Airspace Regulation Group



ACN Reference:	Version:	Date:	Date of Original
2022-04-0171	1.0	01/04/2022	23/03/2022

## NAVAID COMMISSIONING CALIBRATION LAKENHEATH TACAN

**NDS**

Subject to NOTAM: No

Date(s) of activity/Validity:	Times (ALL TIMES UTC)
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10 <sup>th</sup> April 2022 – 15 <sup>th</sup> April 2022	08:00 – 17:00
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Vertical Limits:	Allocated Mode 3A (SSR):
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1,000ft <b>AGL</b> – FL60	0024
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Aircraft Details:	NDS Approved:
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Type: CL600 Callsign: FLCxx "FlightCheck"	<b>Yes</b> – Subject to the conditions in Section 2
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Event Sponsor(s):	Aircraft Operator(s):
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RAPCON 48th Operations Support Squadron RAF Lakenheath United Kingdom 01638 523760	Federal Aviation Administration 6500 S. MacArthur Blvd Oklahoma City Oklahoma 73169 +1 (405) 954-9780  This aircraft is designated <b>STATE</b>
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ATS Units/ Controlling Agencies:	Geographical Limits:
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Lakenheath 01638 523760 Marham 01760 334949 Norwich 01603 420641 Southend 01702 538420 Swanwick LTC – SWA 02380 401110 Wittering 01780 417050  <i>Info: EG D207, Cambridge, Coningsby, Honington, Wattisham,</i>	
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Airspace Reservations:
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EG D206 Cardington 01234 744658 EG D208 Stanford 01842 855167 EG R217 Sizewell SI 1003/2016	
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Departure/Destination Aerodrome(s)	ACN Issued by:
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EGUL	AS3
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## **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](mailto:AROps@caa.co.uk)  
Tel: 01293 983880

## SECTION 2: CO-ORDINATION ARRANGEMENTS (SPECIFIC)

15. This document details the profile required to conduct the commissioning calibration of the new RAF Lakenheath Tactical Air Navigation (TACAN) system. The calibration is broken into three elements: the orbit, radials and the approach segments.

16. **Dates.** The notified date for this check is Monday 11<sup>th</sup> April 2022 however, to allow for delays, the ACN is valid for the whole week.

17. **Notification.** 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.

18. **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. Whilst no FPL is required to be filed for this activity, ATS units are to be aware that the flight is designated as STATE<sup>1</sup> and would be exempt from any ATC Flow Control Measures.

19. **Air Traffic Service (ATS) Provision – 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.

20. **ATS Provision – Outside CAS.** The calibration area is within the coverage of the following units:

- |              |             |
|--------------|-------------|
| a. Marham    | 124.150 MHz |
| b. Norwich   | 119.355 MHz |
| c. Southend  | 130.780 MHz |
| d. Wittering | 119.675 MHz |

21. Availability of an ATS from a unit is not guaranteed, is subject to controller availability, unit workload and possible reduced hours of operations. Amendments to the published hours of availability, as listed in the UK AIP ENR 1.6 – Para 4.1, AD2 or UK Military AIP, shall be notified via NOTAM.

22. **Coordination with Adjacent Units.** RAPCON are responsible for coordinating with all external agencies. In addition to the major aerodromes, whilst conducting the 40nm orbit, in order to increase situational awareness for all operators, the pilot is strongly encouraged to make 2-way contact with aerodromes that are within 3nm of the track. This includes:

- |               |             |
|---------------|-------------|
| a. Bedford    | 119.030 MHz |
| b. Old Warden | 130.705 MHz |

23. **EG R217 (Sizewell).** In accordance with [The Air Navigation \(Restriction of Flying\) \(Nuclear Installations\) Regulations 2016](#) – Statutory Instrument No.1003/2016, access to the restricted airspace of Sizewell, for civil registered aircraft, is subject to a separate specific approval from the CAA. Military Aircraft and foreign aircraft with STATE status are exempt from this restriction, **but are required to inform the installation manager (01728 653720) of the intended flight profile and shall refrain from flying directly overhead the reactor buildings.**

24. **Danger Areas (DAs).** Access to any DA is subject to site requirements and access is not guaranteed. The sponsor is to engage with the DA Authority at the earliest opportunity to coordinate access, noting that access may only be possible outside notified operating hours.

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<sup>1</sup> UK AIP GEN 1.9 (12.5.2)

25. **Serials.** The aircraft is required to conduct the profiles listed below, however further serials may need to be requested ad-hoc, subject to the results. Most activity will take place within 20nm of Lakenheath, however some elements may extend to 40nm.

26. **40nm Orbit.** The aircraft is required to conduct a minimum of one anti-clockwise orbit between 1000ft and 2,000ft **AGL** maintaining 230kts. In order to reduce the impact to Luton and Stansted, the aircraft is requested to start just to the north of Luton, in anticipation of a gap in traffic. The aircraft may be required to hold briefly, under the control of Luton Radar, in order to best fit in into both airfields sequences.

27. Whilst the operator has requested for flight AGL and in reference to the pressure at Lakenheath, whilst inside CAS, the aircraft may be required to operate in reference to an altitude on the appropriate QNH – the pilot is responsible for making the necessary conversion and informing ATC of the requirement.

28. Should any element of the orbit fail, the aircraft will require to break off and conduct a radial from the TACAN out towards 40nm, starting at 1,000ft AMSL, then increasing by 100ft each time until they reach the reading required. Flights within Class A CAS are unlikely to be approved unless traffic permits.

### **GENERIC**

<u>Serial</u>	<u>Hgt/Alt/FL<sup>2,3</sup></u>	<u>Range</u>	<u>Profile</u>	<u>Remarks</u>
1	6,000ft	10nm	Anti-clockwise Orbit	TX1 <i>See Charts 2 &amp; 3</i>
2	6,000ft	10nm	Anti-clockwise Orbit	TX2 <i>See Chart 2 &amp; 3</i>
3	1,000ft – 2,000ft <b>AGL</b>	40nm	Anti-clockwise Orbit	<b>See Paras 27 - 29</b> <i>See Charts 4 &amp; 5</i>
4	6,000ft	5nm – 15nm	Alignment Radial – 234°	TX1 <i>See Charts 6 &amp; 7</i>
5	6,000ft	5nm – 15nm	Alignment Radial – 234°	TX2 <i>See Charts 6 &amp; 7</i>

### **TACAN (HI/LO) – RWY24**

<u>Serial</u>	<u>Hgt/Alt/FL</u>	<u>Range</u>	<u>Profile</u>	<u>Remarks</u>
6	As Per Procedure	40nm - THLD	HI/LO TACAN RWY24	TX1 <i>See Chart 8</i>
7	As Per Procedure	8nm - 2nm	RWY24 – Centreline	TX1 <i>See Charts 9 &amp; 10</i>
8	As Per Procedure	8nm - 2nm	RWY24 – 5° Left of CL	TX1 <i>See Charts 9 &amp; 10</i>
9	As Per Procedure	8nm - 2nm	RWY24 – 5° Right of CL	TX1 <i>See Charts 9 &amp; 10</i>
10	As Per Procedure	40nm - THLD	HI/LO TACAN RWY24	TX2 <i>See Chart 8</i>
11	As Per Procedure	8nm - 2nm	RWY24 – Centreline	TX2 <i>See Charts 9 &amp; 10</i>
12	As Per Procedure	8nm - 2nm	RWY24 – 5° Left of CL	TX2 <i>See Charts 9 &amp; 10</i>
13	As Per Procedure	8nm - 2nm	RWY24 – 5° Right of CL	TX2 <i>See Charts 9 &amp; 10</i>

### **TACAN (HI/LO) – RWY06**

<sup>2</sup> Altitudes are in reference to the Lakenheath QNH – Elevation 32ft.

<sup>3</sup> Transition Altitude is 3,000ft, except within the lateral boundary of the London TMA, where it is 6,000ft.

<u>Serial</u>	<u>Hgt/Alt/FL</u>	<u>Range</u>	<u>Profile</u>	<u>Remarks</u>
14	As Per Procedure	22nm - THLD	HI/LO TACAN RWY06	TX1 <i>See Chart 11</i>
15	As Per Procedure	8.9nm - 2.9nm	RWY06 – Centreline	TX1 <i>See Charts 12 &amp; 13</i>
16	As Per Procedure	8.9nm - 2.9nm	RWY06 – 5° Left of CL	TX1 <i>See Charts 12 &amp; 13</i>
17	As Per Procedure	8.9nm - 2.9nm	RWY06 – 5° Right of CL	TX1 <i>See Charts 12 &amp; 13</i>
18	As Per Procedure	22nm - THLD	HI/LO TACAN RWY06	TX2 <i>See Chart 11</i>
19	As Required	13nm ARC	287° to 238°	TX2 <i>See Charts 14 &amp; 15</i>
20	As Per Procedure	8.9nm - 2.9nm	RWY06 – Centreline	TX2 <i>See Charts 12 &amp; 13</i>
21	As Per Procedure	8.9nm - 2.9nm	RWY06 – 5° Left of CL	TX2 <i>See Charts 12 &amp; 13</i>
22	As Per Procedure	8.9nm - 2.9nm	RWY06 – 5° Right of CL	TX2 <i>See Charts 12 &amp; 13</i>

### **TACAN A – RWY24**

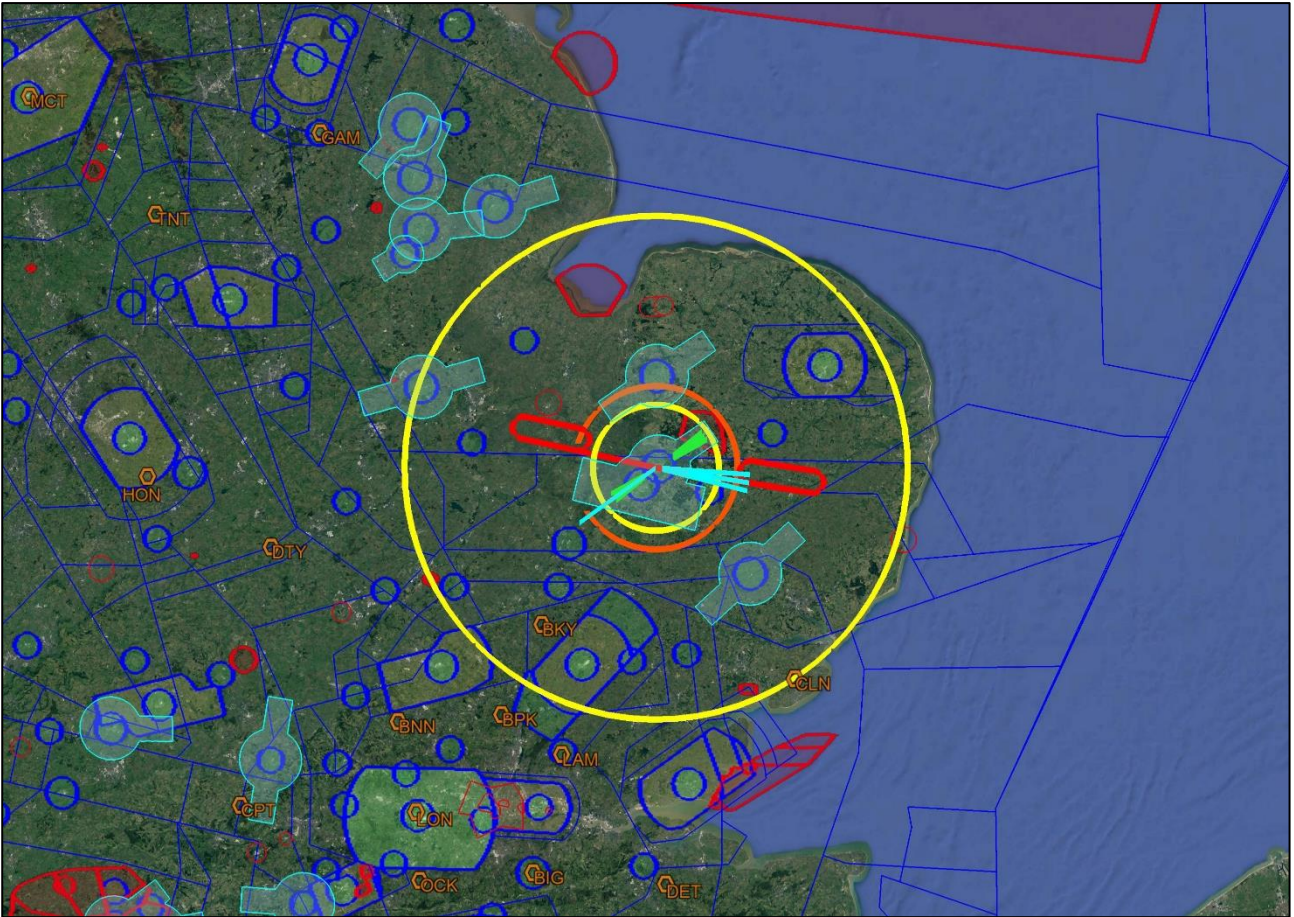
23	As Required	15nm - 1nm	Radial Inbound 099°	TX1 <i>See Charts 16, 17 &amp; 18</i>
24	As Required	15nm - 1nm	Radial Inbound 094°	TX1 <i>See Charts 19 &amp; 20</i>
25	As Required	15nm - 1nm	Radial Inbound 104°	TX1 <i>See Charts 19 &amp; 20</i>
26	As Required	15nm - 1nm	Radial Inbound 099°	TX2 <i>See Charts 16, 17 &amp; 18</i>
27	As Required	15nm - 1nm	Radial Inbound 094°	TX2 <i>See Charts 19 &amp; 20</i>
28	As Required	15nm - 1nm	Radial Inbound 104°	TX2 <i>See Charts 19 &amp; 20</i>
29	2,000ft <b>AGL</b>	15nm - 25nm	Eastern Hold 099°	2 x Turn Ins <i>See Charts 21 &amp; 22</i>
30	3,000ft <b>AGL</b>	13nm - 22nm	Western Hold 282°	2 x Turn Ins <i>See Chart 21 &amp; 22</i>

## SECTION 3

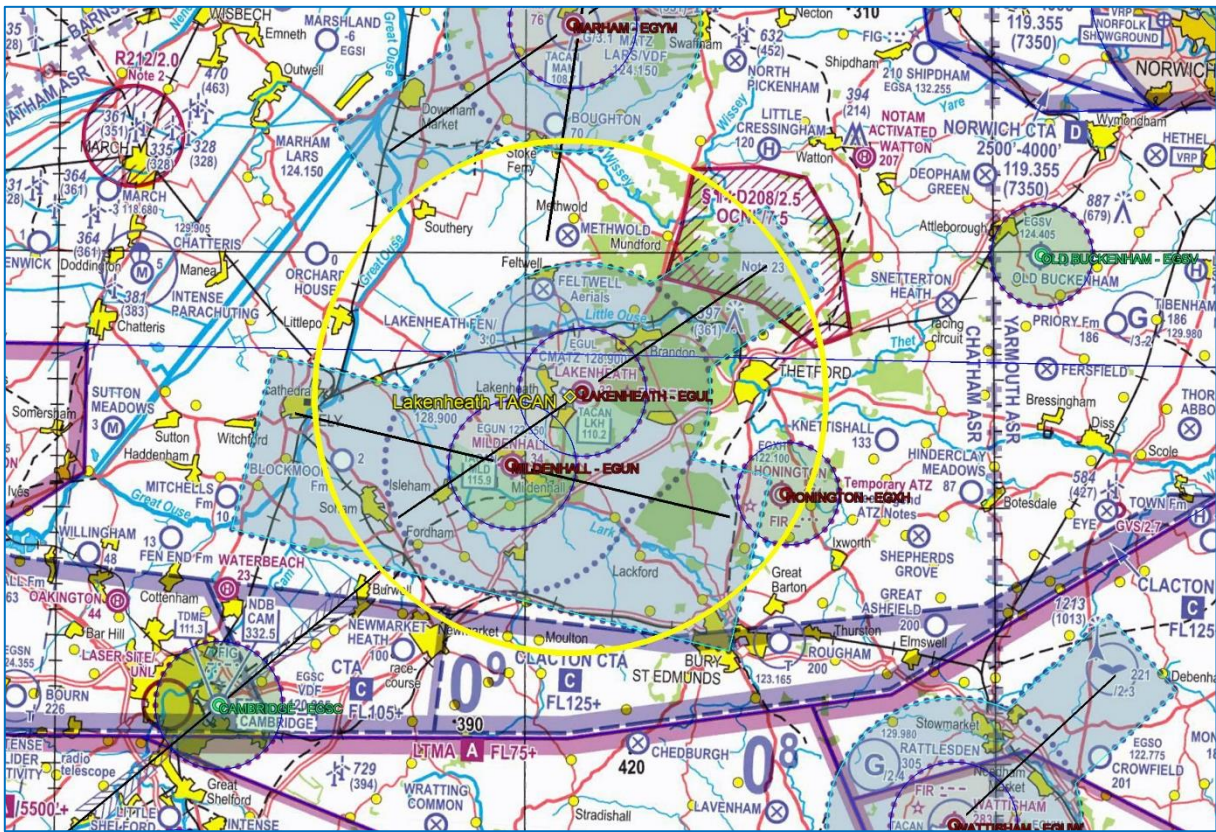
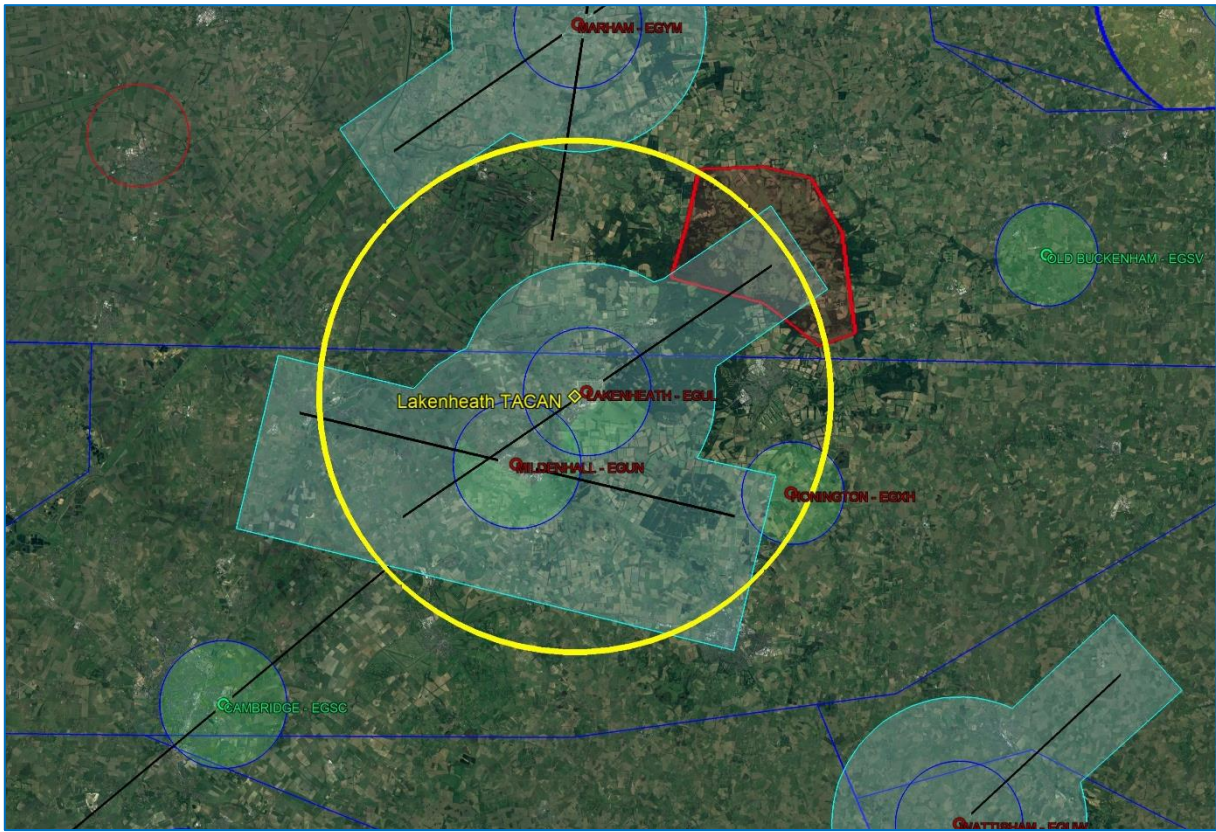
### Area of Operation

29. Charts highlighting the area of operation are shown below. These are for illustrative purposes only and not for operational planning.

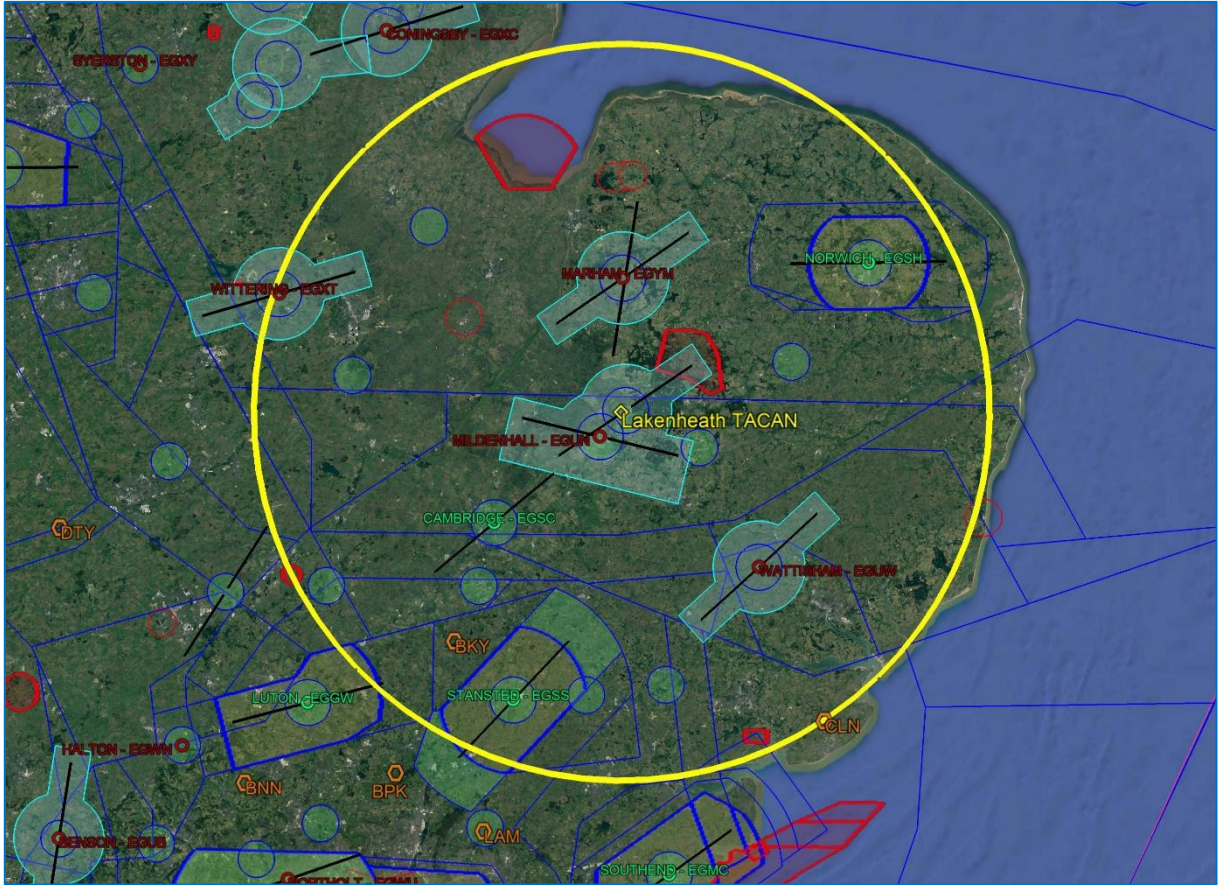
Chart 1 – Overview



Charts 2 & 3 – Serials 1 & 2  
10nm Orbit - 6,000ft



**Charts 4 & 5 – Serial 3**  
40nm Orbit - 1,000ft to 2,000ft **AGL** (UL QFE or QNH – See Para 28)





Charts 6 & 7 – Serials 4 & 5  
5nm to 15nm Alignment Radial - 6,000ft

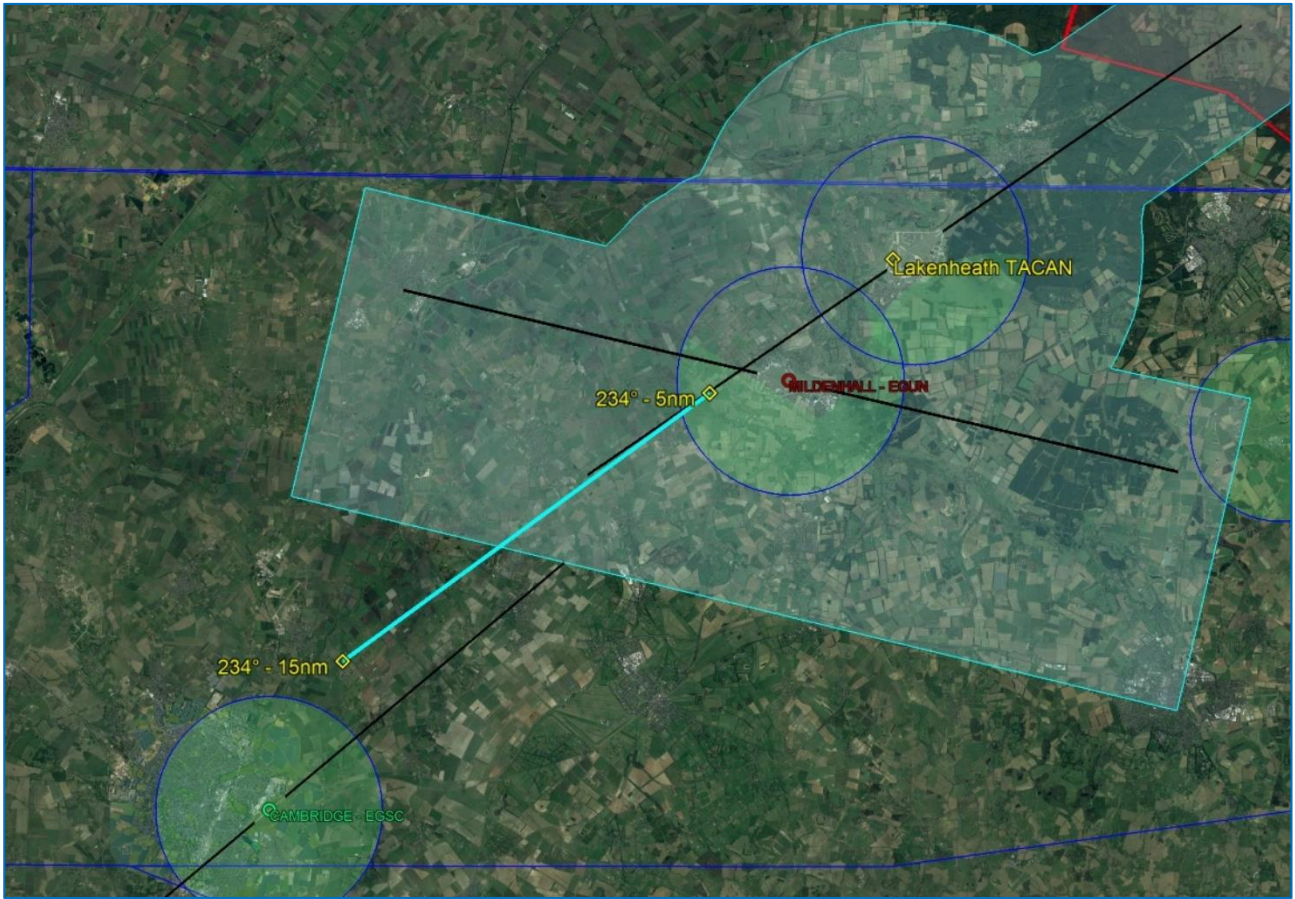
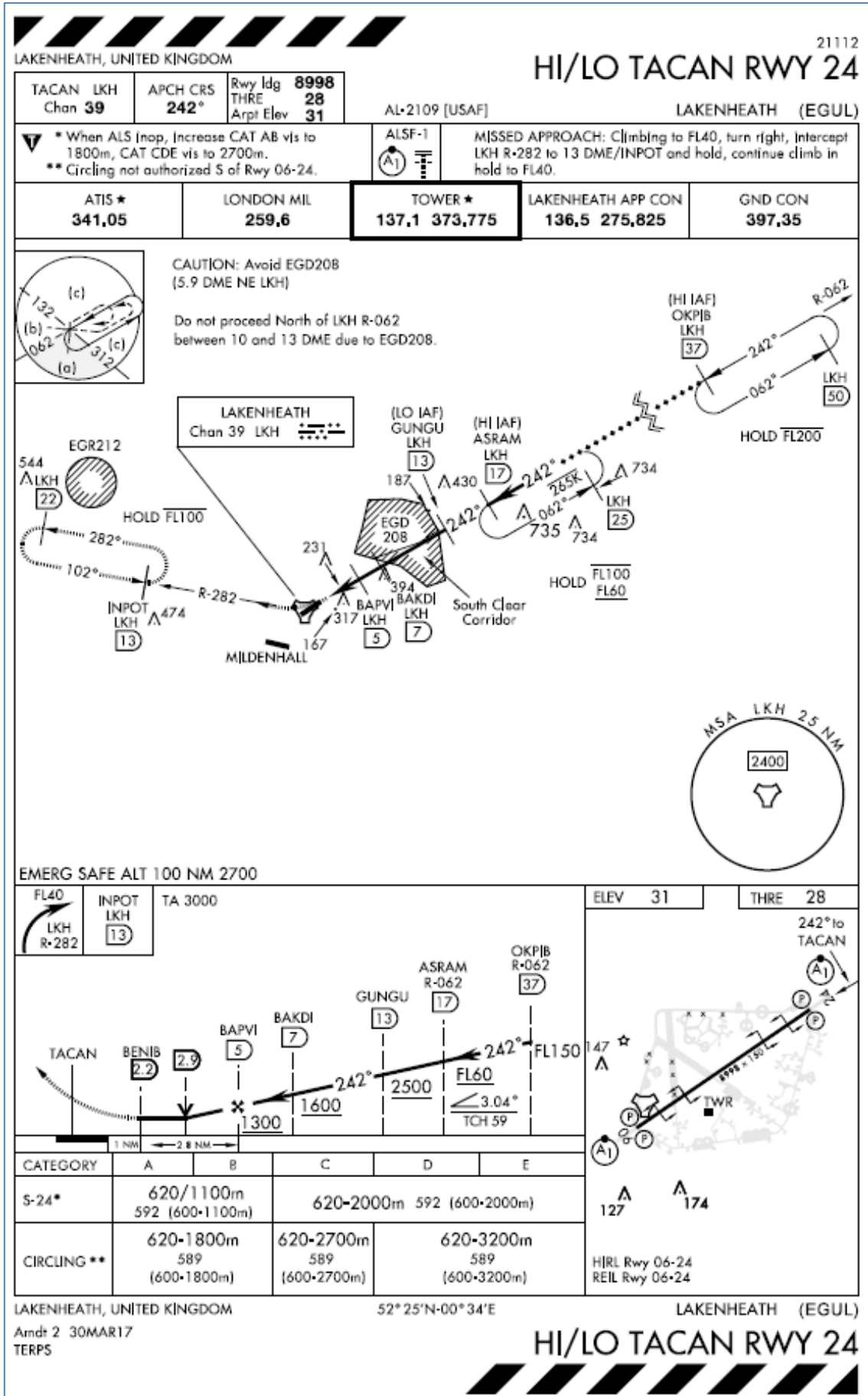


Chart 8 – Serials 6 & 10  
40nm to THLD



Charts 9 & 10 – Serials 7-9 & 11-13  
8nm to 2nm RWY24 Centreline & 5° Either Side of Track

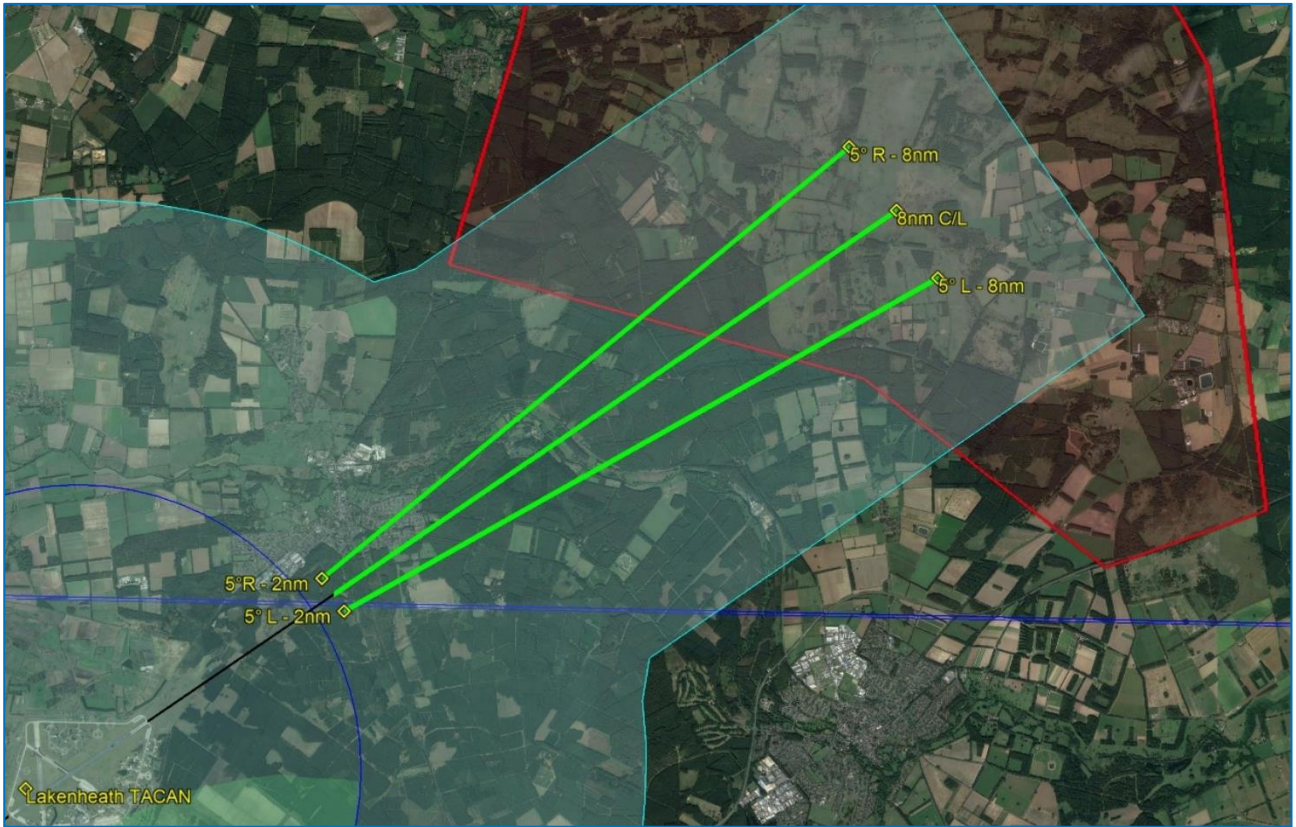
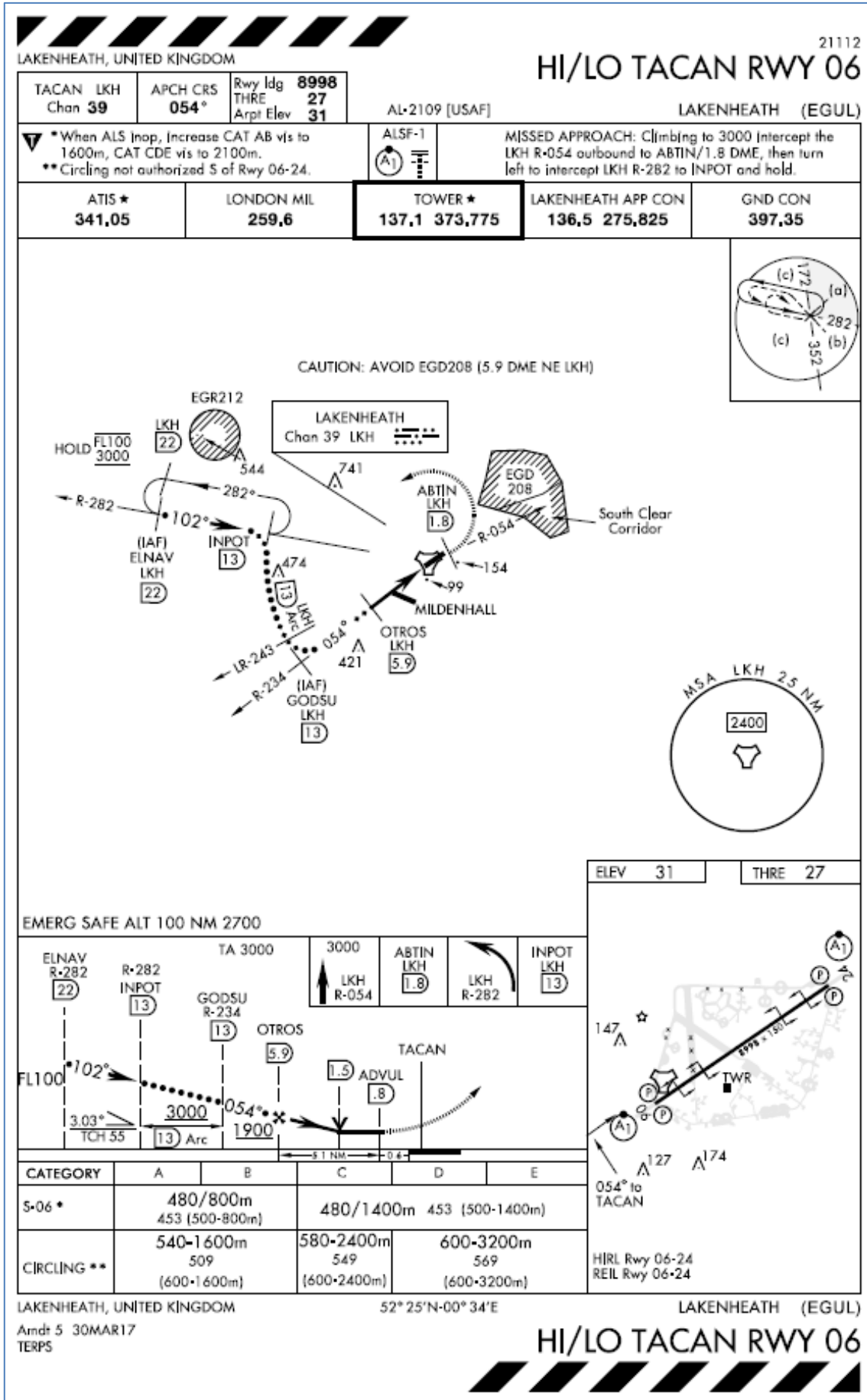
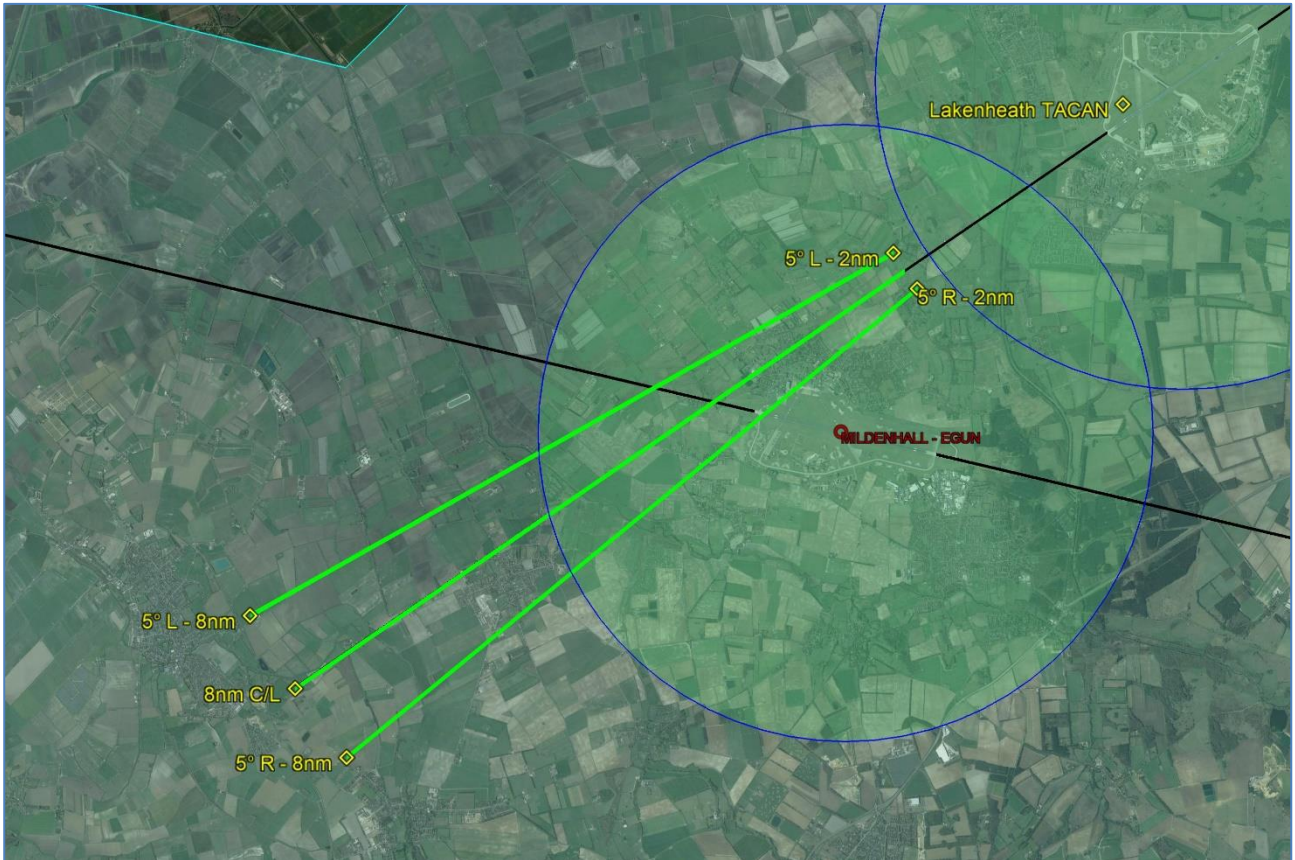


Chart 11 – Serials 14 & 18  
22nm to THLD



Charts 12 & 13 – Serials 15-17 & 20-23  
8.9nm to 2.9nm RWY06 Centreline & 5° Either Side of Track



Charts 14 & 15 – Serial 19  
13nm Arc – 287° to 238°

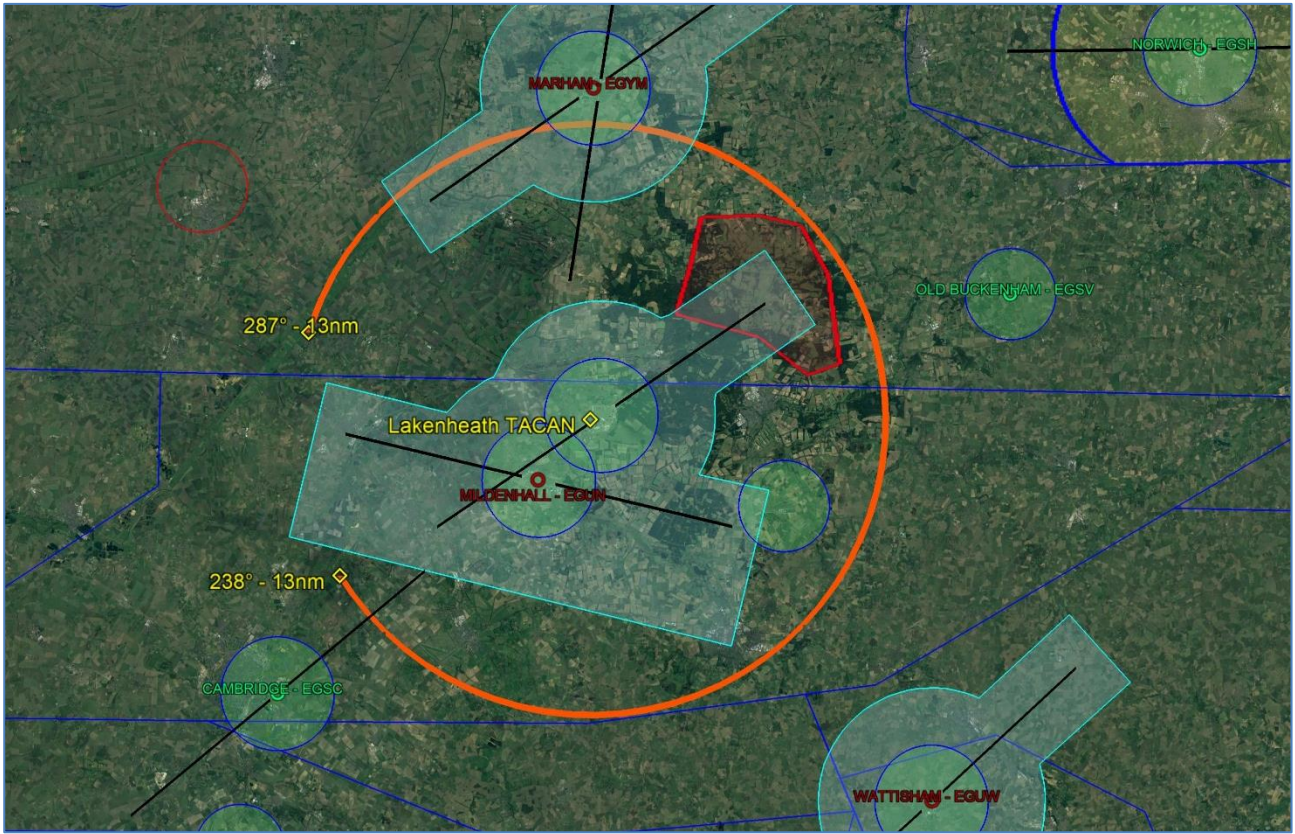


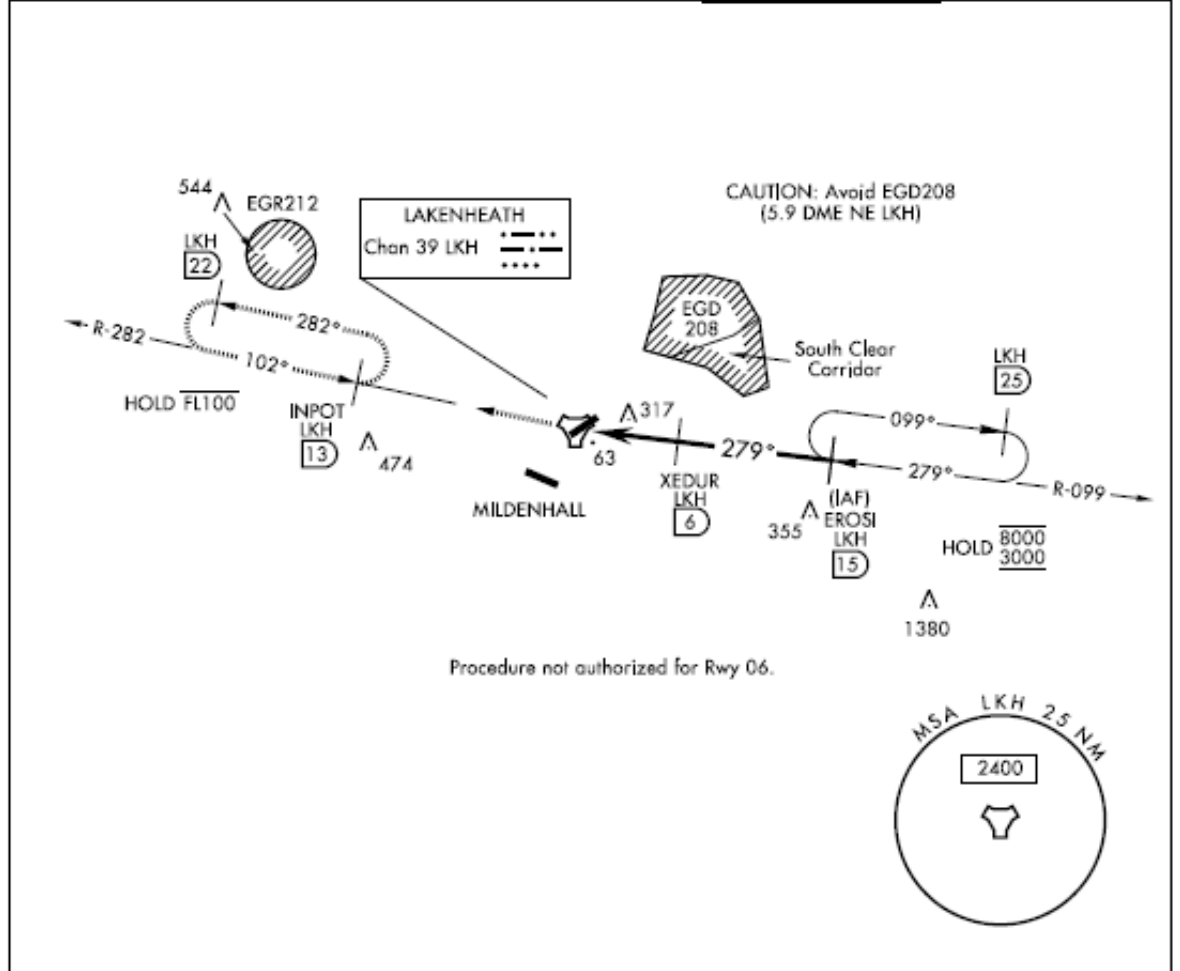
Chart 16 – TACAN A

21084

LAKENHEATH, UNITED KINGDOM

TACAN A

TACAN LKH Chan 39	APCH CRS 279°	Rwy Idg THRE Arpt Elev 8998 N/A 31	AL-2109 [USAF]	LAKENHEATH (EGUL)
RADAR required.		ALSF-1 		MISSED APPROACH: Climb to FL40, via LKH R-282 to 13 DME/INPOT and hold, continue climb in hold to FL40.
*Circling N of the Rwy for a right base. Circling not authorized S of LKH TACAN R-110-290.				
ATIS ★ 341.05	LONDON MIL 259.6	LAKENHEATH APP CON 136.5 275.825	<b>TOWER ★ 137.1 373.775</b>	GND CON 397.35



EMERG SAFE ALT 100 NM 2700

FL40	TA 3000	ELEV 31			
CATEGORY	A	B	C	D	E
CIRCLING *	620-1600m 589 (600-1600m)	620-2400m 589 (600-2400m)	620-2400m 589 (600-2400m)	620-3200m 589 (600-3200m)	620-3200m 589 (600-3200m)

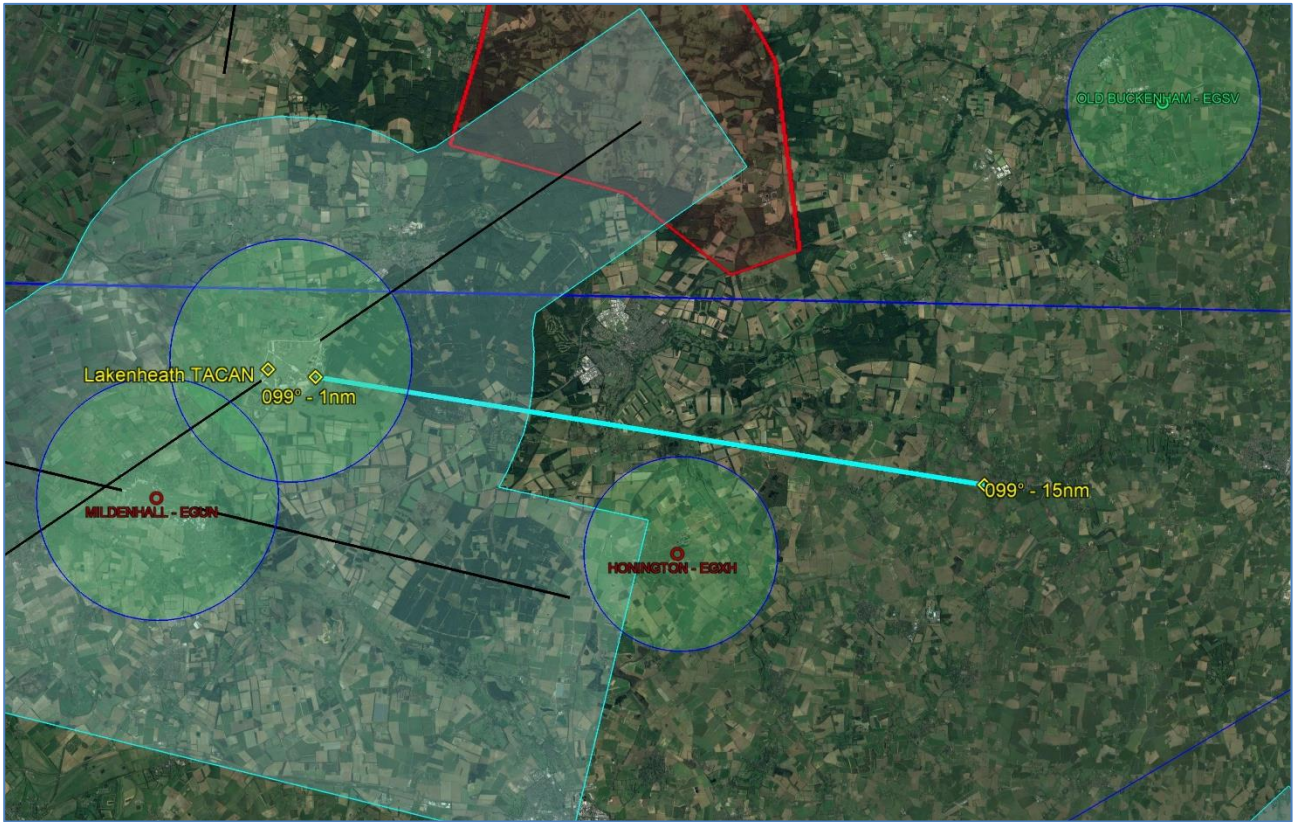
HJRL Rwy 06-24  
REIL Rwy 06-24

LAKENHEATH, UNITED KINGDOM 52° 25'N-00° 34'E LAKENHEATH (EGUL)

Orig 30MAR17 TERPS

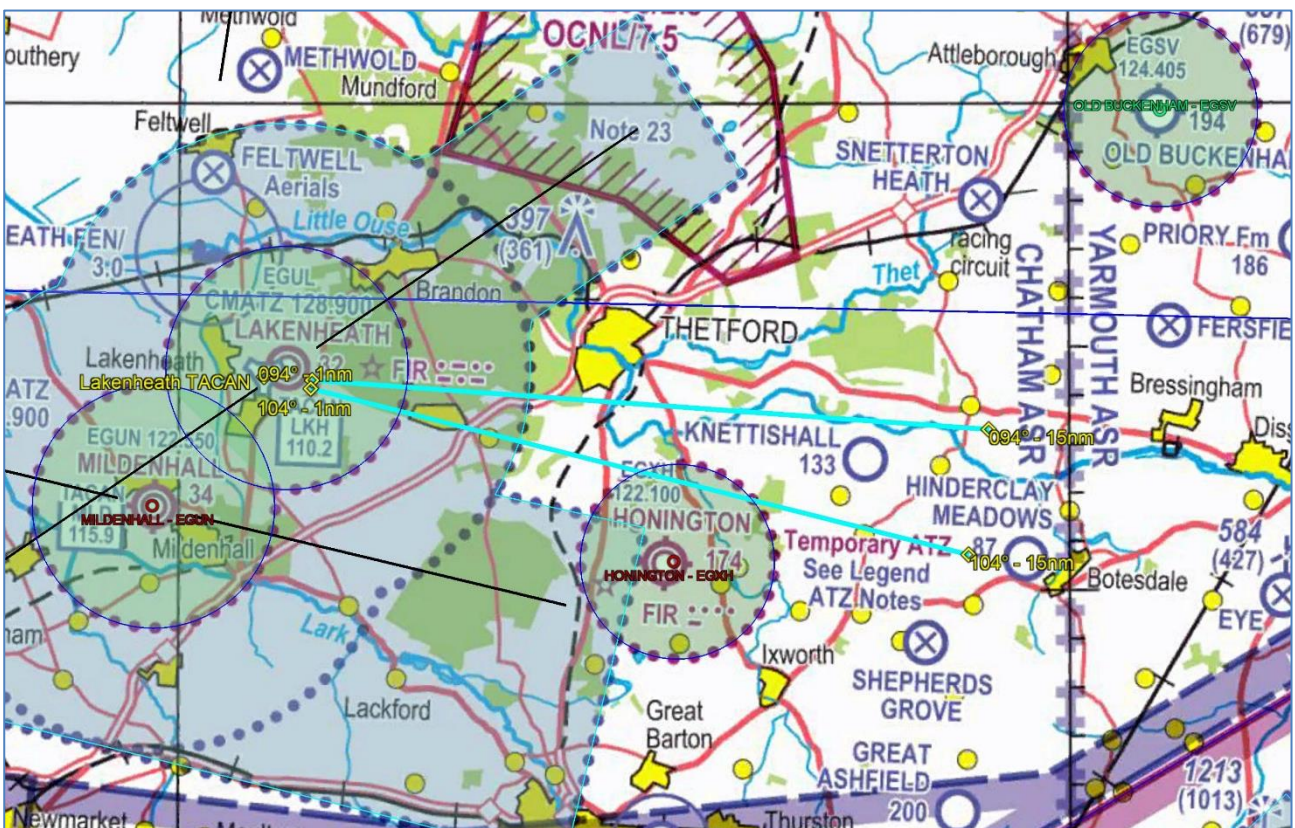
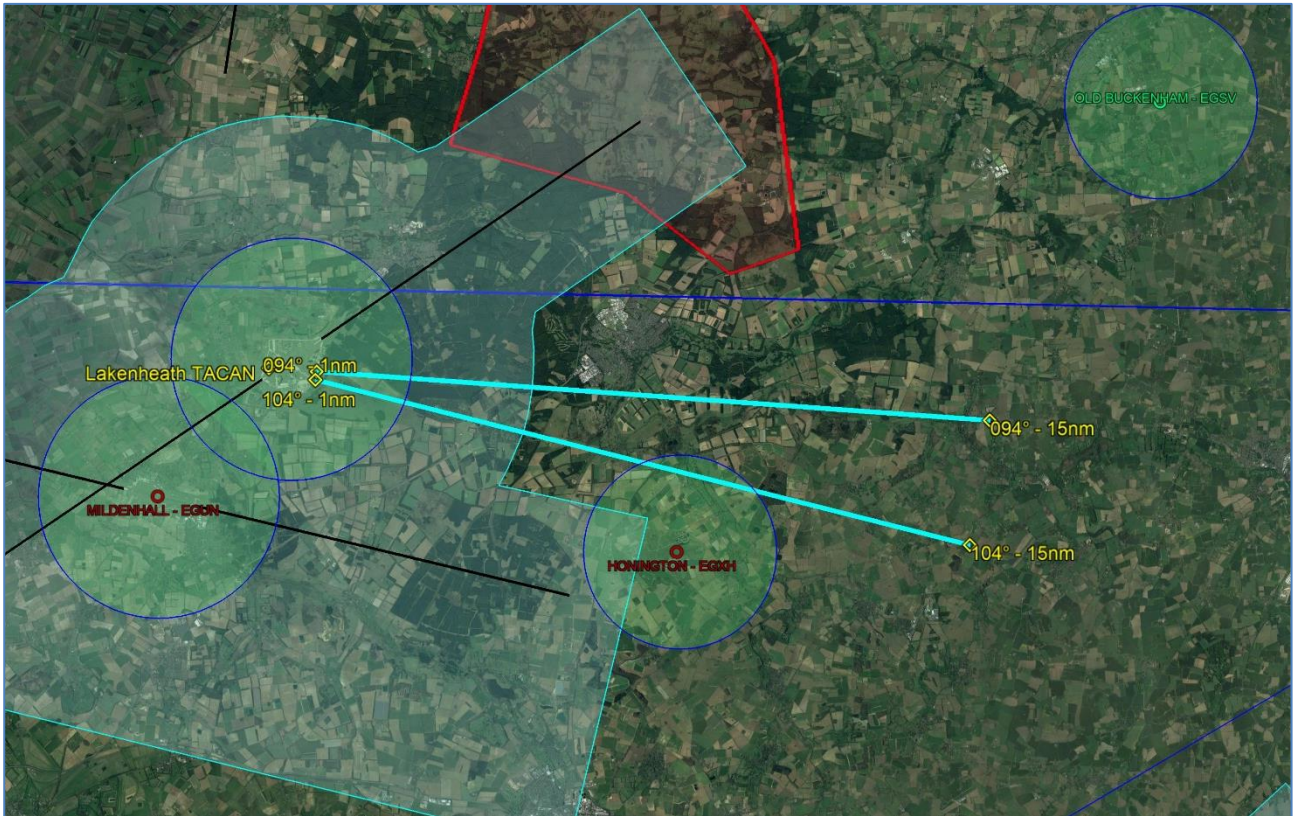
TACAN A

Charts 17 & 18 – Serials 23 & 26  
 15nm to 1nm – Inbound Radial 099°

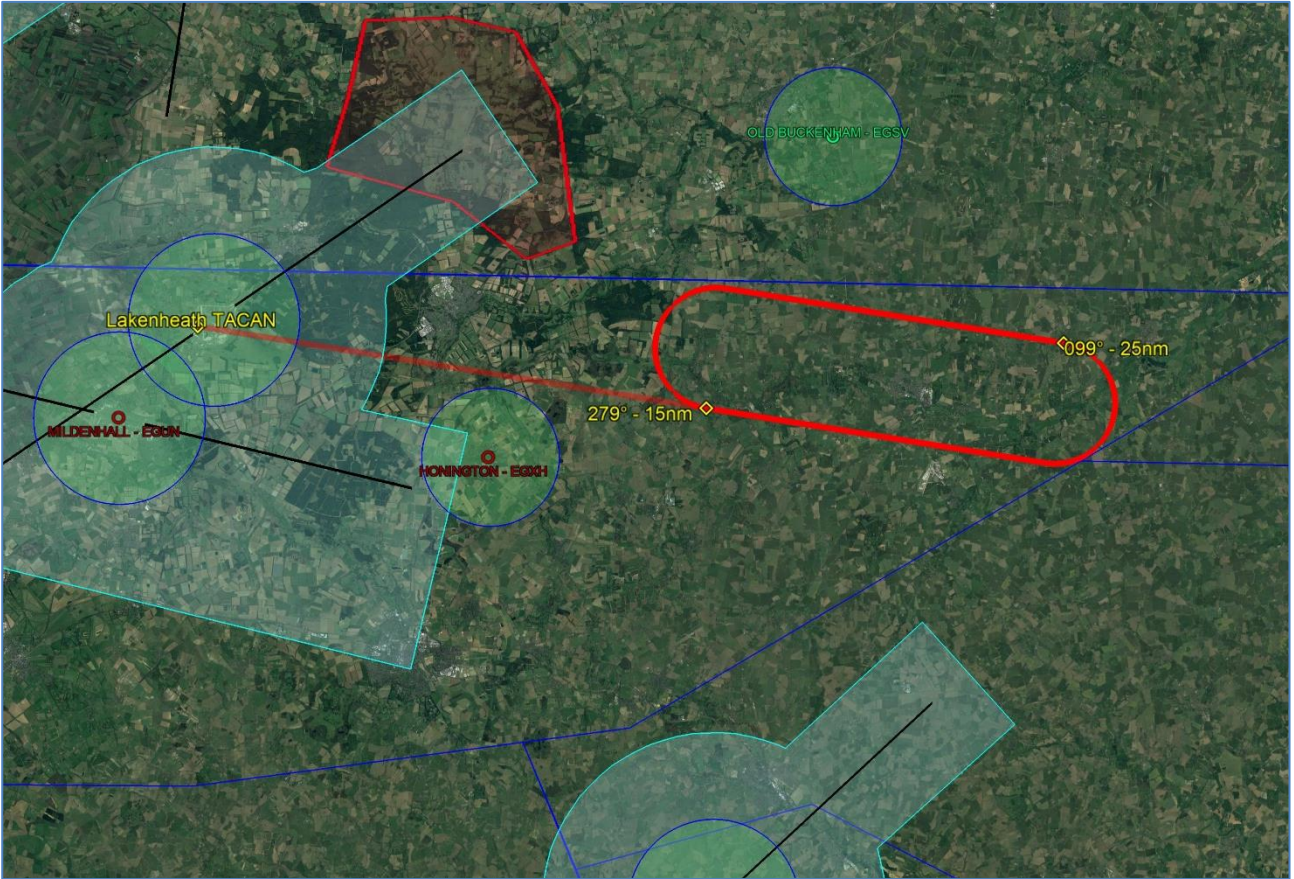




Charts 19 & 20 – Serials 24, 25, 27 & 28  
 15nm to 1nm – Inbound Radial 5° Either Side of Track



Charts 21 & 22 – Serial 29  
15nm to 10nm Hold – Western Side of Lakenheath @ 2,000ft AGL



Charts 23 & 24 – Serial 30  
13nm to 22nm Hold – Western Side of Lakenheath @ 3,000ft AGL

