



ACP-2024-028

STAGE 2 – DEVELOP AND ASSESS

ANNEX A - BASELINE SCENARIOS V1.1

Roles

Action	Role	Date
Produce	QinetiQ Airspace Change Team	25/06/2026
Review	QinetiQ Technical Assurance	30/06/2026
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Glossary

This glossary is a list of the acronyms and phrases used throughout this document. For full definitions of phrases, please refer to [CAP 1430 – UK Air Traffic Management Vocabulary](#).

Term	Description
ACP	Airspace Change Proposal
ADIZ	Air Defence Identification Zone
ADS-B	Automatic dependent Surveillance - Broadcast
AGCS	Air Ground Communication Service
AGL	Above Ground Level
AIRPROX	Air Proximity
AMC	Airspace Management Cell
AMSL	Above Mean Sea Level
AOI	Area of Interest
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
ATC	Air Traffic Control
AUP	Airspace Use Plan
BVLOS	Beyond Visual Line of Sight
CAD	Close Air Defence
CAP	Civil Aviation Publication
CTA	Terminal Control Area
DA	Danger Area
DAATM	Defence Airspace and Air Traffic Management
DARC	Deep Space Advanced Radar Capability
DTE	Defence Training Estate
FIR	Flight Information Region
FL	Flight Level
FOI	Freedom of Information
GNSS	Global Navigation Satellite System
HIRF	High-Intensity Radiated Field
HIRTA	High-Intensity Radio Transmission Area
HLS	Helicopter Landing Site
IAP	Instrument Approach Procedure
KM	Kilometres
LFA	Low Flying Area
MAMC	Military Airspace Management Cell
MOD	Ministry of Defence

NM	Nautical Mile
NNR	National Nature Reserve
NOTAM	Notice to Aviation
NWMTA	North Wales Military Training Area
OME	Ordnance, munitions, explosives
SAC	Special Area of Conservation
SFC	Surface
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
TRA	Temporary Reserved Area
UAS	Unmanned aircraft systems
UNL	Unlimited
UUP	Updated Use Plan
VLOS	Visual Line of Sight
VMC	Visual Meteorological Conditions

Introduction

1 Regulatory Requirement

1.1 The baseline scenario for the year of implementation has been adapted from the current-day scenario¹ presented to stakeholders during Stage 1 of the Airspace Change Process (ACP). The future scenario without airspace change assumes the current-day airspace situation (that is, airspace structures and behaviours) but reflects other changes to the use of the airspace independent of the proposed airspace change, for example, traffic growth and fleet changes that occur as part of business as usual.

1.2 The area of interest (AOI) for this ACP has been selected as a 20NM radius around the lat-long 52.879420° 0.198351°. The point is in the vicinity of the centre of the proposed airspace change, calculated by drawing a bisecting line between the furthest points east-West and north-south and finding the intersecting point. A 20NM radius circle from this point gives a minimum of 5NM from the closest edge of proposed airspace, as described in the Stakeholder Engagement letter.² Figure 1 refers:



Figure 1: AOI for ACP-2024-028 as depicted in Google Earth

2 Context

2.1 Holbeach Air Weapons Range (AWR) is a Ministry of Defence (MOD) facility situated between Boston and King's Lynn in the civil parish of Gedney on The Wash, in Lincolnshire. The range extends over an area of 3,875 hectares (14.96 sq. miles), which includes 3,100

¹ [Annex C of ACP-2024-028 Stage 1 Submission](#)

² Distributed with this document, or available via [CAA Change Public Portal: ACP-2024-028](#)

hectares of intertidal mudflats and 775 hectares of salt marsh. An array of eight static range targets includes several retired merchant ships, which have been beached on the sands of The Wash for the purpose of bombing practice. Observation towers ("Quadrants") parallel to the target line are manned and allow the fall of air system ordinance to be calculated for accuracy by means of triangulation. The range includes a helicopter-landing pad near the main control tower and range headquarters building.

2.2 EGD207 is established for Holbeach AWR activity, as depicted on the local area map at Figure 2.

2.3 EGD207 intersects South Holland District Council as well as Boston and King's Lynn and West Norfolk Borough Councils. Whilst developing the Baseline scenarios, all three areas were taken into consideration, in addition to East Lindsey, North Kesteven, South Kesteven, and Fenland, which all fall within the AOI.

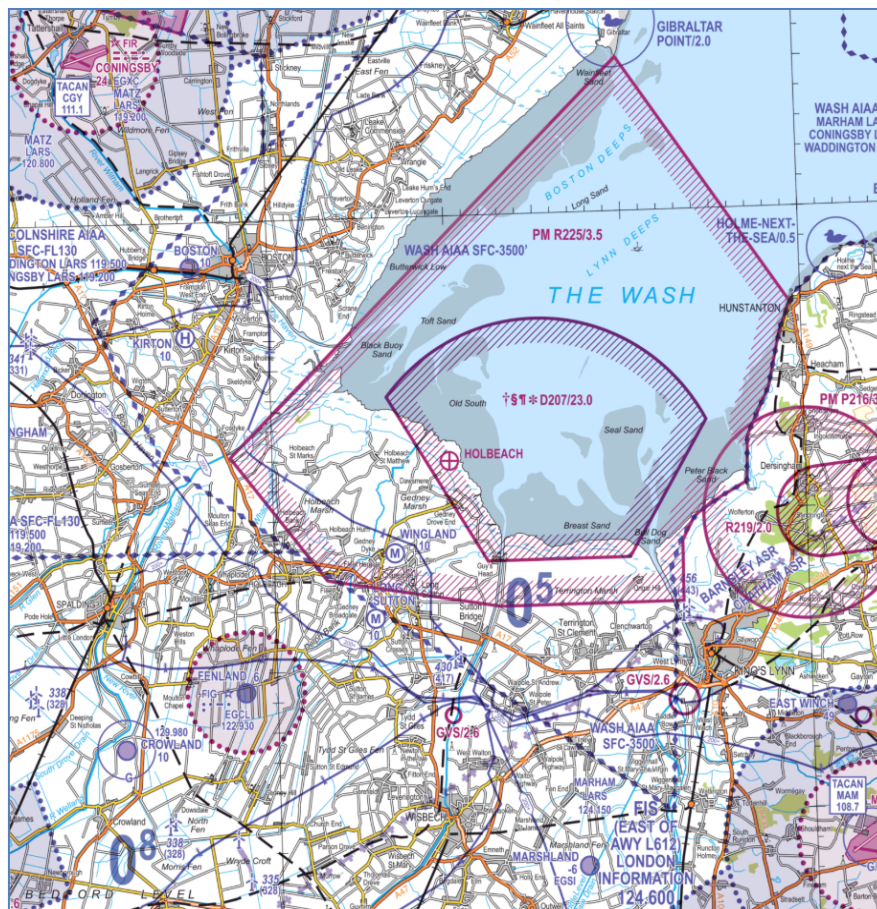


Figure 2: EGD207 Local Area Map³

Baseline Scenarios

3 Structures, routes, procedure and behaviours – Year of Implementation

3.1 Cross-section diagrams of the local airspace are at Figure 3 and Figure 4 and are further described below.

³ Topographical Air Chart of the United Kingdom 1:250,000"-Sheet 6, England East, Edition 16, 3 Jul 2023

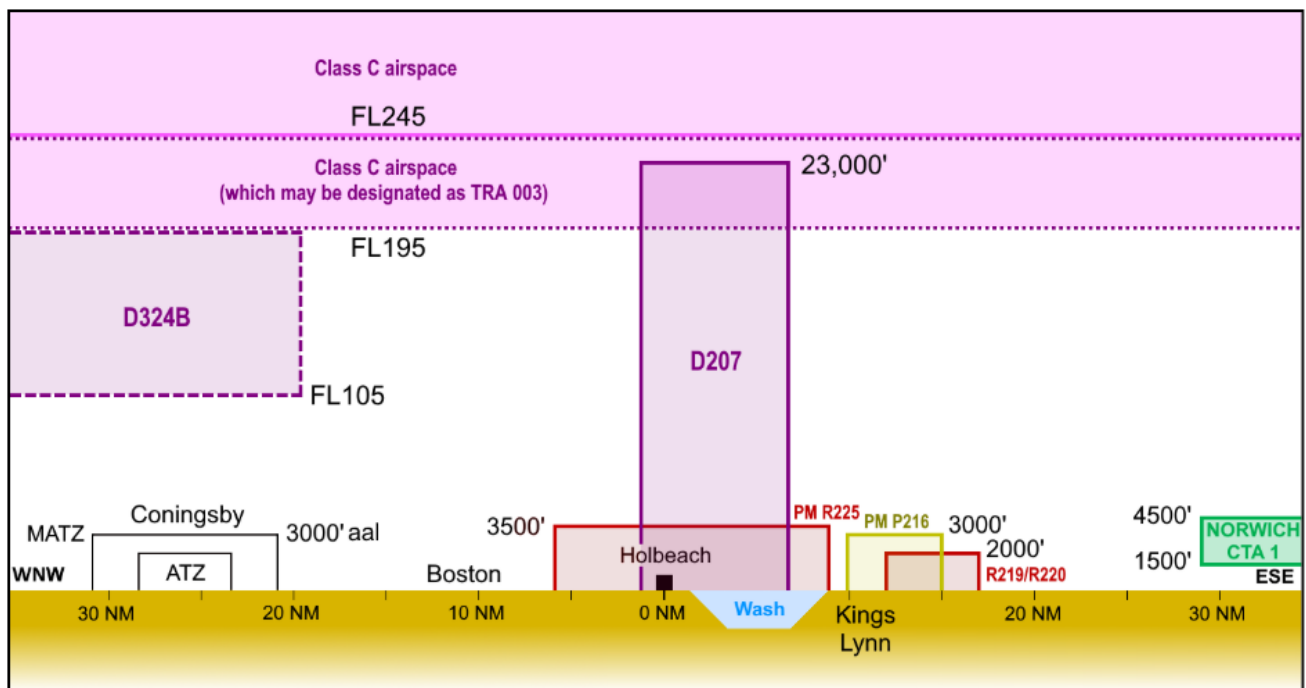


Figure 3: Cross-section Diagram of Local Airspace (orientation East southeast to West northwest)

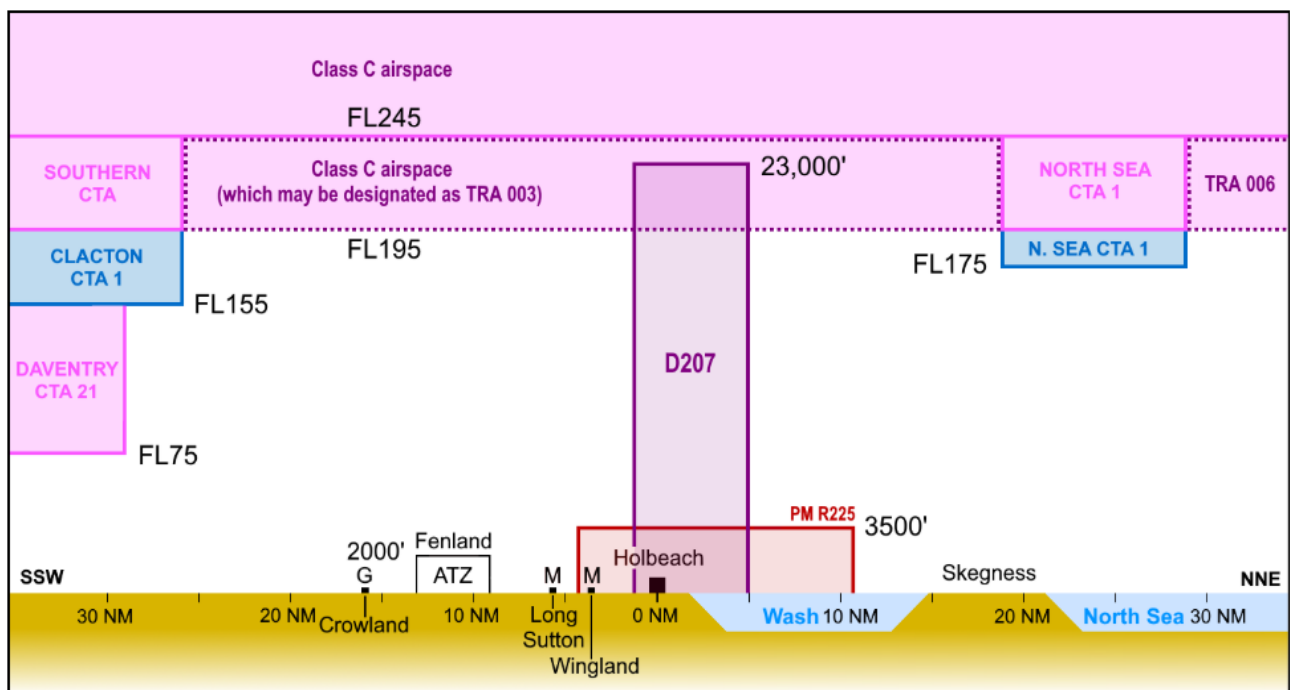


Figure 4: Cross-section Diagram of Local Airspace (orientation North northeast to South southwest)

3.2 **EGD207, Holbeach.** Vertical limits of EGD207 are from surface to 23,000ft AMSL⁴; the portion of EGD207 below FL195⁵ is laterally surrounded by Class G⁶ airspace. **Holbeach AWR ATC** are present during all AWR operations and aircraft utilising the range operate

⁴ Above Mean Sea Level

⁵ FL: A surface of constant atmosphere pressure which is related to a specific pressure datum, 1013.2hPa, and is separated from other such surfaces by specific pressure intervals. Altitude above sea-level in 100 feet units measured according to a standard atmosphere <https://skybrary.aero/articles/altitude-flight-level-and-height>.

⁶ Class G – uncontrolled airspace

under positive ATC control, either from Holbeach or from a military ATC terminal or area radar unit. A Basic Service (non-radar) is provided by the AWR controllers to transits to/from, and in close proximity to, EGD207 when the Danger Area (DA) is active. A Special Use Airspace Crossing Service (SUACS), and airspace status information obtained from a Special Use Airspace Activity Information Service (SUAAIS), are available from the range and can be obtained via both UHF and VHF frequencies. Additionally, a SUAAIS may be provided by London Information. Table 1 provides recent data for utilisation of EGD207 (Jan 2024 to Sep 2025).

3.3 Controlled airspace. To the SE of EGD207 is Norwich Airport, surrounded by a Control Zone (CTR) and a Control Area (CTA), both up to 4,000ft AGL⁷. Above EGD207, Class C extends from FL195 to FL245. During specified hours, the Class C⁸ airspace above is activated as a Temporary Reserved Area (TRA 003). Although the background classification between FL195 and FL245 is Class C, to avoid operational restrictions, military air systems may operate autonomously (when not occupied by Unmanned Air Vehicles (UAV)).

3.4 Provost Marshall Restricted (PMR) area PM R225, The Wash. Sitting at the lower portion of EGD207 from surface to 3,500ft AGL, with lateral limits extending beyond those of EGD207. The PMR is prohibited to military air systems except for pilots authorized to enter for range activity at Holbeach or Wainfleet weapons ranges, or pilots making an approach to Runway 25 at RAF Coningsby using authorised ATC⁹ approach procedures. The airspace vertical limits are surface to 3,500ft.

3.5 Provost Marshall Prohibited Area PM P216, Sandringham House. Located to the East of EGD207 it is prohibited to military air systems from 1 December to 1 March. Vertical limits are surface to 3,000ft AGL, circle radius 3.5NM centred on 52 49 47.0N 000 30 00.0E.

3.6 Restricted area EGR219, Sandringham House. Only accessible to specified air systems. Vertical limits are surface to 2,000ft AGL in an area 524819N 0003104E thence clockwise by the arc of a circle radius 1.5NM centred on 524948N 0003049E to 525117N 0003033E - 525132N 0003424E thence anticlockwise by the arc of a circle radius 1.5NM centred on 525003N 0003447E to 524834N 0003510E - 524819N 0003049E.

3.7 Military Aerodrome Traffic Zones (MATZ). The MATZ is ordinarily a circle 5NM radius centred on the Aerodrome Reference Point (ARP) and is notified from surface to 3,000ft AAL¹⁰. MATZ penetration by a military air system is subject to specific permission/clearance. The MATZ for RAF units Coningsby and Marham are all within 20NM of ACP-2024-028 Centre point.

3.8 Aerodrome Traffic Zones (ATZ). An ATZ is established to give protection to air systems at the critical stages of flight when departing, arriving, and flying in the vicinity of an aerodrome. A circle 2.5NM radius centred on the ARP, usually notified from surface to

⁷ Above Ground Level

⁸ [IFR](#) and [VFR](#) flights are permitted, all flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights <https://skybrary.aero/articles/classification-airspace>.

⁹ Air Traffic Control

¹⁰ AAL: Above Aerodrome Level

2,000ft AAL. All military aerodromes (including those listed at para 2.1.1.5) have an ATZ. In addition, the ATZ for Fenland aerodrome is within the AOI.

3.9 Minor aerodromes. Wingland airfield (Microlight and **Paramotor Training schools** routinely operating outside EGD207 published hours) and Long Sutton airfield (operating microlights) are key airspace users in the AOI. Other aerodromes located within the AOI are East Kirkby (Aviation Heritage Museum); Boston airfield; Crowland (Gliding); East Winch airstrip; and Great Massingham. Small airstrips¹¹ are located at Marshland, Kirton, Sempringham Fen, Decoy Farm, Pointon, Croft, and Skegness. In addition, there is a known unlicensed airstrip, Red House Farm (Dafforn), understood to house three high-performance light aircraft, with activity estimated being less than 10 movements per month (highest frequency being in the summertime).

3.10 Low Flying Areas (LFAs). LFAs are designated zones allowing military fast jets, transport aircraft, and helicopters to practice low-level techniques, often at heights below 2,000 feet. Low flying activity is managed and booked via the Centralised Aviation Data Service (CADS), administered by the Military Airspace Management Cell (MAMC). Figure 5 depicts the location of LFAs 5, 6 and 11, situated in the AOI. Locally known as the 'Fenland Gap' (on the LFA 5/6 boundary) and the 'Boston/Coningsby Gap' (within LFA 11). Figure 6 and Figure 7 are included to demonstrate traffic flow and volume.

¹¹ NATS VFR Database

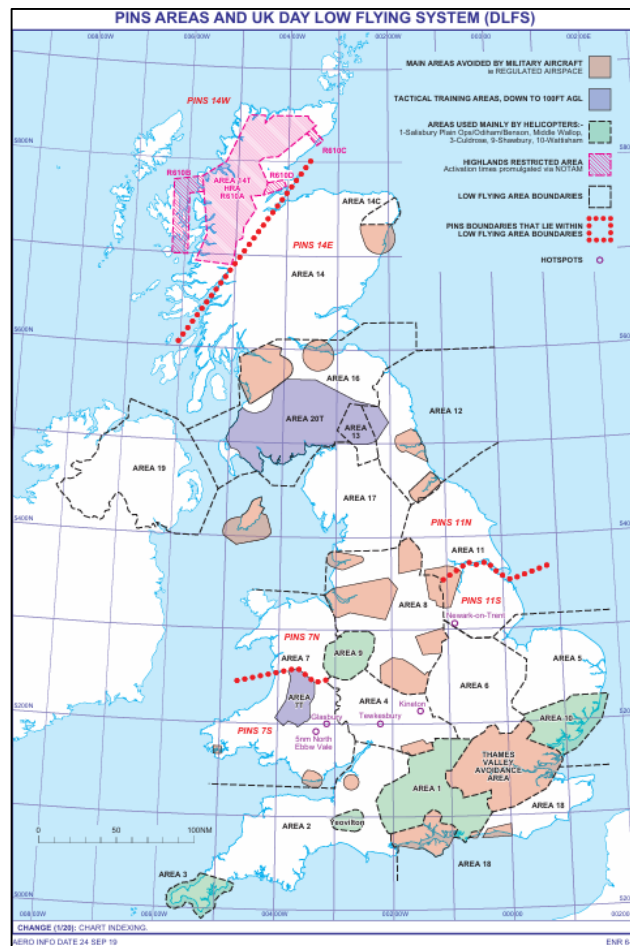


Figure 5: Low Flying system¹²

4 Structures, routes, procedure and behaviours - Year 10

4.1 The change sponsor is unaware of any planned changes to structures, routes, procedures, or behaviour within the AOI.

5 Airspace Usage - Year of Implementation

5.1 **EGD207.** Hours of activation are routinely Mon-Thu 0900-1700, Fri 0900-1200. Between September and April (inc.) Tue, Thu 1700-2200; but can also be activated by NOTAM. The UK MOD and United States Air Force (USAF) air systems are the predominant users of EGD207, but over 20 fixed wing, rotary and UAV national and international air system types have been operating over recent years; Table 1 shows the total number of hours and passes witnessed at EGD207 between Jan 24 and Jul 25. The number of air systems penetrating the DA outside operating hours is unknown (NB: military air systems would be not below 2,000ft AMSL). A Basic Service (non-radar) is provided by AWR controllers to transits to/from, and in close proximity to, EGD207.

5.2 **PMR225.** Hours of activation are routinely Mon-Thu 0900-1700, Fri 0900-1200, additionally 1700-2200 on Tues and Thurs from 1 September to 30 April. There is no quantitative data available for the PMR, but EGD207 operating authority estimates ten transits per day (none during bad weather but upwards of thirty per day during good

¹² Source: eAIS Package United Kingdom, ENR6-20

weather). These consist of mainly light general aviation (GA) air systems receiving an Air Traffic Service (ATS) from RAF Marham or RAF Coningsby.

Table 1: Utilisation of EGD207		
Month/Year	No. of hours	No. of Passes
Jan 24	26.5	407
Feb 24	26.5	457
Mar 24	41.25	1108
Apr 24	25.25	414
May 24	15.00	334
Jun 24	22.25	596
Jul 24	23.5	515
Aug 24	21.75	597
Sep 24	41.5	871
Oct 24	21.5	473
Nov 24	17.75	363
Dec 24	15.5	298
Jan 25	28.5	372
Feb 25	31.25	575
Mar 25	45.50	1302
Apr 25	71.00	1676
May 25	26.75	506
Jun 25	11.50	241
Jul 25	47.75	1078
Aug 25	46.25	1032
Sep 25	25.00	905
Oct 25	24.75	661
Nov 25	29.00	747
Dec 25	26.75	495

Source: Holbeach AWR

LFAs. Figure 6 and Figure 7 show heat maps of low-level military air system movements in the Fenland Gap (on the LFA 5/6 boundary) (indicated by a yellow circle), and the Boston/Coningsby Gap (within LFA 11) (indicated by a blue circle), and the geographic area of East Anglia, respectively for the period 1 Jan – 31 Dec 2025. The heat maps show tracks flown in the vicinity of Holbeach Range (indicated in red and labelled) and demonstrates where there are concentrations of traffic. With this data, the change sponsor can ensure that any proposed airspace change minimises the redistributed of the below traffic patterns.

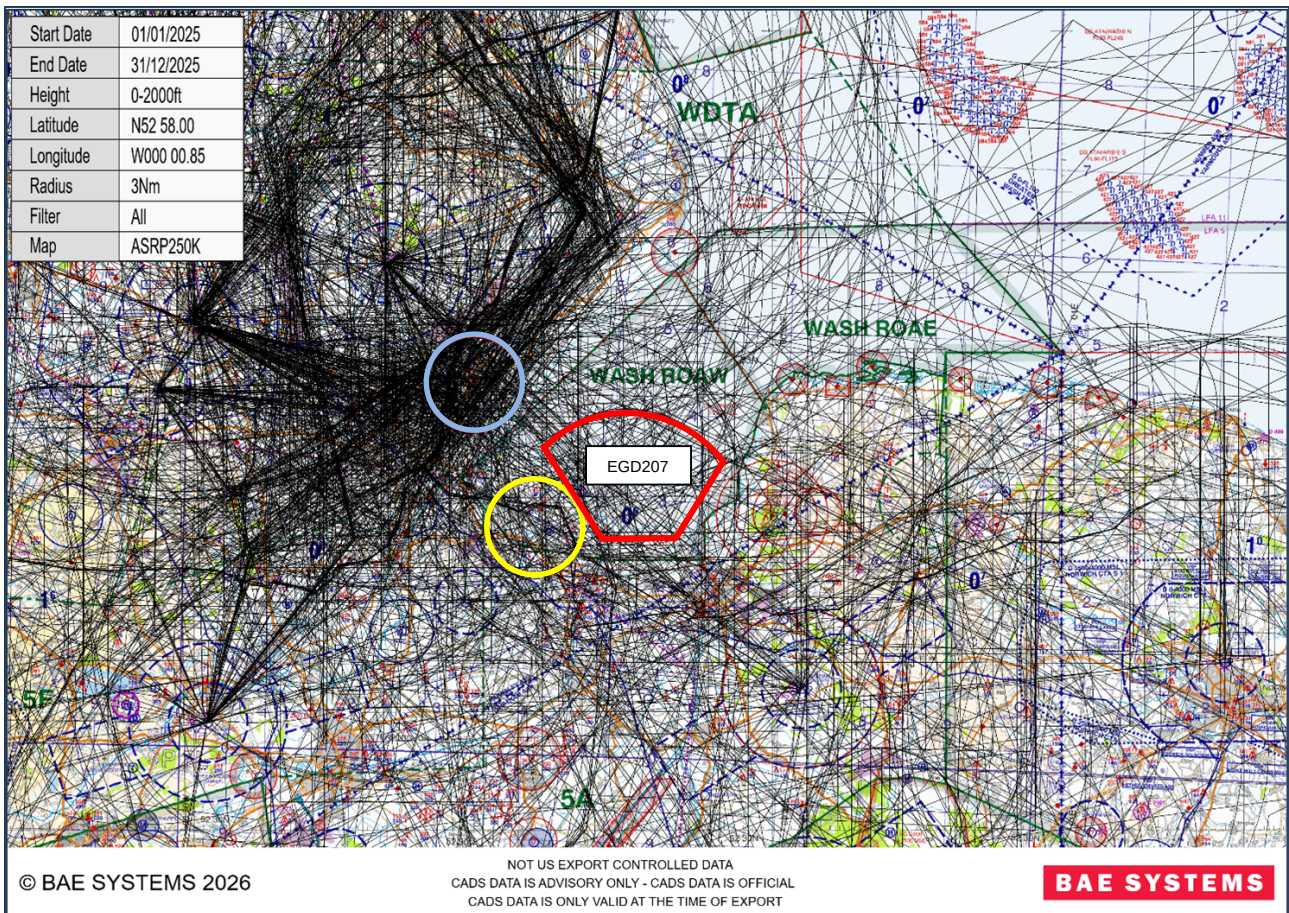


Figure 6: LFA 5/6 & 11 Heat Map. Source - Military Airspace Management Cell (MAMC) | 78 Sqn

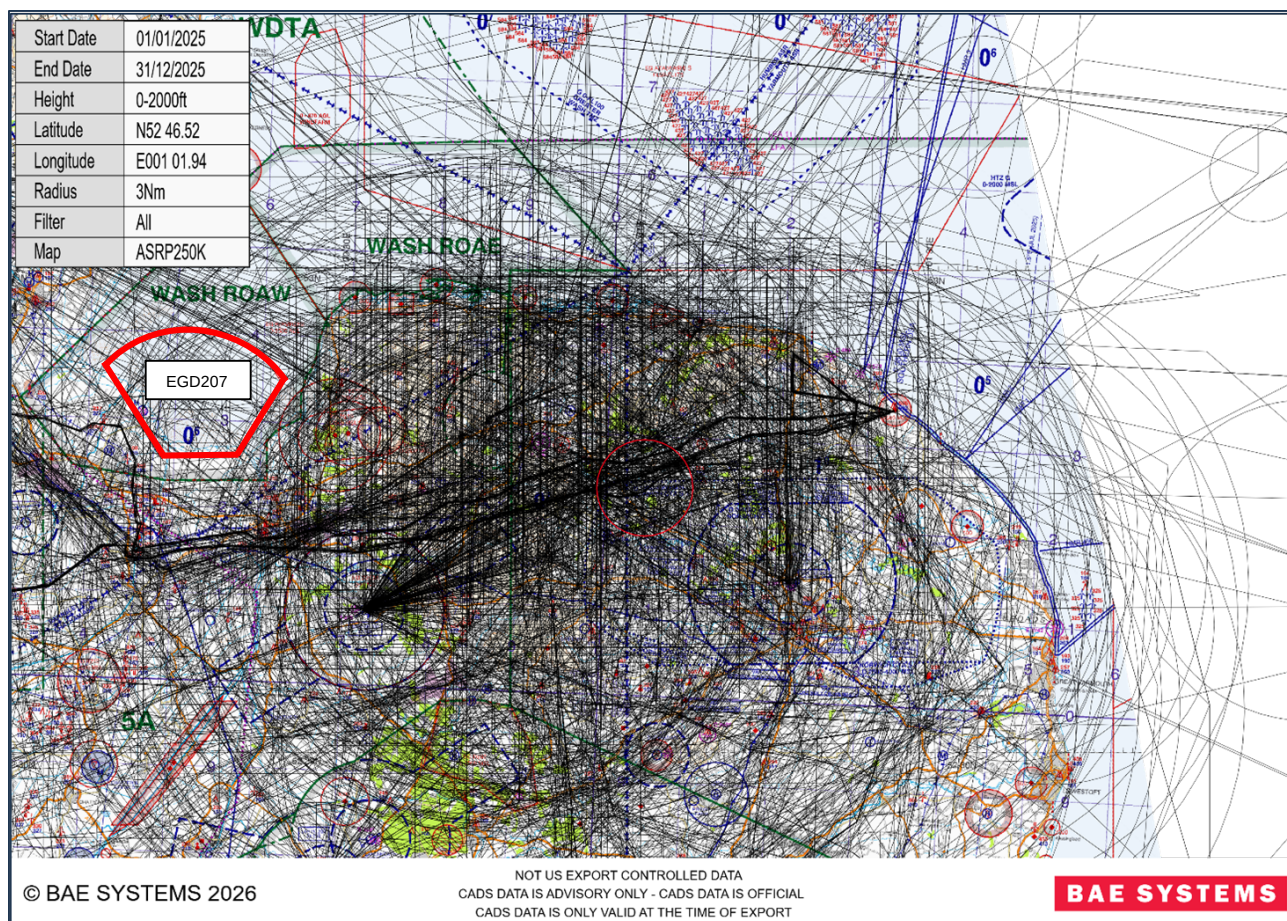


Figure 7: East Anglia Heat Map. Source - Military Airspace Management Cell (MAMC) | 78 Sqn

5.3 Local area. The airspace is popular for leisure flying (general aviation, gliding, paragliding, and parachute activity) and survey air systems. The airspace surrounding EGD207 benefits from air traffic services provided by several military and civilian agencies with good coverage under the Lower Airspace Radar Service (LARS) network. Air systems operating in the vicinity of EGD207 who wish to obtain an air traffic service typically receive a LARS from either RAF Marham, RAF Coningsby or Norwich airport.

5.4 East Anglia Air Ambulance (EAAA). Covering Norfolk, Suffolk, Cambridgeshire, and Bedfordshire 24 hours a day, 7 days a week, the EAAA operates from Norwich airport and requires occasional access to cross EGD207 at short notice in response to Helicopter Emergency Medical Service (HEMS) tasking.

5.5 Royal Flights. The King's Helicopter Flight (KHF) operates in and out of Sandringham House utilising RAF Marham for refuelling purposes. Controlled Airspace (temporary) (CAS (T)) and Royal Low-level Corridors are established to facilitate transit of Royal flights in/out of Sandringham House.

6 Airspace Usage - Year 10

6.1 To project future usage of EGD207, the MoD applied a simple linear trend based on the year-on-year increase observed between 2024 and 2025 (+113 hrs). This increase was then extended forward to estimate usage for 2026–2028. Because only two historical data points were available, a linear projection provides the most stable and transparent method without overfitting.

6.2 A $\pm 10\%$ prediction band was added to illustrate the reasonable range of uncertainty around the forecast. This gives decision-makers clearer context on potential variation in future AWR demand.

6.3 Table 2 depicts the last 2 years 'used hours' for Holbeach, with a further forecast for the next 10 years using the modelling above.

Table 2: EGD207 Usage Forecast	
Year	Holbeach Used (Hours)
2024	1299
2025	1412
2026	1525
2027	1638
2028	1751
2029	1864
2030	1977
2031	2090
2032	2203
2033	2316
2034	2429
2035	2542
2036	2655

Source: Holbeach AWR

6.4 Estimated Class G airspace traffic growth in this area is likely to be generated by regional military operations, together with GA traffic, and will be dependent on various economic and social factors that are impossible to predict (e.g., fuel costs, GDP etc.). Therefore, no further granularity is available on which to evaluate a reliable 10-year forecast. The MOD is not aware of any significant forecast increase in civil traffic in the vicinity of EGD207, from both the commercial and GA perspective.

7 Safety Risks - Year of Implementation

7.1 There are no current safety risks that the Change Sponsor is aware of in relation to the airspace of the Baseline scenarios.

8 Safety Risks - Year 10

8.1 There are no current safety risks that the Change Sponsor is aware of in relation to the airspace of the Baseline scenarios.

9 local features below 7,000 feet - Year of Implementation

9.1 Designated areas in the AOI, such as National Parks, Areas of Outstanding Natural Beauty (AONB), Local National Reserves (LNR) and National Scenic Areas (NSA) are shown at Figure 8.

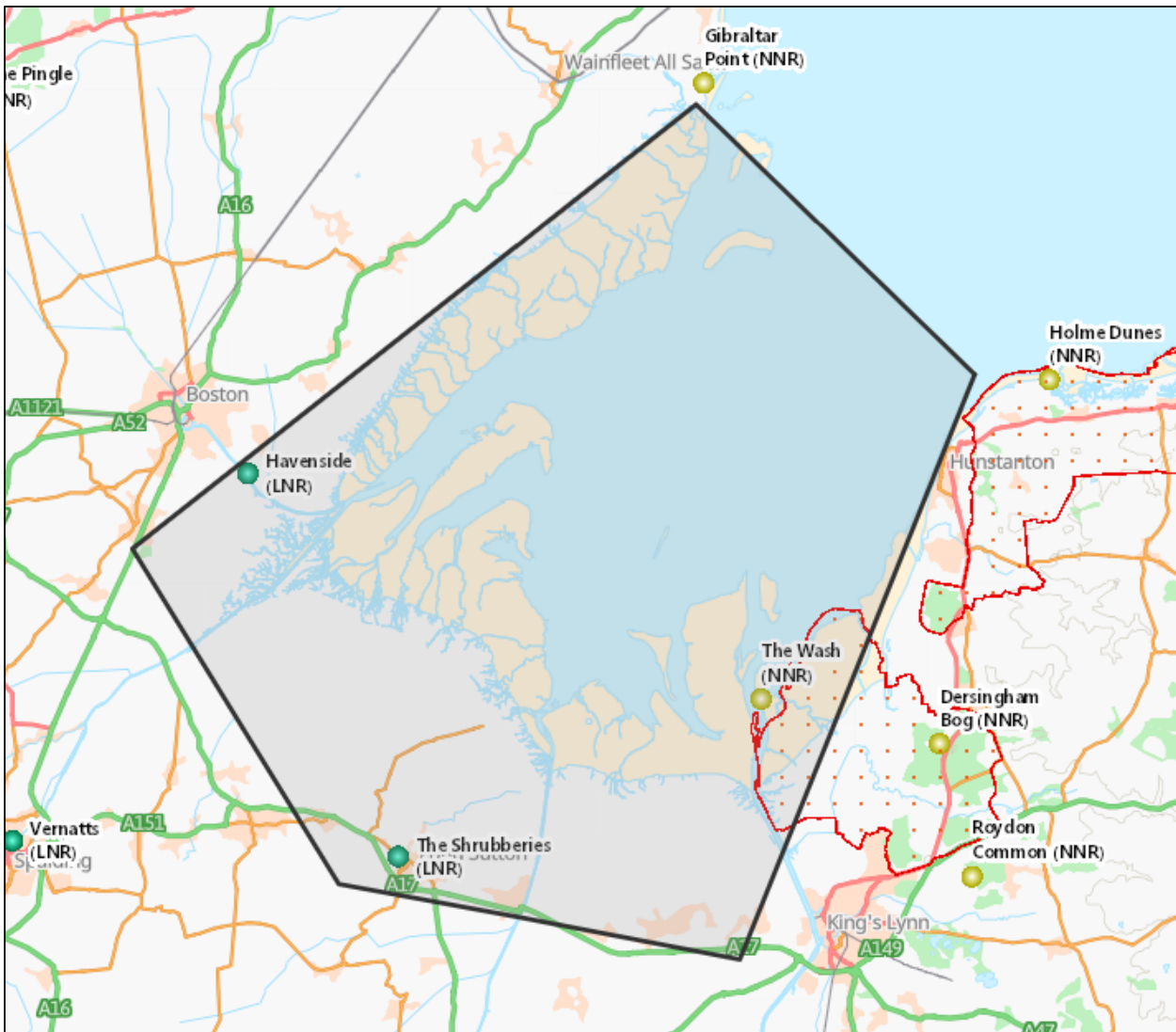


Figure 8: National Parks, AONBs and NSAs. Source - <https://magic.defra.gov.uk/MagicMap.html>

10 local features below 7,000 feet - Year 10

10.1 The Change Sponsor is unaware of any proposed changes to the designated areas within the AOI.

11 European sites overflown below 3,000ft - Year of Implementation

11.1 Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites (wetlands of international importance) within the AOI are depicted at Figure 9.

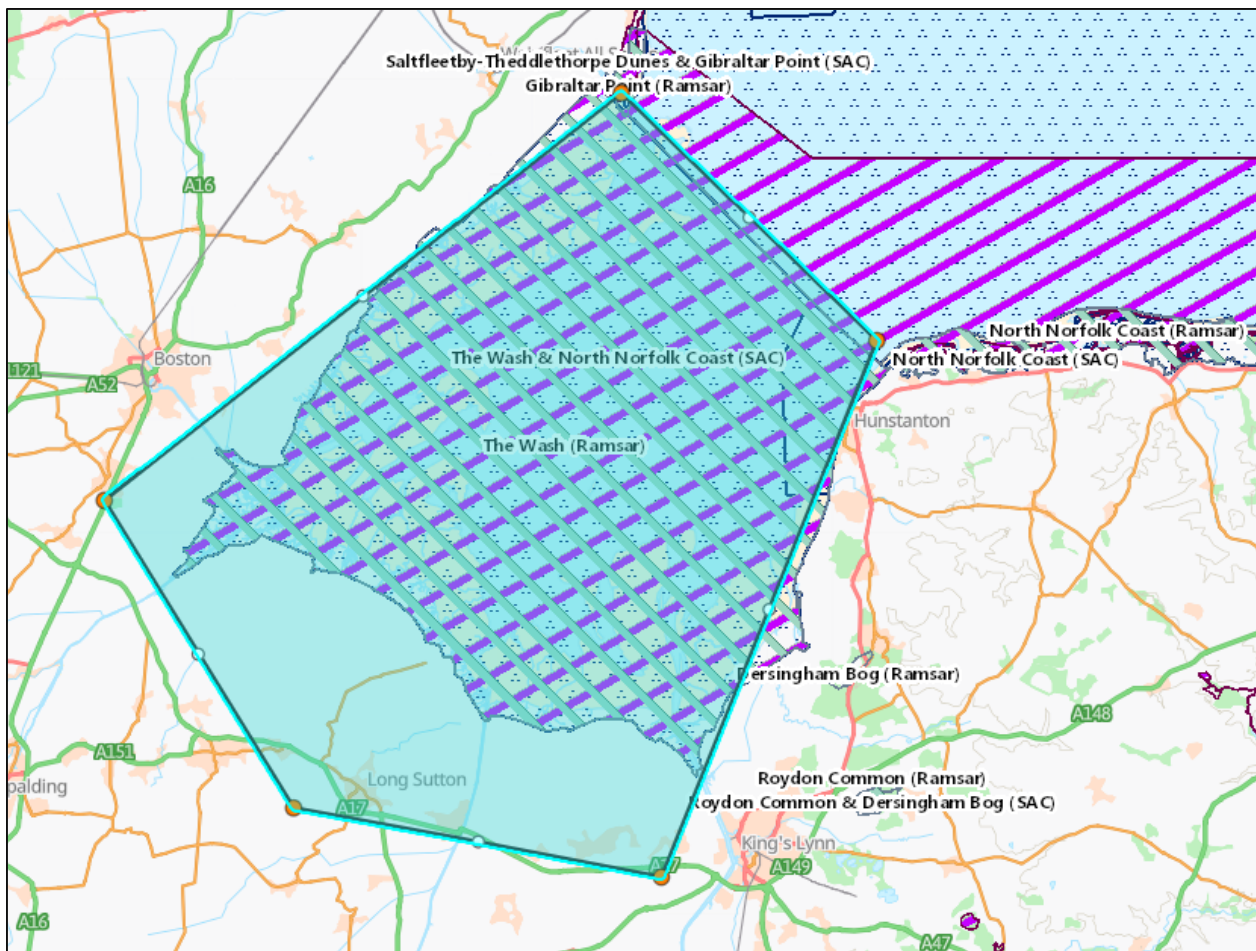


Figure 9: SACs, SPAs and Ramsar sites. Source - <https://magic.defra.gov.uk/MagicMap.html>

12 European sites overflown below 3,000ft - Year 10

12.1 Using the Magic tool, the Change Sponsor did not find any proposed amendments to existing European sites, or any additional sites planned that are applicable to the AOI.

13 Environmental Impacts - Year of Implementation

13.1 The Change Sponsor has evaluated that current noise is primarily associated with military air systems referenced, due to the operations already conducted in and around EGD207. Any other source of noise is from GA activity. It was deemed that noise modelling a Class G environment would be disproportionate to the impact created. The Change Sponsor concluded there are no other environmental impacts relevant to the ACP¹³¹⁴¹⁵¹⁶¹⁷¹⁸¹⁹.

14 Environmental Impacts - Year 10

¹³<https://www.sholland.gov.uk/article/5193/Environmental-Health>

¹⁴<https://www.boston.gov.uk/article/20653/Environmental-Health>

¹⁵https://www.west-norfolk.gov.uk/info/20096/environmental_health

¹⁶<https://www.e-lindsey.gov.uk/environmentalhealth>

¹⁷<https://www.n-kesteven.gov.uk/environment>

¹⁸<https://www.southkesteven.gov.uk/environmental-health>

¹⁹<https://www.fenland.gov.uk/environment>

14.1 Environmental impacts (including tranquility, air quality and noise) are expected to be in line with forecast civilian and military traffic levels only.

15 Local Context - Year of Implementation

15.1 The Military Aviation Planning Portal lists ten locations currently notified for local avoidance procedures. All areas are to be avoided by 1nm or less by military aircraft for flight not below 2,000ft, shown at Figure 10.

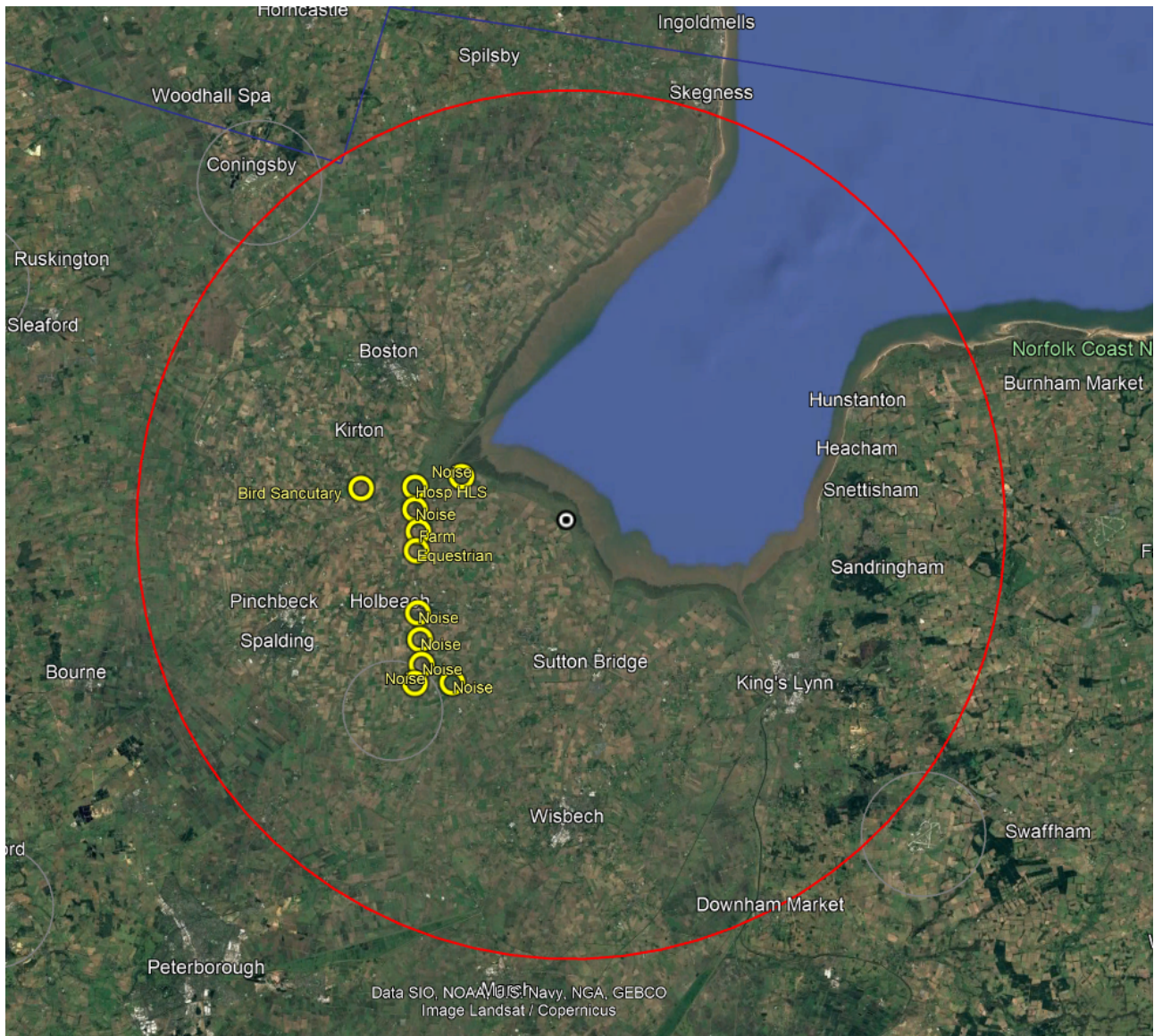


Figure 10: Military Avoidance Areas. Source - Military Low Flying | 78 Sqn

16 Local Context - Year 10

16.1 The AOI covers South Holland District Council, Boston²⁰ and King's Lynn and West Norfolk Borough Council, East Lindsey, North Kesteven, South Kesteven, and Fenland councils. The local development plan for each has been analysed to determine if there are any planned housing or other projects which may be of significance to this ACP.

16.2 South Holland District and Boston Borough Council produced a joint local development plan for between 2011-2036, adopted March 2019, named the South Lincolnshire Local

²⁰ [South East Lincolnshire Local Plan](#)

Plan. In this plan, in the Boston council there are expected to be 9000 new homes built between 2011 and 2036 over a minimum of 32 sites. In South Holland district, over 60 sites are expected to supply nearly 13000 homes between 2011 and 2036. The major housing proposals are detailed below:

- Southwest Quadrant Sustainable Urban Extension (SOU006), consisting of approximately 1515 new homes, 2.5Ha of employment, a marina hub, new school and new road structure.
- South of the North Forty Foot Drain Sustainable Urban Extension (Wes002), consisting of 1138 new homes, 10Ha of public space with ecological value.
- Vernatts SUE Pin045 (phase 1 and part of phase 2) 676 new houses and Pin 024 (Phase 2 and Phase 3) 2200 houses. Also, nursery, primary and secondary schools, health care facilities, open space and recreational facilities and flood mitigation.
- Holland Park Sustainable Urban Extension, already under construction as allocated in 2006 and continuing after 2036. Area of 44Ha South of Spalding building 2250 new homes.
- Holbeach West Sustainable Urban Extension, delivering approximately 900 new homes.

16.3 Kings Lynn and West Norfolk Local Plan 2021-2040²¹ was adopted in March 2025. It details approximately 12000 new homes being built to 2040. The biggest sites are described below:

- Wisbech Fringe, 25Ha allocated for 550 houses and primary school.
- Southeast Downham Market, 14ha of 300 houses.
- Northeast Downham Market, 16Ha of 296 new houses.
- West Winch Growth Area, consisting of 2030 houses by 2040 and a total of 4000 houses altogether, associated local highways, two primary schools.
- South Wootton, 40ha with at least 575 houses, health facilities and road network.

16.4 Fenland District Council Local Plan from 2014 to 2031, Adopted May 2014²² proposes 11000 new homes to be built between 2011 and 2031. Within the AOI, the following housing allocations have been proposed:

- East Wisbech, 900 houses in addition to the 550 proposed by Kings Lynn and West Norfolk.
- March town is expected to expand by over 3000 new houses and a trading estate.

²¹ [Kings Lynn and West Norfolk Local Plan](#)

²² [Fenland District Council Development Plan](#)

16.5 East Lindsay Local Plan 2016 to 2031, Adopted July 2018²³ committed to 8185 new homes, mostly inland to mitigate flood risk. The following areas within the AOI are subject to large housing considerations:

- Coningsby/Tattersall – 4 sites building approximately 400 houses.
- Spilsby – 2 sites building 380 houses.

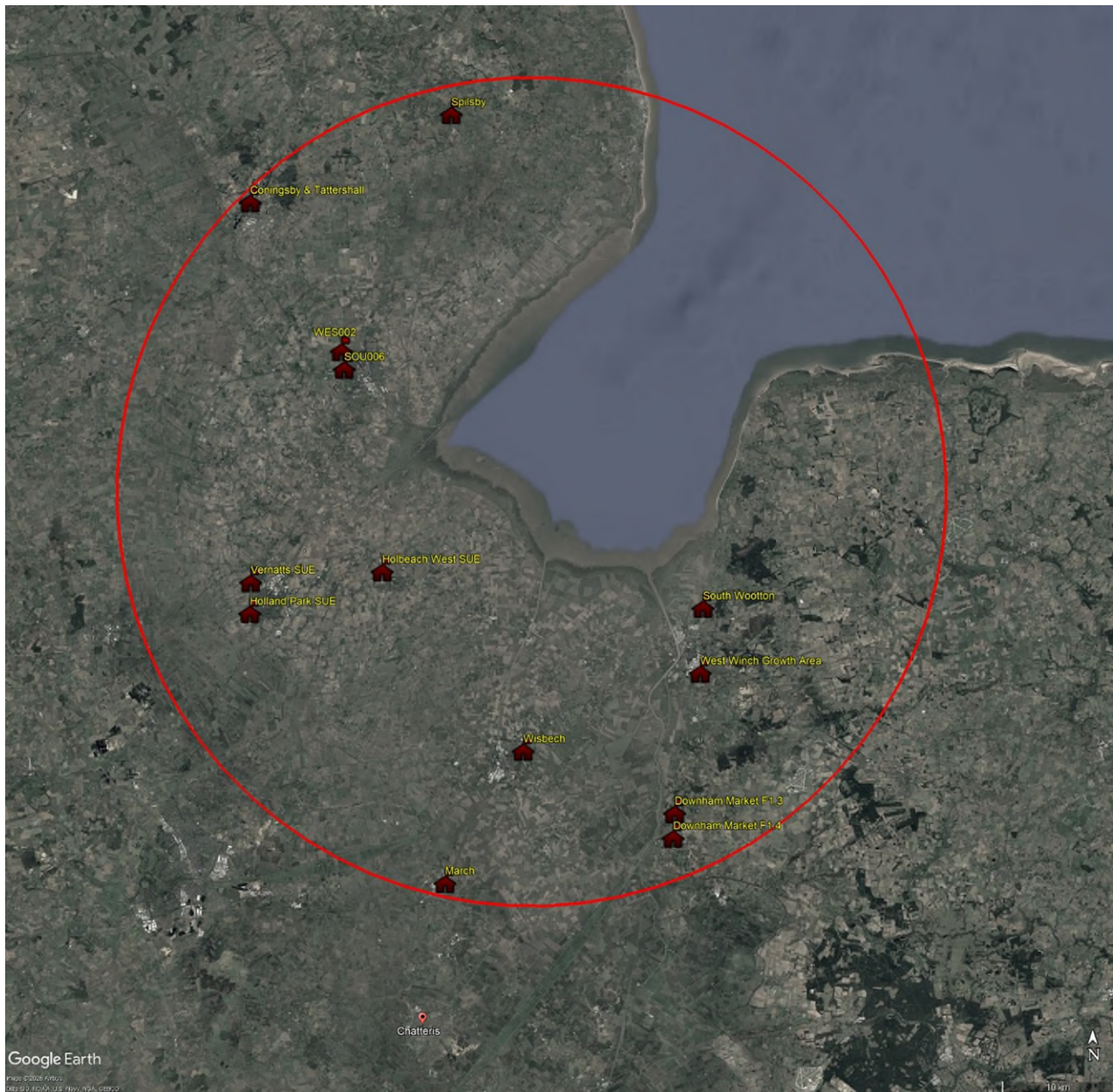


Figure 11: Large housing developments within the AOI, marked by red icon

16.6 The following Nationally Significant Infrastructure Projects (NSIPs) have been notified as approved or under consideration within the AOI:

- Meridian Solar Farm.
- Eastern Green Link 3 and 4 – underground High Voltage cables.

²³ [East Lindsay Local Development Plan](#), adopted July 2018.

- Heckington Fen Solar Park.
- Boston Alternative Energy Facility.

16.7 Other projects that may be of interest to aviation activities are the following:

- Glebe Farm, off Fen Road, East Keal. For a proposed planning application to erect an anaerobic digester and associated infrastructure.
- Hundreds Farm, Green Drove, Crowland. For proposed anaerobic digestion plant, associated infrastructure, lagoons and feedstock clamp.
- For a change of use at Holbeach Technology Park from an existing flower packing warehouse to a commercial-scale waste upcycling facility using black soldier fly larvae (BSFL) bioconversion – deemed no consequence to MOD site.