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COMBAT AIR – TRAINING AIRSPACE

CAP1616 STAGE 2a Design Options

This document forms part of the Airspace Change Proposal process as defined in CAP 1616. For ease of reading the Statement of Need and Design Principles are re-iterated before the document outlines the various options considered to meet the Statement of Need.

1. Statement of Need

In SDSR 2015, the Government committed the UK to increasing the number of combat aircraft that the MOD will operate and confirmed the intention to buy 5th generation fast jets. Additionally, as its NATO ally, the US Government has committed to the continued basing of combat aircraft within the UK. Resultantly, there is a projected growth of more capable combat aircraft planned to operate within the UK. To support this Government-directed expansion in military capability, there is a requirement for a larger area of segregated airspace to accommodate training requirements and thus ensure operational capability.

2. Design Principles

Key Principles/Requirements

1. The training area will be within reach of UK/USAFE Main Operating Bases.
2. The design will provide a suitable training area.
3. The design will provide a sufficient overland portion for siting land based assets (Training Requirement).
4. Safety – apply current airspace design safety parameters e.g. buffer policy. Final solution Tolerable and ALARP (Safety).
5. Management of airspace to utilise FUA principles (Efficiency + Airspace Sharing).
6. Minimise impact upon the network where possible (Efficiency + Airspace Sharing).
7. Simplicity - utilise existing structures where possible (Efficiency, Simplicity + Safety).

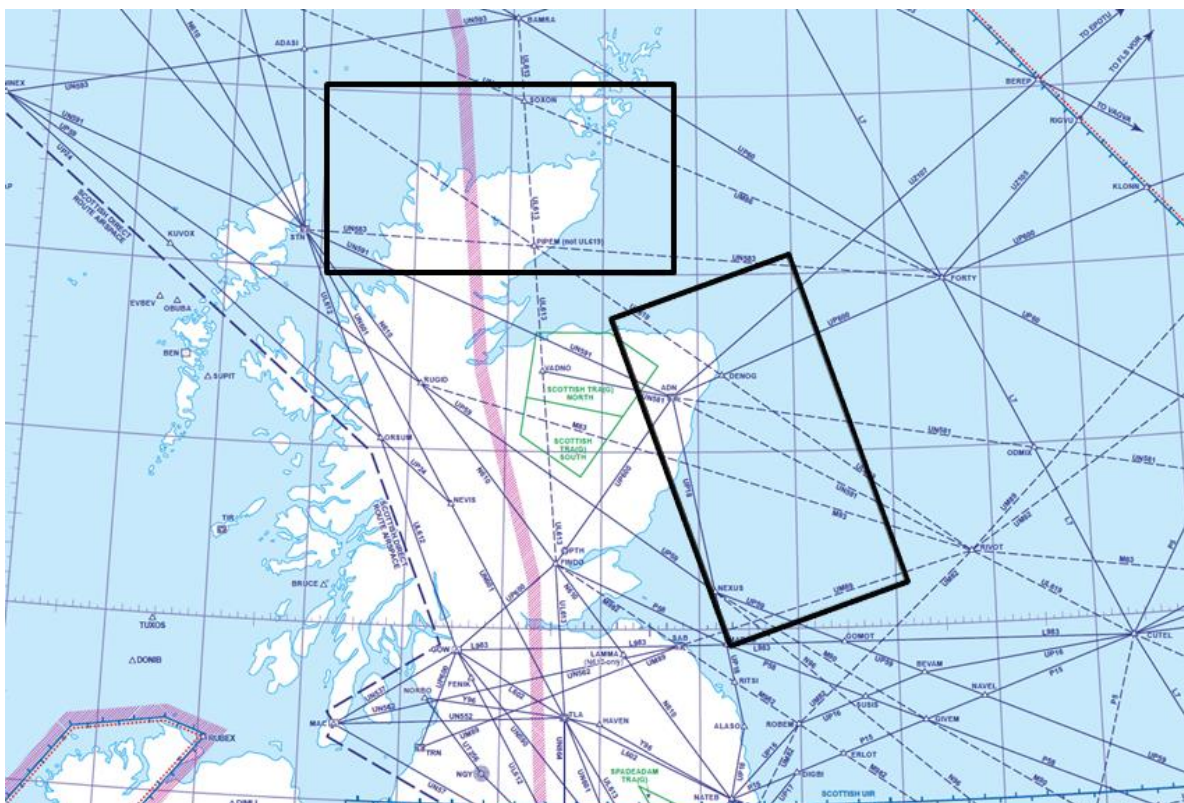
8. Conformity – use standard airspace structures where possible (Simplicity + Safety).
9. Minimise impact upon any other airspace users (Given the likelihood that any impact will be over the sea and above FL100, it is assessed that there will be few other stakeholders. These will be engaged through wider consultation in Stages 2 & 3 but will not impact the design principles).

3. Options Developments

3.1 Potential Geographical Locations

The UK is a relatively small but densely populated island with a well-developed commercial aviation sector. As such, much of the UK landmass is already heavily utilised by commercial aviation, particularly in the vicinity of highly populated areas. The minimum sized area for routine training has been determined by the Combat Air authorities as a portion of airspace 120nm x 60nm with an overland portion to facilitate training against land based facilities. The geographical locations that could potentially meet the airspace requirement without a significant and hence potentially unfeasible impact on routes into and out of commercial airports are limited. Potential locations, some of which are already utilised by the military are:

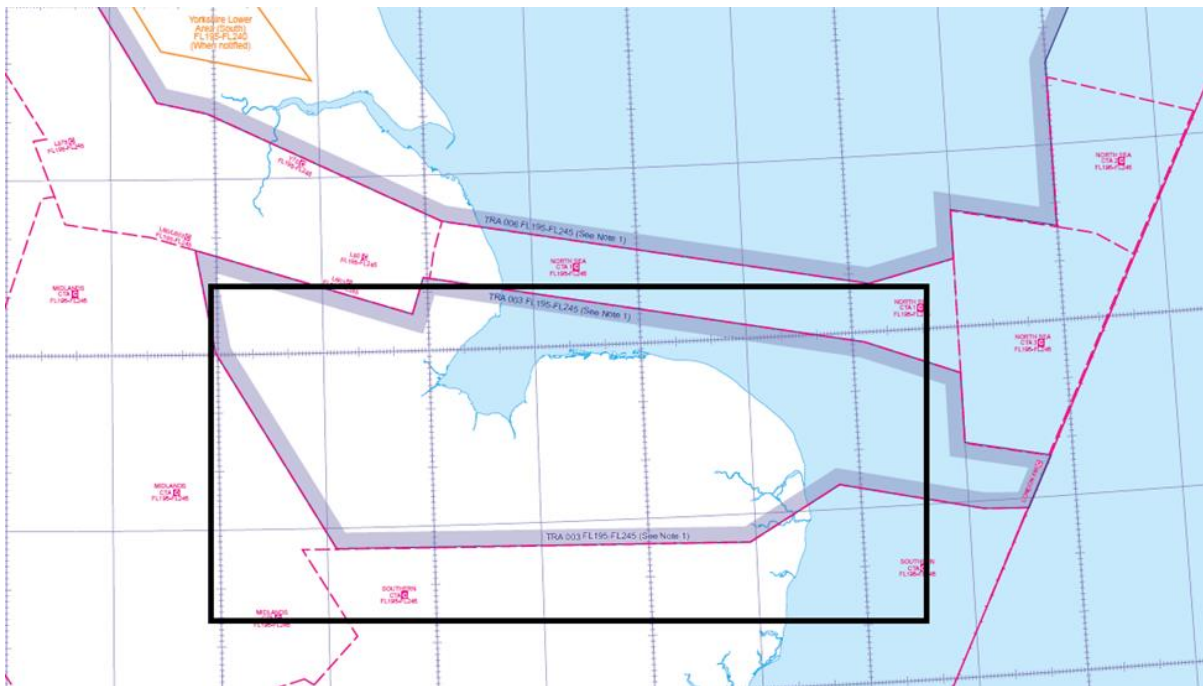
- a. North-West Scotland – creating airspace to the north or north west of Scotland.
- b. North and North-East Scotland – building upon EG613 and adding overland portion.



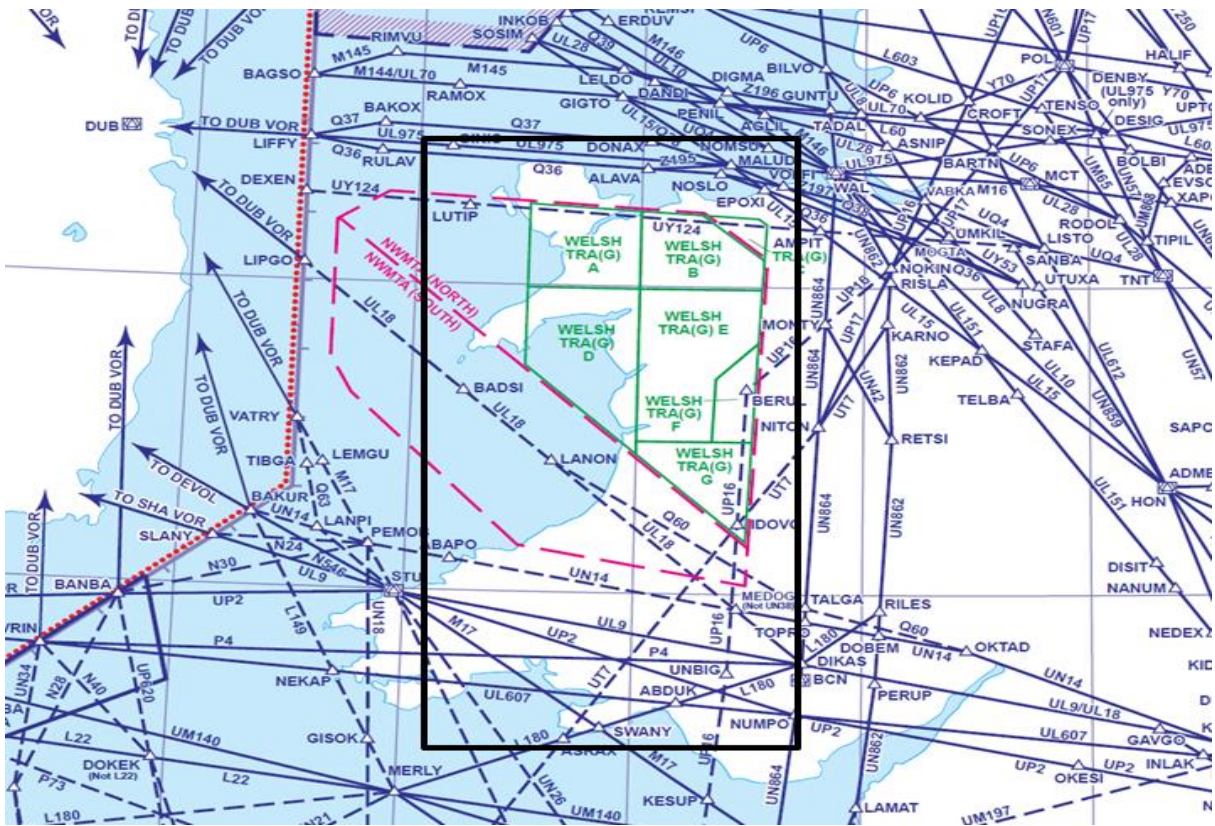
- c. Yorkshire/North Sea – Building on EG323 and adding overland portion.



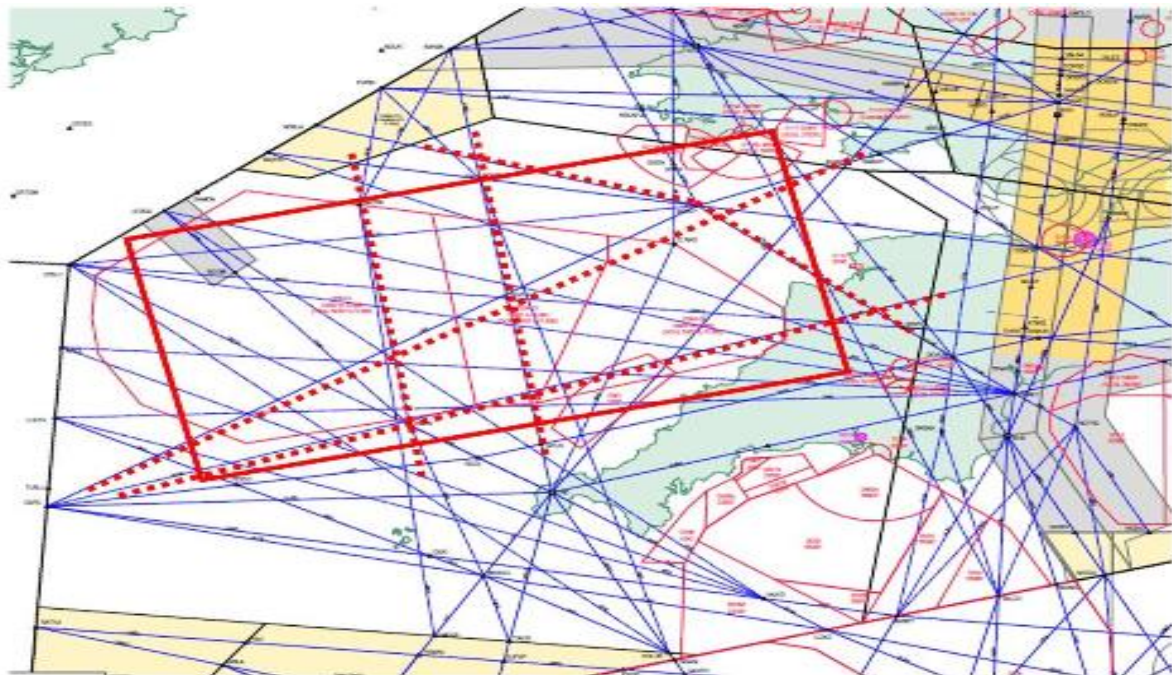
- d. East Anglia – enlarging the EAMTA



e. Mid-Wales and Irish Sea utilising EG201 and NWMTA



f. South-West peninsular – building on D064 and adding overland element.



All of these options would require the establishment or expansion of a segregated airspace structure that will impact the network to some extent.

3.2 Geographical Constraint

In addition to identifying geographical locations that meet the airspace requirements, any chosen location must satisfy the constraint presented by the Design Principle that requires the area to be within reach of UK/USAFE Main Operating Bases. Two of the Main Operating Bases that will routinely use the area are RAF Marham and RAF Lakenheath. Routine training flights will not have tanker support so in order for training time to be maximised and training requirements met, transit time to and from the training area will need to be minimised. Fig 1 below is an extract from an initial airspace requirements paper. It shows the 100nm and 150nm radii from RAF Marham and RAF Lakenheath and gives a good indication of that airspace that is within reach for routine training.

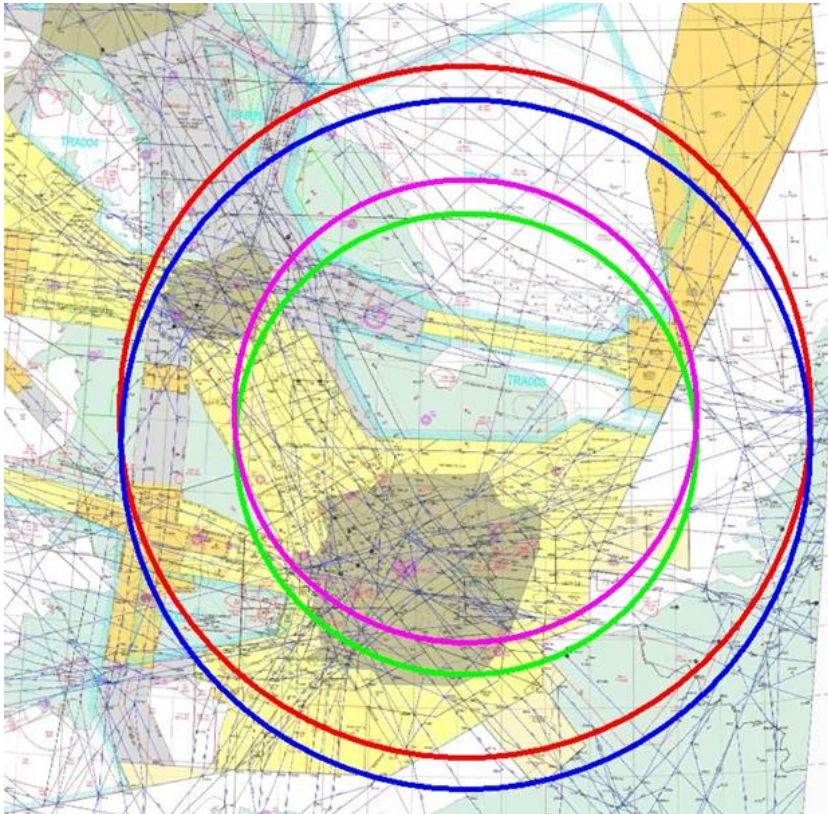


Fig 1. 100nm and 150nm ranges from RAF Marham and RAF Lakenheath

4. Summary

It is already apparent that some of these options either do not meet key requirements or place an untenable burden upon the network; nevertheless they will go forward for evaluation against the Design Principles.