

Ministry of Defence

Modernising Airspace

Options Appraisal (Phase III)

Development of North Sea Airspace for Military Training

Stage 4A Update and Submit

Publication History

Version	Month / Year	Change Requests in this Issue
Issue 1.0	Sep 18	Submitted to the CAA for publication

References

	Description	Hyperlinks
1	Stage 1a Assessment Meeting Presentation	LINK
2	Stage 1a Assessment Meeting Minutes	LINK
3	Stage 1b Design Principles	LINK
4	Stage 2a Airspace Change Design Options	LINK
5	Stage 2a Design Principle Evaluation	LINK
6	Stage 2b Options Appraisal (Phase 1 – Initial)	LINK
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1. Introduction

It is widely reported that the UK airspace is congested and commercial air transport flights are increasing globally year on year; the Future Airspace Strategy has been established to ensure developments take place that increase the capacity of the network, reduce delays and improve the efficiency of flight paths. Military aviation activities are also expected to grow significantly between 2019 and 2025, driven principally by the increase in numbers of existing platforms (Typhoon) and the introduction of new aircraft (for example F35 Lightning). The operation of modern combat aircraft with their longer-range sensors and weapon systems also requires larger volumes of airspace in which to train and become proficient.

2. 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.

In Jan 19, the UK airspace infrastructure will be much the same as today i.e. fixed route networks and airspace structures; as such, the initial airspace development proposed here is potentially a first phase temporary solution to support MOD needs and may need updating as UK modernises airspace and future military requirements emerge. In addition to the Airspace Design other ongoing work is expected to improve processes, protocols and priorities for ASM which are projected to enhance the effectiveness of the airspace development. This includes:

- Improved usage performance against ARES bookings.
- Enhanced processes to allow increased CDM in accordance with agreed protocols.
- Wider utilisation of ASM tools to improve the transparency and visibility of the booking process.

FUA concepts for how the airspace can be modularised to meet the needs of multiple users, as well as minimising the impact on the civil airspace network will be utilised.

It is intended to introduce the new airspace as soon as possible in 2019. This proposal may be supported by airspace management trials and if required airspace design trials.

3. Design Principles

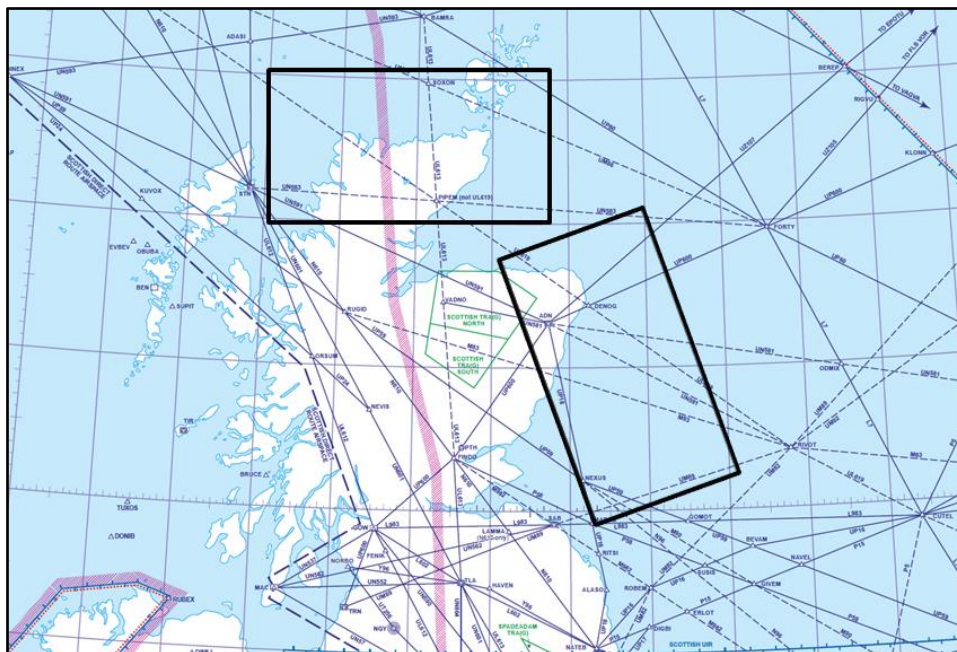
1. The training area will be within reach of UK/USAFE Main Operating Bases.
2. The design will provide a suitable training area.
3. The design will provide a sufficient overland portion for siting land based assets (Training Requirement).
4. Safety – apply current airspace design safety parameters e.g. 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.

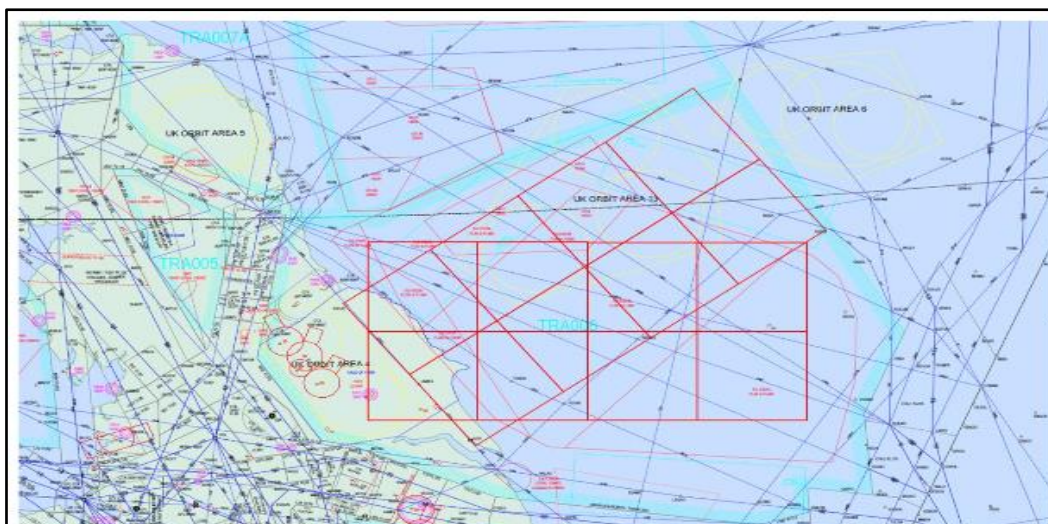
4. Potential Geographical Locations

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:

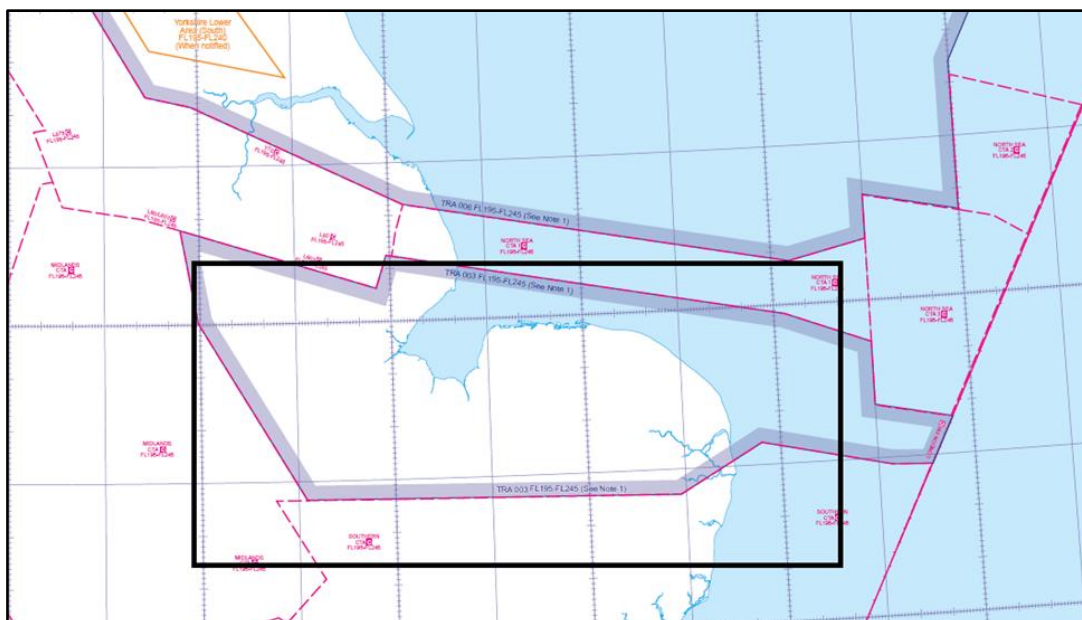
- a. North-West Scotland – creating airspace to the north or north west of Scotland.
- b. North and North-East Scotland – building upon EG613 and adding overland portion.



- 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