

CAA CAP 1616 Options Appraisal Assessment (Phase II Full)

Title of Airspace Change Proposal:	Future Combat Airspace (FCA) Permanent		
Change Sponsor:	MoD		
ACP Project Ref Number:	ACP-2020-026		
Case study commencement date:	23/01/2023	Case study report as at:	03/02/2023

Account Manager: [Redacted]	[Grey]	Airspace Regulator (Engagement & Consultation): [Redacted]	[Yellow]	IFP: [Redacted]	[Orange]	OGC: [Redacted]	[Dark Blue]
Airspace Regulator (Technical): [Redacted]	[Green]	Airspace Regulator (Environmental): [Redacted]	[Purple]	Airspace Regulator (Economist): [Redacted]	[Light Blue]	ATM (Inspector ATS Ops): [Redacted]	[Red]

Instructions

To aid the SARG project leader’s efficient project management, please highlight the “status” cell for each question using one of the four colours to illustrate if it is:

Resolved - GREEN
 Not Resolved – AMBER
 Not Compliant – RED
 Not Applicable - GREY





Guidance









The broad principle of economic impact analysis is **proportionality**; is the level of analysis involved proportionate to the likely impact from that ACP. There are three broad levels of economic analysis; qualitative discussion, quantified through metrics, and monetised in £ terms. The more significant the impact, the greater should be the effort by sponsors to quantify and monetise the impact.

1. Background – Identifying the impact of the shortlist of options (including Do Nothing (DN) / Do Minimum (DM))		Status
1.1	Are the outcomes of DN/DM and DS scenarios clearly outlined in the proposal?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.1	Has the change sponsor produced an Options Appraisal (Phase II - Full) which sets out how Initial appraisal is developed into a more detailed quantitative assessment, moving from qualitatively defined shortlist options to the selected preferred option? [E23]	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.2	Does each shortlist option include the impacts in comparison to the 'do nothing / do minimum' option, in particular: -all reasonable costs and benefits quantified -all other costs and benefits described qualitatively -reasons why costs and benefits have not been quantified	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.3	Where options have been discounted, does the change sponsor clearly set out why?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	The sponsor states in the main document that “f the Sponsor were to do nothing, the safety of Figure 1 – Approximate lateral area of interest of the preferred design 10 both civilian and military aircraft would potentially be compromised, and any further mitigations introduced would diminish the overall training value offered by the exercises.” and in the Options Appraisal that “The Do-Nothing(baseline) option does not satisfy the Design Principles agreed in Stage 1 and does not provide sufficient airspace in order to conduct Large Force Exercises”.	

2. Impacts of the proposed airspace change		Status
2.1	Are there direct impacts on the following:	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.1.1	Examples of costs considered (please add costs that have been discussed, and any reasonable costs that the Airspace Regulator (Technical) feels have NOT been addressed)	<input checked="" type="checkbox"/> <input type="checkbox"/>

2.1.2	Airport/ANSPs	Not applicable	Qualitative	Quantified	Monetised
	- Infrastructure				
	- Operation				
	- Deployment				
	- Other(s)				
2.1.3	Commercial Airlines/General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Training				
	- Economic impact from increased effective capacity				
	- Fuel burn				
	- Other(s)				
2.1.4	General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Access				
2.1.5	Military	Not applicable	Qualitative	Quantified	Monetised
2.1.6	Wider Society, i.e., wider economic benefits, capacity resilience	Not applicable	Qualitative	Quantified	Monetised
2.1.7	Other (provide details)	Not applicable	Qualitative	Quantified	Monetised
2.2	Are there direct beneficial impacts on air traffic control / management systems? Provide details.				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.3	Where impacts have been monetised, what is the overall value (expressed in net present value (NPV)) of the project?				

2.4	<p>Has the sponsor provided an accurate and proportionate assessment of the proposed airspace change impacts?</p> <p>The Sponsor has provided sufficient quantification on the change impacts. It states that “since the impact on other airspace users is assessed to be low and that there are benefits to the environment; further attempts to provide quantified or monetised analysis would be disproportionate and provide little if any additional clarity for Stakeholders”.</p>	   
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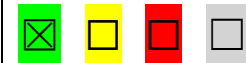
3. Changes in air traffic movements / projections			Status	
3.1	If the proposed airspace change has an impact on the following factors, have they been addressed in the proposal?		   	
		Not applicable	Qualitative	Quantified / Monetised
3.1.1	Number of aircraft movements			
3.1.2	Number of air passengers / cargo			
3.1.3	Type of aircraft movements (i.e., fleet mix)			
3.1.4	Distance travelled			
3.1.5	Operational complexities for users of airspace			
3.1.6	Flight time savings / Delays			
3.1.7	Other impacts			
	Comments:			
3.2	<ul style="list-style-type: none"> Has the sponsor used the most up-to-date, credible and clearly referenced source of data to develop the 10 years traffic forecast and considered the available guidelines (i.e., the Green Book and TAG models) in a proportionate and accurate manner? [B11 and E11] <p>Section 1.4 and Appendix A to the OA contain descriptions of the methodology the Sponsor has used in deriving traffic forecasts and the forecasts derived. In addition, it has provided a base scenario, which was missing in the previous version of the document.</p>			   

- Has the sponsor explained the methodology adopted to reach its input and analysis results? [B11 and E11]

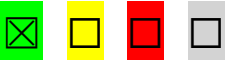
According to Section 1.4, “the traffic forecast for the quantitative Environmental Impact Assessment (NATS Analytics) (Appendix A) was grown using the October 2021 STATFOR forecast and NATS forecast when STATFOR was not available, to estimate the annual impact to 2033 (10 years post deployment)”.

The sponsor has provided a description of the current-day scenario (i.e. baseline) supported by traffic data on GA activity, impacted movements at Newcastle Airport and stakeholder input and heat maps for gliding activity in the region to demonstrate minimal impact to civil air traffic patterns below 7,000 ft. The sponsor has therefore provided a rationale and evidence in accordance with CAP1616 para B26 to scope out environmental impacts on noise, air quality, tranquillity and biodiversity.

The sponsor has used the above-mentioned forecast and BADA data to estimate the annual GHG emissions from 2023 to 2033. The sponsor has explained the methodology and assumptions followed to arrive at these results (NEST v1.8, BADA 4.2, traffic sample days, number of activations and timings, flights impacted) and provided the GHG TAG workbook in a machine-readable format.



3.3	Has the sponsor developed an assessment of the following environmental aspects?				
		Not applicable	Qualitative	Quantified	Monetised
3.3.1	Noise				
3.3.2	Operational diagrams				
3.3.3	Overflight				
3.3.4	CO2 emissions				
3.3.5	Local air quality				
3.3.6	Tranquillity				
3.3.7	Biodiversity				
3.4	What is the monetised impact (i.e., Net Present Value (NPV)) of 3.3? (Provide comments)				

4. Economic Indicators of the ACP		Status
4.1	What are the qualitative / strategic impacts described in the ACP?	
4.2	What is the overall monetised and non-monetised (quantified) impact of the proposed airspace change?	
4.3	What is the Net Present Value of the proposed options? Has the sponsor used this information to progress/discount options? Has the sponsor provided the benefits-costs ratio (BCR) of the proposed options and used it to support the choice of the preferred options? [E44]	
4.3.1	If the preferred option does not have the highest NPV or BCR, then has the sponsor justified the reasons to progress this option? [B50 and E23]	
4.4	<p>Have the sponsors provided reasonable justification for the proportionality of analysis above? In Section 4.1, the Sponsor states that: “The Change Sponsor proposes that since the impact on other airspace users is assessed to be low and that there are benefits to the environment; further attempts to provide quantified or monetised analysis would be disproportionate and provide little if any additional clarity for Stakeholders.”</p> <p>As this is a relatively small change to the airspace, this seems a reasonable justification.</p>	
5. Other aspects		
5.1		
6. Summary of the Full Options Appraisal & Conclusions		
6.1		
Outstanding issues		

Serial	Issue	Action required
1		
2		

CAA Full Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	03/02/2023
Airspace Regulator (Environmental)	[REDACTED]	[REDACTED]	02/02/2023