

CAA CAP 1616 Options Appraisal Assessment (Phase III Final)

Title of Airspace Change Proposal:	Inclusion of Fast Jet Area (North) into UK AIP		
Change Sponsor:	MoD		
ACP Project Ref Number:	ACP-2020-92		
Case study commencement date:	28/04/2023	Case study report as at:	Click or tap to enter a date.

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 Do Nothing (DN) /Do Minimum (DM) scenarios		Status
1.1	Are the outcomes of DN/DM scenarios clearly outlined in the proposal?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.1	Has the change sponsor produced an Options Appraisal (Phase III - Final) which consists of the Full appraisal with any refinements or changes made as a result of the Stage 3 formal consultation with stakeholders? [E24]	Yes, the Sponsor has produced such a document and states that no further evidence has been provided since stage 3.
		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>


2. Impacts of the proposed airspace change		Status			
2.1	Are there direct impacts on the following?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
2.1.1	<i>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)</i>				
2.1.2	Airport/ANSPs	Not Applicable	Qualitative	Quantified	Monetised
	- Infrastructure	X			
	- Operation	X			
	- Deployment			X	X
	- Other(s)	X			
2.1.3	Commercial Airlines/General Aviation	Not Applicable	Qualitative	Quantified	Monetised
	- Training	X			
	- Economic impact from increased effective capacity	X			
	- Fuel burn			X	X
	- Other(s)	X			

2.1.4	General Aviation	Not Applicable	Qualitative	Quantified	Monetised
	- Access		X		
	- Economic impact from increased effective capacity	X			
2.1.5	Military	Not Applicable	Qualitative	Quantified	Monetised
		X			
2.1.6	Wider Society, i.e., wider economic benefits, capacity resilience	Not Applicable	Qualitative	Quantified	Monetised
	- Noise	X			
	- Air quality	X			
	- Greenhouse gas			X	X
	- Capacity/resilience		X		
2.1.7	Other (provide details)	Not Applicable	Qualitative	Quantified	Monetised
		X			
2.2	Are there direct beneficial impacts on air traffic control / management systems? Provide details.   The safe segregation of military exercise traffic from non-participating GAT with an FBZ that allows GAT to route as close as safely possible when the areas are notified as active. AMC controlled activation adheres to principles of FUA. The Final Options appraisal details the beneficial impacts with qualitative evidence.			   	
2.3	Where impacts have been monetised, what is the overall value (expressed in net present value (NPV)) of the project? 10 year Net Present Value of CO2e equivalent emissions of the proposal is £700,674. The Net Present Value of Traded Sector CO2e equivalent emissions is £6,909. A table setting out the calculations is provided in annex B.				
2.4	Are the direct impacts on air traffic management analysed accurately and proportionately? Yes, the direct impacts have been analysed accurately in a qualitative manner. Safety reports have been analysed to consider the most notable effects to GAT.			   	

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?		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		Not applicable	Qualitative
			Quantified / Monetised
3.1.1	Number of aircraft movements	X	
3.1.2	Number of air passengers / cargo	X	
3.1.3	Type of aircraft movements (i.e., fleet mix)	X	
3.1.4	Distance travelled		X
3.1.5	Operational complexities for users of airspace	X	
3.1.6	Flight time savings / Delays	X	
3.1.7	Other impacts	X	
3.1.8	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 best available guidelines (e.g. the Green Book and TAG models?) in a proportionate and accurate manner? [B11 and E11] <p>Yes, the Sponsor clearly references and reproduces the work it has done using WebTag. The traffic forecast covers the opening year, 2023, until 2033 which is 10 years from the year of implementation of the ACP. Projection to 2033 was performed using Eurocontrol's October 2021 STATFOR traffic forecast until 2027 and NATS' extension.</p> <ul style="list-style-type: none"> - Has the sponsor explained the methodology adopted to reach its input and analysis results? [B11 and E11] <p>Yes, the Sponsor explains its methodology in the Annexes to the OA and reproduces the calculations form which it derived its estimates. Please also refer to the CAA's Environmental Assessment for details.</p>		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3.3	Has the sponsor developed an assessment of the following environmental aspects? This ACP has been scaled as a Level M2 change as it concerns changes to airspace above FL245. Therefore, in accordance with the Department for Transport's (DfT) altitude-based priorities , the environmental priority is to reduce aircraft CO2 emissions in support of the		

<p>objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. Therefore, only an assessment of CO2 is required and there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity, and biodiversity. For a Level M2 change, if the anticipated impact on CO2 emissions is negative, an assessment of fuel and CO2 emissions using TAG is required, including annual totals and on a per flight basis. Additionally, for a Level M2 change, environmental impacts that are a direct result of military aircraft or military operations (including civil aircraft carrying out military function under contract) are not required to be considered or assessed. However, consequential environmental impacts from other airspace users (i.e., civil aviation) that are a result of the proposed change must be assessed in accordance with Level 2 requirements.</p> <p>The sponsor has provided a quantitative and monetised assessment of CO2 emissions. Please also refer to the CAA's Environmental Assessment for details.</p>					
		Not applicable	Qualitative	Quantified	Monetised
3.3.1	Noise	X			
3.3.2	Operational diagrams	X			
3.3.3	Overflight	X			
3.3.4	CO2 emissions			X	X
3.3.5	Local air quality	X			
3.3.6	Tranquillity	X			
3.3.7	Biodiversity	X			
3.4	<p>What is the monetised impact (i.e., Net Present Value (NPV)) of 3.3? (Provide comments) 10 year Net Present Value of CO2e equivalent emissions of the proposal is £700,674. The Net Present Value of Traded Sector CO2e equivalent emissions is £6,909. A table setting out the calculations is provided in annex B.</p> <p>The calculations have been implemented using WebTag. They seem to have been implemented appropriately and proportionately given the nature of the proposal, using suitable inputs.</p>				

4. Economic Indicators of the ACP		Status
4.1	<p>What are the qualitative / strategic impacts described in the ACP? - Capacity/resilience: Although some routes for commercial flights will be disrupted, other routes will become available as current MDA</p>	

	<p>constructs will not be used.</p> <ul style="list-style-type: none"> - Traffic: Due to the proximity of the danger areas to the western and northern edges of the UK FIR (London and Scottish UIRs), many flights need to change their UK entry/exit point between the baseline and scenario simulations to produce a valid flight plan - GA: The FJAs will be managed by the Military Airspace Management Cell in order to minimise disruption. Access to the airspace is only denied when active, as per the operating principles. Keeping the activations for only when we will be actively using the airspace will mean access impacts are limited, which was a concern raised by the British Gliding Association (BGA). The base level of the airspace will be FL245 to reduce the impact on lower-level traffic, thus increasing the overall access to airspace, which was a particular issue raised by the British Gliding Association during Stage 1. 	
4.2	<p>What is the overall monetised and non-monetised (quantified) impact of the proposed airspace change? 10 year NPV of CO2 emissions: £700k, ATC deployment costs £40k.</p>	
4.3	<p>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] As only one option is considered, the sponsor has not used the information to progress/discount options. However, given this, it would be disproportionate to require it to consider the information in this way.</p>	
4.3.1	<p>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] N/A – only one option considered.</p>	
4.4	<p>Have the sponsors provided reasonable justification for the proportionality of analysis above? The sponsor says that: “since the impact on other airspace users and the environment is considered to be low, further attempts to provide quantified or monetised analysis would be disproportionate and provide little if any additional clarity for stakeholders”. This seems reasonable given the requirements of CAP1616 and the impact of the change proposed.</p>	

5. Other aspects	
5.1	N/A

6. Summary of the Final Options Appraisal & Conclusions	
6.1	The revised document and analysis seem robust and broadly proportionate to the change involved.
Outstanding issues?	

Serial	Issue	Action required
1	N/A	
2		

CAA Final Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	08/06/2023
Airspace Regulator (Environmental)	[REDACTED]	[REDACTED]	05/06/2023