



CAA CAP 1616 Options Appraisal Assessment (Phase III Final)

Title of Airspace Change Proposal (ACP):	Enabling Remotely Piloted Aircraft Operations at RAF Fairford - HALE		
Change Sponsor:	Ministry of Defence (MoD)		
ACP Project Ref Number:	ACP-2021-078		
Case study commencement date:	02/01/2024	Case study report as at:	29/01/2024

Account Manager: [REDACTED]	[REDACTED]	Airspace Regulator (Engagement & Consultation): [REDACTED]	[REDACTED]	IFP: [REDACTED]	[REDACTED]	OGC: [REDACTED]	[REDACTED]
Airspace Regulator (Technical): [REDACTED]	[REDACTED]	Airspace Regulator (Environmental): [REDACTED]	[REDACTED]	Airspace Regulator (Economist): [REDACTED]	[REDACTED]	ATM (Inspector ATS Ops): [REDACTED]	[REDACTED]

<p>Instructions</p> <p>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:</p> <p style="text-align: center;"> Resolved - GREEN Not Resolved – AMBER Not Compliant – RED Not Applicable - GREY </p>
<p>Guidance</p> <p>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.</p>

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 checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.1	<p>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]</p> <p>Yes, the sponsor having made changes to their proposal after consultation has provided an options appraisal to assess this final option. This takes the form of a qualitative assessment against a suitable set of criteria found in Section 9 of the sponsor's final submission, and a quantitative assessment of the greenhouse gas impact, which is summarised in Annex A.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

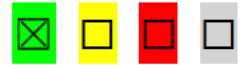
2. Impacts of the proposed airspace change		Status			
2.1	Are there direct impacts on the following?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
2.1.1	<i>Examples of costs considered (please add costs that have been discussed, and 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		
	- 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	X
	- Other(s)	X			
2.1.4	General Aviation	Not Applicable	Qualitative	Quantified	Monetised
	- Access		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
			X		
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? The sponsor has monetised the greenhouse gas impacts of their proposal. This has a Net Present Value of -£2.4m.				
2.4	Are the direct impacts on air traffic management analysed accurately and proportionately?				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	The qualitative assessment of impacts alongside quantitative analysis of fuel burn/greenhouse gas impacts has been conducted accurately and is proportionate for this ACP.				

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>The sponsor has provided an air traffic forecast up to 2034 using the NATS March 2023 Base Case Forecast, assuming a 0.7% growth rate from 2029 onwards.</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 has set out their methodology in Annex A of the final submission, entitled 'Environmental Impact Assessment'. This summarises the assumptions and input data used in the sponsor's quantitative analysis.</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?				
		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)				
	The sponsor has monetised the greenhouse gas impacts of their proposal. This has a Net Present Value of -£2.4m.				

4. Economic Indicators of the ACP		Status
4.1	What are the qualitative / strategic impacts described in the ACP?	
	Qualitative impacts of this ACP described by the sponsor include: -Capacity/reliance: an insignificant impact during the window of activation, to be managed by the Military Airspace Management Cell to minimise disruption via NOTAM. -GA Access: Minimal to no impacts. -Airport/ANSP deployment costs: Costs will be incurred by NATS, RAF Brize Norton and 78 Sqn for air traffic controllers' training and ATM system updates.	
4.2	What is the overall monetised and non-monetised (quantified) impact of the proposed airspace change?	
	The Net Present Value of the environmental impact is -£2.4m, based on the impact of CO2 emissions. This is an increase of CO2	

	of 24,920 tCO ₂ e.	
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]</p> <p>The Net Present Value of the environmental impact is -£2.4m. This information has not been used to progress or discount options since there is only a single option proposed.</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]</p> <p>N/A</p>	
4.4	<p>Has the sponsor provided reasonable justification for the proportionality of analysis above?</p> <p>The sponsor has sufficiently justified why it has conducted a monetised analysis of the fuel burn/greenhouse gas and not other environmental impacts, in line with altitude-based priorities. This is proportionate and in line with CAP1616 requirements.</p>	

5. Other aspects	
5.1	

6. Summary of the Final Options Appraisal & Conclusions	
6.1	<p>The sponsor has produced a reasonable overview of qualitative and quantitative impacts of their proposed option against the baseline. All qualitative impacts have been assessed correctly and in line with CAP1616 requirements. As a result, it is recommended that this ACP is approved.</p>
Outstanding issues?	

Serial	Issue	Action required
1		
2		

CAA Final Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	26/01/2024
Airspace Regulator (Environmental)	[REDACTED]	[REDACTED]	29/01/2024