

CAA CAP 1616 Options Appraisal Assessment (Phase I Initial)

Title of Airspace Change Proposal:	MTMA FASI		
Change Sponsor:	NERL		
ACP Project Ref Number:	ACP-2019-77		
Case study commencement date:	27/01/2023	Case study report as at:	02/03/2023

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 options (including Do Nothing (DN) / Do Minimum (DM))		Status
1.1	Are the outcomes of the Initial Options Appraisal (IOA) (Phase I) 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 completed an Initial Options Appraisal? [E12]	Yes, the Sponsor has completed a 69-page Initial Options Appraisal.
1.1.2	Does the Initial Options Appraisal include: - a comprehensive list of viable options; - a clear description of the baseline scenario; - an indication of the environmental impacts; - a high-level assessment of costs and benefit involved	There is no explicit, comprehensive list of the viable options in the IOA. There is such a list in Tables 4-11 of the DOE. References to this table in the IOA would be useful in default of a full list of viable options. The baseline scenario is not described in the IOA, though it is frequently referred to. It is described in the DOE (Section 4.7). To avoid needless repetition, a more explicit reference to this section could be included in the IOA. The sponsor assesses the environmental impacts of each option in the assessment tables in Section 3 of the IOA. It includes an assessment of greenhouse gas impacts, air quality and noise. The IOA assesses the costs and benefits involved for each option.
1.1.3	Has the sponsor stated on what criteria the comprehensive list of viable options has been assessed?	The Sponsor does not explicitly state the criteria against which the list of options is assessed in the IOA. However it lists the criteria against which it is assessing the options in each table in the assessment. An explicit list of the criteria could be helpful for consultees.
1.1.4	Where options have been discounted as part of the IOA exercise, does the change sponsor clearly set out why?	Yes, the appraisal of each option in Section 3 makes it clear why the rejected options are rejected in the conclusion section. In addition, it makes reference to the tables in the same section for a more detailed description of why those options are rejected.

1.1.5	Has the change sponsor indicated their preferred option(s) as a result of the IOA (Phase I - Initial)? [E12]	No, the Sponsor states in paragraph 7.6 that “It is not proportional for NATS to state their preferred design at this stage as this is dependent on understanding the holistic system wide design. These options will be developed in greater detail in stage 3 and presented for consultation”.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
1.1.6	Does the IOA (Phase I - Initial) detail what evidence the change sponsor will collect, and how, to fill in any evidence gaps and how this will be used to develop the Options Appraisal (Phase II - Full)?	No, beyond a vague statement that some quantitative analysis will be quantified for Stage 3 (paragraph 2.7).	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
1.1.7	Does the plan for evidence gathering cover all reasonable impacts of the change? [E12]	The Sponsor provides no such plan.	<input type="checkbox"/> <input type="checkbox"/> <input checked="" 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 checked="" 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) All costs are qualitative at this stage and highly dependent on changes to CAS (increases). Training costs are considered for ATC delivery, including the potential briefing requirements for Mil ANSPs.</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		

	- 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
	- Greenhouse gas impact		X		
	- Capacity/resilience		X		
2.1.7	Other (provide details)	Not applicable	Qualitative	Quantified	Monetised
					X
2.2	<p>Are there direct beneficial impacts on air traffic control / management systems? Provide details. Option 2 would provide an efficient deconflicted network where possible with added connectivity to Free Route Airspace (FRA) yielding capacity benefits and a reduction in air traffic control (ATC) complexity. This would increase the capacity and resilience of the ATC network through a reduction in controller workload.</p>			<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
2.3	<p>Where impacts have been monetised, what is the overall value (expressed in net present value (NPV)) of the project? N/A</p>				
2.4	<p>Has the sponsor provided an accurate and proportionate assessment of the proposed airspace change impacts? In most aspects of the assessment, the sponsor has provided an accurate and proportionate assessment of the proposed airspace change. However, it has not provided quantified or monetised CO2 NPVs using WebTag or other software, as required by CAP1616, nor has it provided a sufficient justification for not doing so, saying only: "Owing to the presentation of design options as high-level concepts, it would be disproportionate to attempt an accurate quantitative assessment of each option". Either it should expand on this rationale or it should undertake the analysis for each option it wishes to progress.</p>			<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	

3. Changes in air traffic movements and projections	Status
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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 checked="" 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							
	Comments: It is disappointing that the Sponsor has made so little effort to address, even in a relatively perfunctory manner, the number of aircraft movements, passengers or cargo or fleet mix affected by its proposals.							
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] Has the sponsor explained the methodology adopted to reach its input and analysis results? [B11 and E11] 				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Has the sponsor developed an assessment of the following environmental aspects?				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			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				

3.3.5	Local air quality		X		
3.3.6	Tranquillity		X (assessed as noise only)		
3.3.7	Biodiversity	Not assessed			
3.4	What is the monetised impact (i.e., Net Present Value (NPV)) of 3.3? (Provide comments) Not provided.				

4. Economic Indicators of the ACP		Status
4.1	What are the qualitative / strategic impacts described in the ACP? - Option 0: could in turn lead to a negative economic impact due to increased delays from increased ATC workload. - Option 1: Positive impact on GA from increased capacity following airspace change - Option 1 has the potential to contribute positively to the AMS, enabling the safe and efficient growth in capacity and environmental and economic improvements, The economic impact of the other options is not quantified.	
4.2	What is the overall monetised and non-monetised (quantified) impact of the proposed airspace change? Likely to be slightly positive due to increased air traffic capacity, but not quantified at this stage. Quantification is promised for subsequent stages.	
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] Not provided.	
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] Not provided.	
4.4	Have the sponsors provided reasonable justification for the proportionality of analysis above?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

5. Other aspects	
5.1	

6. Summary of the Initial Options Appraisal & Conclusions

6.1 Overall, most aspects of the IOA are well-presented and proportionate. However, it is disappointing that there is so little quantitative analysis, even on the CO2 implications of the proposed options. The single-sentence justification, that it seems “disproportionate”, is highly inadequate. It is certainly against the spirit, if not the letter, of the relevant part of CAP 1616. Either the lack of quantitative analysis should be address, or the justification should be significantly expanded.

Outstanding issues

Serial	Issue	Action required
1	Lack of quantitative analysis for many of the impacts, in particular CO2/fuel burn.	Provide appropriate and proportionate quantitative analysis 02/03/2023: The change sponsor has satisfactorily addressed this post Gateway action.
2	Inadequate justification for issue 1 above.	Expand the justification provided. 02/03/2023: The change sponsor has satisfactorily addressed this post Gateway action.
3	There is no explicit, comprehensive list of the viable options in the IOA.	Provide such a list or refer to Table 4-11 in the DOE 02/03/2023: The change sponsor has satisfactorily addressed this post Gateway action.
4	The baseline scenario is not described in the IOA, though it is frequently referred to.	Refer to description in Section 4-7 of the DOE 02/03/2023: The change sponsor has satisfactorily addressed this post Gateway action.
5	No evidence gathering plan provided	Provide evidence gathering plan 02/03/2023: The change sponsor has satisfactorily addressed this post Gateway action.

CAA Initial Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)	[REDACTED]	[REDACTED]	02/03/2023
Airspace Regulator (Environmental)	[REDACTED]	[REDACTED]	24/02/2023