

CAA CAP 1616 Options Appraisal Assessment (Phase I Initial)

Title of Airspace Change Proposal:	East Midlands FASI (MTMA Cluster)		
Change Sponsor:	East Midlands International Airport Ltd		
ACP Project Ref Number:	ACP-2019-44		
Case study commencement date:	27/10/2023	Case study report as at:	23/11/2023

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]

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 provided a 74-page Initial Options Appraisal. In addition to this they have provided Appendix A which provides a full analysis of each option in table form.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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	<ul style="list-style-type: none"> - There is no list of comprehensive options present in the Initial Options Appraisal document itself, however the sponsor clearly states that all of the options included are the that have been progressed from the Design Principle Evaluation. - The sponsor has correctly identified and explained the distinction between a Do Nothing Baseline and a Do Minimum option to assess the Do Something options against. The sponsor has identified a potential future unviability of the Do Nothing scenario, and so provided an indication of the impacts of the Do Minimum against this. Given the Do Nothing is foreseeably viable, this is a correct interpretation of the CAP1616 guidance. - The sponsor has assessed the options across a variety of environmental criteria, including noise, greenhouse gas emissions, air quality impacts, tranquillity and biodiversity. - The sponsor has included a comprehensive analysis of each option against the Do Nothing Baseline in Appendix A19. In this, these options have been qualitatively appraised across a comprehensive set of potential impacts. 	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.3	Has the sponsor stated on what criteria the comprehensive list of viable options has been assessed?	Yes, the sponsor has outlined the criteria in Section 2 'Initial Options Appraisal Methodology'. This includes descriptions of each of the criteria, and details on how	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

		they will be used to assess options.	
1.1.4	Where options have been discounted as part of the IOA exercise, does the change sponsor clearly set out why?	Yes – the sponsor has clearly listed which options have been rejected, with more detail on how each option has performed against the baseline scenario in a conclusion row in the appendix tables. Options have been accepted/rejected in a consistent manner; however it would be recommended for the sponsor to provide more clarity about why options are preferred over others in this summary section.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.5	Has the change sponsor indicated their preferred option(s) as a result of the IOA (Phase I - Initial)? [E12]	Yes, the sponsor has provided a table setting out if options are preferred, favourable, acceptable, alternate or rejected.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input 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)?	Yes, the sponsor has included a section on 'Information to Collect as Part of FOA at Stage 3' (8.7 in the IOA), which sets out all the evidence they intend to collect for the Full Options Appraisal in the form of a table.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1.1.7	Does the plan for evidence gathering cover all reasonable impacts of the change? [E12]	Yes, the sponsor has covered all of the reasonable impacts in their plan for evidence gathering, including: -a quantified baseline year -noise metrics -fuel burn and CO2 data -air quality impacts -other costs eg. Training, optional and deployment costs -monetised outputs and an NPV table	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

2. Impacts of the proposed airspace change		Status
2.1 <input checked="" type="checkbox"/> <input type="checkbox"/>	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		
2.1.3	- Other(s)		X		
	Commercial Airlines/General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Training		X		
	- Economic impact from increased effective capacity		X		
2.1.4	- Fuel burn		X		
	- Other(s)	X			
2.1.5	General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Access		X		
2.1.6	Military	Not applicable	Qualitative	Quantified	Monetised
		X			
2.1.7	Wider society, i.e., wider economic benefits, capacity resilience	Not applicable	Qualitative	Quantified	Monetised
		X			
2.1.7	Other (provide details)				

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	<p>Where impacts have been monetised, what is the overall value (expressed in net present value (NPV)) of the project?</p> <p>N/A - No impacts have been monetised at this stage.</p>	
2.4	<p>Has the sponsor provided an accurate and proportionate assessment of the proposed airspace change impacts?</p> <p>Yes, the qualitative analysis provided by the sponsor is proportionate and in line with what is required at this stage.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

3. Changes in air traffic movements and 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			
	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] 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<ul style="list-style-type: none"> 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 type="checkbox"/>	<input type="checkbox"/>
3.3	Has the sponsor developed an assessment of the following environmental aspects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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		
3.3.7	Biodiversity		x		
3.4	What is the monetised impact (i.e., Net Present Value (NPV)) of 3.3? (Provide comments) N/A - No impacts have been monetised at this stage.				

4. Economic Indicators of the ACP	
4.1	<p>What are the qualitative / strategic impacts described in the ACP?</p> <p>The sponsor has states that the introduction of PBN will deliver benefits through increasing airspace capacity which will lead to more predictable flight paths and fewer delays. This could increase the frequency of air transport movements, passenger numbers and cargo tonnage carried, thus facilitating an economic benefit.</p> <p>The sponsor has also described the potential economic benefit/disbenefits of potential options depending on if they will result in greater fuel burn/greenhouse gas emissions.</p>
4.2	What is the overall monetised and non-monetised (quantified) impact of the proposed airspace change?

	N/A - No impacts have been monetised at this stage.	
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] N/A	
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] N/A	
4.4	Has the sponsor provided reasonable justification for the proportionality of analysis above? Yes, the qualitative analysis provided by the sponsor is proportionate and in line with what is required at this stage. The sponsor has directly addressed this and set out its plans for a full quantitative analysis at Stage 3.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>


5. Other aspects





5.1	
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6. Summary of the Initial Options Appraisal & Conclusions

6.1	The sponsor has produced a comprehensive Initial Options Appraisal which effectively summarises the baseline, methodology and options that have been progressed to the next stage, alongside a appendix which sets out in tables more detail on the specific performance of each shortlisted option against its criteria. This submission has therefore met the CAP1616 economic requirements at this stage. It is recommended that at the next stage the sponsor provides more detail in its options appraisal why certain options have been preferred to others in its summary sections, as whilst options have been accepted or rejected in a consistent manner, there is little specific rationale provided by the sponsor.
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Post gateway requirements and/or recommendations

6.2 	<p>Recommendation: Provide more detail on why some options have been preferred to others in the summary sections of the options appraisal appendix.</p> <p>Recommendation: Sponsor to include additional clarification of the assessment criteria pertaining to the peer groups within the wider design envelopes, and to include the peer group information in the options appraisal summary tables contained in the IOA.</p>	
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CAA Initial Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)			22/11/2023
Airspace Regulator (Environmental)			23/11/2023