

CAA CAP 1616 Options Appraisal Assessment (Phase I Initial)

Title of Airspace Change Proposal:	Northern LTMA Region Airspace Change (OFJES, CLN etc)		
Change Sponsor:	NATS		
ACP Project Ref Number:	ACP-2025-023		
Case study commencement date:	18/08/2025	Case study report as at:	08/08/2025

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


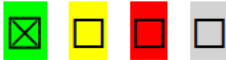
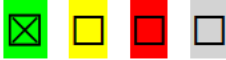


Not Applicable - GREY

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			Status
1.1	Has the change sponsor considered the initial options appraisal against the statutory factors and where applicable, government policy that the CAA is required to consider? [CAP1616f: 3.50-3.53]	The options appraisal was designed to take account of the mandatory design principles and technical considerations for the military and controlled airspace design. The mandatory design principles reflect the key legislative aspects.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>





1.2	Has the change sponsor ensured that the initial options appraisal is objective (unbiased and evidence based), repeatable and consistent? [CAP1616f: 3.54-3.57]	The initial options appraisal took a proportionate approach to gathering the evidence. Quantitative impacts were not assessed. Engagement helped provide the necessary evidence underpinning the change proposed and helped to inform the qualitative assessments. There is a risk of the findings being inconsistent if air traffic patterns change radically.	   
1.3	Has the change sponsor identified criteria for the initial options appraisal and applied these to narrow down the design options to a selected shortlist? [CAP 1616f: 3.55]	The main criteria were the design principles. Where the design principles were not met, (aside from the baseline scenario), then the option was discarded. Two options were on the shortlist including the baseline and the option most acceptable to military stakeholders.	   
1.4	Do the criteria set out clearly why options have been discontinued? [CAP 1616f: 3.55]	Yes, as above	   
1.5	Has the change sponsor undertaken a qualitative and where possible, a quantitative assessment according to the scale of the design options and the nature of the potential impacts? [CAP1616f: 3.58-3.59]	The change sponsor has been directed to focus primarily upon a qualitative assessment. Many of the impacts were not applicable or negligible due to the altitude of the airspace change being proposed. The main impacts which could be quantified have been deemed disproportionate for this ACP	   
1.6	Is the initial options appraisal included in the change sponsor's subsequent consultation material? [CAP 1616f: 3.59]	[Within the Stage 3 proposal, an abridged options appraisal has been presented in the stakeholder slidepack]	   
1.7	Has the change sponsor conducted an initial options appraisal of the potential impacts of each design option against the baseline scenarios? [CAP1616f: 3.60-3.62]	The sponsor has satisfied the requirement of considering the impacts against the baseline scenario which has been labelled, option 0. The Option 0 baseline scenario predicts a potential negative impact on future airspace capacity and reduction in resilience.	   





















		Although it could be made more explicit, the qualitative impact is that the same growth in air traffic predicted in option 0 could be better accommodated in Option 2.	
1.8	<p>Does the initial options appraisal for each design options include, as a minimum:</p> <ul style="list-style-type: none"> - A qualitative assessment of the likely environmental impacts, including all direct and consequential impacts - A high-level assessment of all reasonable costs and benefits involved - A qualitative assessment of the potential impacts on safety <p>[CAP 1616f: 3.61]</p>	<p>The appraisal has been undertaken at a high level with qualitative impacts. The environmental impact on communities has not been assessed due to the altitude. This is particularly important in the area of capacity/resilience in accommodation of additional traffic in the controlled airspace.</p> <p>The key consequential environmental impacts due to fuel burn and emissions from stepped descents have been assessed qualitatively and no change has been indicated where possible. The impact in option 2 has not been written in a way which is compared to the baseline, beyond the inference that option 0 will have more stepped descents than option 2.</p>	
1.9	<p>Has the change sponsor provided an indication of the preferred design option(s)?</p> <p>[CAP1616f: 3.63]</p>	Option 2 has been presented to stakeholders as the preferred design option benefitting from stakeholder support	
1.10	<p>Has the change sponsor used the most up-to-date, credible, and clearly referenced sources of data to assess the impacts of the baseline scenarios and design options?</p> <p>[CAP1616f: 3.65]</p>	The sponsor has not conducted a quantitative assessment, beyond an assessment of airspace usage as part of the current day scenario. This was based upon the most credible data available.	
1.11	<p>Has the sponsor explained the methodology it adopted to reach its input and analysis results?</p> <p>[CAP 1616f: 3.65]</p>	There was limited need for a methodology due to the lack of monetised or quantified impacts.	
1.12	<p>Has the change sponsor identified any evidence gaps in the initial options appraisal and described what evidence will be collected, and how, to fill such gaps and develop the full options appraisal?</p>	No specific evidence gaps have been identified. The main issue is whether the additional controlled airspace volume will be sufficient in the long-run to reduce	

	[CAP1616f: 3.66-67]	workload for air traffic controllers managing incoming traffic flows. Recommendation It would be recommended to provide more detail in the evidence behind the impacts upon capacity/resilience in the baseline option, as this is intrinsic to the rationale for the ACP.	
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2. Potential Impacts					Status
2.1	Has the change sponsor conducted an initial options appraisal of each of the design options using the following metrics and level of analysis? [CAP 1616f: 3.40]				<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.1.1	Communities	Not applicable	Qualitative	Quantified	Monetised
	- Noise	x			
	- Local air quality	x			
2.1.2	Airport/ANSPs	Not applicable	Qualitative	Quantified	Monetised
	- Infrastructure	x			
	- Operational	x			
	- Deployment		x		
	- Other(s)	x			
2.1.3	Commercial Airlines/General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Training	x			
	- Increased effective capacity		x		
	- Fuel burn		x		

	- Other(s)	x			
2.1.4	General Aviation	Not applicable	Qualitative	Quantified	Monetised
	- Access		x		
	- Increased effective capacity		x		
	- Fuel burn		x		
2.1.5	Wider society	Not applicable	Qualitative	Quantified	Monetised
	- Greenhouse gas emissions		x		
	- Tranquillity	x			
	- Biodiversity	x			
	- Capacity/resilience		x		
2.1.6	Military	Not applicable	Qualitative	Quantified	Monetised
	-		x		
2.1.7	Other	Not applicable	Qualitative	Quantified	Monetised
	-	x			
2.2	Has the change sponsor set out why it has not undertaken specific quantified and monetised analysis as part of its assessment? [CAP 1616f: 3.41]	The main resource why further work has not taken place is because it was deemed disproportionate given the rationale underpinning the ACP was primarily to address a potential safety risk, and the main adverse impact on other airspace users would be military and general aviation. The other key reason is that the altitude would be too high to have any impact upon the ground			   
2.3	Has the change sponsor discussed their methodology with the CAA when quantifying and monetising impacts in the groups 'Commercial airlines' and 'Airport/air navigation service provider'?	There was a general broader discussion as part of early engagement prior to the first gateway.			   

	[CAP 1616f: 3.42]		
2.4	Has the change sponsor included an initial indication of safety implications in the initial options appraisal? [CAP 1616f: 3.52]	Yes. It was the first design principle	   


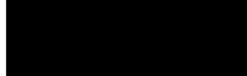
3. Economic Indicators			Status
3.1	Has the change sponsor provided traffic forecasts for year 1 and year 10? [CAP 1616f: 3.22]	No. Although these would be helpful to substantiate the rationale for why the ACP was required, this traffic forecast was not conducted.	   
3.2	Has the change sponsor valued all relevant costs and benefits of the design options using: - Net present value (NPV) - Benefit cost ratio (BCR) - Cost benefit analysis (CBA)? [CAP 1616f: 3.43]	The impacts were not monetised.	   
3.3	When appraising costs and benefits of a design option, has the change sponsor assessed them incrementally against the baseline scenarios? [CAP 1616f: 3.45]	The impacts were generally assessed against the baseline scenario, although the narrative in the qualitative impacts in option 2 could have been more explicit about this.	   
3.4	Has the change sponsor expressed the values derived for the costs and benefits set out above in 'real' rather than 'nominal' terms? [CAP 1616f: 3.46]	The impacts were not monetised	   
3.5	Have values been reported in the base year for the	The impacts were not monetised	   

	assessment? [CAP 1616f: 3.47]		
3.6	As well as taking account of inflation in real prices, has the change sponsor used a social time preference rate? [CAP 1616f: 3.48]	The impacts were not monetised	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

4. Summary of the Initial Options Appraisal			
4.1	What are the qualitative/strategic impacts of the design options?	The key qualitative impacts in this ACP are the impacts upon other airspace users for whom access will be reduced (e.g. military/general aviation). However, this would be traded off against increased safety, improved capacity/resilience and consequential net benefits upon air traffic controllers and fuel burn/emissions by commercial airlines.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.2	What are the overall non-monetised (quantified) impacts of the design options?	None of the impacts have been quantified due to proportionality.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.3	Where impacts have been monetised, what are the overall net present values (NPV) of the design options?	The impacts were not monetised	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.4	Has the change sponsor used the economic assessment to progress/discontinue design options and/or support the choice of the preferred design option(s)? If the preferred design option(s) does not have the highest NPV or benefit cost ratio (BCR), then has the change sponsor justified the reasons to progress this design option(s)?	The sponsor has used the appraisal as part of the rationale to discontinue the status quo as a potential option. Design principle evaluation were used to remove option 1 from the shortlist. The preferred design option benefitted from stakeholder support through early engagement ahead of consultation.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5. Other Aspects			
5.1			

6. Conclusions

6.1	<p>This ACP was submitted by the sponsor to help mitigate a potential risk identified although there wasn't evidence from underlying traffic forecasts as to when the risk was most likely to crystallise in order to necessitate an increase in volume of controlled airspace.</p> <p>The baseline scenario could have been strengthened with supporting evidence. The design principles helped limit the evolution of possible design options to two alternatives of which one was taken forward in response to stakeholder feedback. The preferred option taken to consultation against the do-nothing scenario was assessed qualitatively as improving safety, capacity and resilience for flights coming in from the East. Consequential impacts upon fuel burn, GHG and air traffic control were not quantified or monetised and will not be ahead of consultation. However, the evidence of the impact upon other airspace users should be substantiated through consultation.</p>
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CAA Initial Options Appraisal Completed by	Name	Signature	Date
Airspace Regulator (Economist)			18/08/2025