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CONSULTING SERVICES

Danger Area ACP Support to Step 3a

Environmental Scaling Justifications

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Table of Contents

1 Introduction

1.1 Background

Snowdonia Aerospace Centre (SAC) at Llanbedr Airfield is undergoing a significant investment phase which will involve a number of site improvements and the development of its Aerospace Operation Research, Development, Test and Evaluation (RDT&E) Capability. To assist in delivering this, Snowdonia Aerospace LLP is sponsor to an ACP for Llanbedr Airspace Danger Area (ACP-2019-58) which aims to upgrade and formalise the airspace local to Llanbedr Airfield to provide an environment for the safe operation of all on-going , aerospace RDT&E activities in the vicinity of the airfield.

1.2 SAC ACPs progress to date

The ACP process completed the Develop & Assess Gateway on 28th August 2020, at which point the CAA determined that the ACP was confirmed as a Level 1 change. Subsequently, the ACP has progressed to Step 3a: Consultation Preparation. During this step, the sponsor will plan the stakeholder consultation and engagement, and prepare the consultation documents.

A parallel ACP (ACP-2020-02) to implement an ATZ at the airfield has been paused while the business case supporting continuation of the application has been deferred for the immediate future.

1.3 The requirements of this report

The CAA recognises that 'every airspace change will be different and the extent of environmental assessment will vary from case to case.'[1] SAC wish to present arguments to the CAA to support a qualitative environmental assessment and reduced consultation period during Stage 3 of the Llanbedr Airspace Danger Area ACP process.

SAC believe that the nature of the anticipated operations at Llanbedr Airfield, combined with the low population density in the local area, result in a scenario whereby there is potential to justify a more limited environmental analysis and a reduced period of consultation than would be required for a more traditional ACP at this stage. There is precedent to making such arguments in the St Athan ILS ACP (ACP-2018-35), sponsored by the Welsh Government.

1.4 Structure of report

This report will provide structured and evidenced arguments to support the position of SAC in respect to the environmental assessments applicable to the ACP application. It is recognised that any submission by SAC to the CAA must still meet

[1] CAA (2020), CAP 1616a Airspace design: environmental requirements technical annex

the requirements of CAP 1616 to the satisfaction of the CAA. Thus, our approach will start by identifying the relevant requirements of CAP 1616, before considering them in the context of proposed SAC future operations at Llanbedr.

This is report is structured as follows:

- Section 1: Introduction. (This section)
- Section 2: CAP 1616 requirements. Outlines the requirements in respect of environmental assessments
- Section 3: Scaling environmental assessments, including suggested sources of evidence
- Section 4: Conclusions

2 CAP 1616 Requirements

2.1 Requirements for environmental assessments

Environmental metrics and assessment requirements are set out in Appendix B of CAP 1616.

The consideration and assessment of environmental impacts that can arise from the airspace change proposal should be conducted prior to the Develop and Assess Gateway, and again during Step 3a: Consultation Preparation, when the sponsor undertakes all required environmental assessments, for inclusion in the consultation materials. They are revisited if the design is updated and considered by the CAA in their assessment of the proposal and during the Post-implementation review.

The CAA note that this activity is necessary as it enables those affected by the proposed change to better understand the different options being considered. However, it also recognises that there are circumstances when a quantitative assessment is not appropriate or required. Where the change sponsor believes that there will be no difference in the outputs for a metric, then a qualitative assessment may be used instead.

2.2 Environmental Metrics

CAP 1616 requires consideration of the following factors for Level 1 proposals:

- Noise
- Overflight
- CO2 emissions
- Local air quality
- Impacts on tranquillity
- Impacts on biodiversity

For each of these factors it is necessary to first establish a baseline against which to assess the changes expected as a consequence of implementation of the airspace change. The baseline scenario normally represents the current status (often described as the 'do nothing' option) and becomes the foundation of the 'counter factual' case against which the various options are compared. It must be recognised that, even without the implementation of the proposed change, there may be a change to certain metrics resulting from influences other than the ACP.

Traffic forecasts are required for a period of at least ten years from the intended year of implementation of a permanent airspace change. Where the ACP is expected to enable an increase in aircraft movements, over and above what would be expected to occur if the proposal is not implemented, as is the case with the Llanbedr Airspace Danger Area ACP, the traffic forecast must reflect both the anticipated growth if the proposal was not implemented, and the anticipated growth if the proposal is implemented.

Further clarification on noise modelling is provided in CAP 1616a: environmental requirements technical annex[2].

2.3 Noise metrics

When assessing noise impact, sponsors must demonstrate that they have considered the impacts that any changes in noise will have on stakeholder groups that are sensitive to noise. In particular, sponsors must adequately explain how communities will be affected as a consequence of the proposal.

In quantifying noise impact, the CAA will give more weight to 'primary' metrics over 'secondary' metrics. Primary metrics quantify significant outputs and are usually derived from modelling[3] airport operations based on aircraft movement data and then quantifying and monetarising the effects using the Department for Transport Web TAG[4] outputs.

Data sources required for the modelling include:

- Noise and Track Keeping (NTK) system data: the NTK system records relevant track positional data, in local time, from Air Traffic Control (ATC) Secondary Surveillance Radar (SSR) and Automatic Dependent Surveillance - Broadcast (ADS-B) and combines this with supplementary flight information including call sign, aircraft registration, aircraft type and destination airport.
- Export of aircraft activity from airport 'CHROMA' data base; or
- Other reliable record of aircraft movement statistics at the airport.
- Traffic % growth forecast for ten-year period from the date of implementation of the change or 'scheme' (there may be variable forecasts for 'with scheme' and 'without scheme').

Secondary metrics convey other noise effects. Engagement with affected communities may indicate further metrics that may be useful for explaining noise effects.

In general, noise assessments consider the different aircraft types, and frequency of flights on a route by route basis. Therefore, comparisons can be made between existing routes and proposed routes.

2.4 Overflight

Overflight can be used to explain the operational impacts of proposed airspace changes on communities; it is used to highlight areas where an observer on the ground might perceive that they are overflown by an aircraft or route. Where a proposal is expected to change traffic patterns below 7000 ft, overflight must be portrayed.

[2] CAA (2020), CAP1616a Airspace Change: Environmental requirements technical annex. Available from: https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=8128

[3] Modelling is usually provided using Aviation Environmental Design Tool (AEDT) which dynamically models aircraft performance in space and time to estimate fuel consumption, emissions and noise.

[4] Web TAG provides government Transport Analysis Guidance (TAG) on transport modelling and appraisal; the guidance includes the Web TAG data book which enables appraisal and monetarisation of environmental impacts (including noise and emissions) on society. https://www.gov.uk/guidance/transport-analysis-guidance-tag

The definition of overflight, stated in CAP 1498[5] is:

> *An aircraft in flight passing an observer at an elevation angel that is greater than an agreed threshold, and at an altitude of below 7,000 ft*

It is advised that an elevation angle of either 60 deg or 48.5 deg is applied, and the results presented with information on which elevation angle and altitude thresholds were applied.

The overflight metric, at the same reference is:

> *The number of overflights experienced by a ground-borne observer over a given period of time*

The CAA note that quantifying the number of overflights will help airspace change sponsors to present the possible effects of proposals on local communities. Typically, overflight is represented as contours relating to standard departure and approach routes.

2.5 CO_2 emissions

Changes to CO_2 impacts should be included in the options appraisal process. These changes must be conveyed in the consultation materials. Ordinarily, these effects are modelled using the Aviation Environmental Design Tool (AEDT) (based on aircraft movement data), then quantified and monetised using Web TAG outputs.

CAP 1616 requires the calculation of the total annual (and corresponding change in) mass of fuel burned, and hence CO_2 equivalent (CO_2e) emissions, resulting from the airspace change.

The AEDT modelling software provides a fuel consumption metric that calculates the mass of fuel burned in metric tonnes, as required by the CAA. The corresponding mass of CO_2 emitted is estimated by multiplying the mass of fuel burned by a factor of 3.18 (in accordance with CAP 1616a guidance) to provide a value for the mass of CO_2 emitted for the baseline 'do nothing' option and for each airspace design option. The AEDT model represents an average summer day therefore the value is multiplied by 365 to provide an annual figure.

The AEDT tool requires the same robust data sources (as listed in 2.3) to calculate fuel burn as it does to calculate noise.

2.6 Local air quality

Similarly, changes to local air quality impacts should be included in the options appraisal process. These changes must be conveyed in the consultation materials. Ordinarily, these effects are quantified and monetised using Web TAG outputs. However, this is normally only required when the proposal affects an area in the vicinity of a location that has been designated as an air quality management area.

[5] CAA (2017), CAP 1498 Definition of overflight, Ed 2; Available at: https://publicapps.caa.co.uk/docs/33/CAP_1498_V2_APR17.pdf

2.7 Impact on tranquillity

Tranquillity refers to the remoteness and sense of isolation within the landscape. This is affected and often determined by noise levels and the views and backdrop resulting from an absence of buildings and traffic.

Normally, impacts on tranquillity need only be considered with specific reference to Area of Outstanding Natural Beauty (AONB) and National Parks. However, engagement with stakeholders may identify other local sensitive areas for consideration such as heritage sites and popular visitor locations.

2.8 Impact on biodiversity

It is recognised that the majority of airspace change proposals are unlikely to have an impact on biodiversity because they do not involve ground-based infrastructure. However, sponsors should be mindful that the CAA will, in its environmental statement, verify that any biodiversity factors have been considered proportionately.

To determine this, sponsors should include in their consultations and engagement any potential biodiversity implications associated with design options. In addition, they should be receptive to potential biodiversity impacts identified by stakeholders. Demonstrating that this has taken place will support the CAA in making their environmental statement.

3 Scaling Environmental Assessments

3.1 Introduction

The process outlined in CAP 1616 for conducting Environmental Impact assessments of the effects of ACPs must necessarily take account of the full spectrum of possible ACPs, from those with only very minor or negligible impacts to those with potentially very significant impacts.

In the case of the Llanbedr Airspace Danger Area ACP, the changes sought are very minor in comparison to those accompanying a full range of new instrument flight procedures at a large international airport, for example. Therefore, it is argued that a scaled approach to the environmental impact assessments is appropriate and proportionate, while still meeting the requirements and intent of CAP 1616.

It is possible to identify aspects of the regulation, though considered with reference to CAP 1616, which:

- Do not apply to this ACP – for example, there are no instrument approach procedures to model
- Are considered inappropriate – for example where the noise levels of the air systems using SAC are below the threshold level for nuisance noise normally considered by an ACP
- Cannot be applied – for example, the noise modelling software requires a level of data not available or applicable to SAC operations
- Can be met by other means – for example, using alternative sources of aircraft movements data.

Clearly, there are aspects of the regulation that can be met in full; these are identified below. Additionally, there are aspects which have been considered and either discounted or modified in the context of the extent of the proposed change. As a result, sources of evidence have been suggested which could enable the sponsor to meet both the intent and requirements of CAP 1616, where possible.

3.2 Baseline

The environmental impact assessment seeks to articulate the impact on a variety of environmental factors of the introduction of the change proposed. To do this it is necessary to compare the baseline state (that prior to the introduction of the change) to the future states both with and without the proposed change implemented. Where more than one option is to be consulted upon, the impacts associated with all options should be presented.

3.2.1 Baseline assessment

The baseline assessment is where the impacts of the change not being implemented are articulated. It must be recognised that not implementing an airspace change does not mean that there will be no change to the environmental factors in the future, only that those changes are not attributable to the airspace change.

In the case of SAC's Llanbedr Airspace Danger Area ACP, the baseline scenario, as described in the Initial Options Appraisal documentation, is the continuation of activation requests of the Temporary Danger Area (TDA). It is likely that, given current and presumably future enthusiasm for novel air systems, even without the establishment of a permanent DA, the number of air system movements at SAC will increase over the next 10 years.

3.2.2 Evidence of the baseline scenario

To establish the Baseline environmental impact, SAC will need to identify a representative period of operations, ideally over 12 months, but at least 4 months. CAP 1616a notes that 'conventional noise exposure contours, which are produced regularly for major airports, are calculated for an average summer day over the period 16 June to 15 September inclusive, for traffic in the busiest hours of the day, between 0700 and 2300 local time.' While these guidelines are not relevant to the operations at Llanbedr airfield, the sponsor should aim to identify the equivalent focus on 'busy periods'. This should exclude the recent and unrepresentative 'lockdown' period and should include and identify more intense periods of activity and any seasonal variations.

Ordinarily, quantitative noise metrics would be used to support the Baseline case. However, NTK is not available at Llanbedr as the level of movements is insufficient to justify the installation of the supporting infrastructure; there is no business or regulatory basis to collect this level of data. Instead, SAC will need to use demonstrably reliable records of aircraft movements.

Where alternative sources of evidence are provided, the robustness and reliability of the evidence should be emphasised, whether quantitative or qualitative.

3.3 Understanding the environmental impact

It is necessary to be able to articulate the environmental impact of the implementation of the proposed change. Where more than one option is being considered during consultation, all options must be assessed and the evidence on the relative impacts of the options presented at consultation for comparison against the Baseline case.

In the case of the SAC Llanbedr Airspace Danger Area ACP, the extent of the change to the airspace structure is very limited; there may be some slight modification to the lateral and vertical extent of the airspace, depending on which options are taken forward.

To understand the environmental impact of the proposed change, each environmental factor should be considered in the context of the forecast future air system movements assuming the change is implemented. While the change itself may be assumed not to cause an increase in movements, it may be argued that should the Danger Area become permanent, it may be activated with a shorter notice period than that which applies to the TDA currently. It follows, it may be used more frequently, and may be considered a more attractive site by a greater number of operators.

There is expected to be an increase in interest in novel air systems in the coming decade, and thus a resultant increase in the number of movements at Llanbedr airfield over the same period regardless of the outcome of the ACP. Using the metrics

outlined in Section 2.1 to assess environmental impacts it is necessary to distinguish between those changes in impacts which can be shown to be as a consequence of implementing the change, whether directly or indirectly, and those changes in impacts which would have happened anyway.

The same list of environmental factors is considered for the Baseline scenario and the proposed option(s):

- Noise
- Overflight
- CO2 emissions
- Local Air Quality
- Impacts on tranquillity
- Impacts on Biodiversity

3.4 SAC approach

3.4.1 Compliance with CAP 1616

SAC as sponsor to the Llanbedr Airspace Danger Area ACP will be able to demonstrate at Stage 3a that the requirements of CAP 1616 in respect of environmental impact assessments have been complied with where applicable. Where it is believed that the requirements are not applicable, this is detailed and explained below. Where an alternative means of compliance is proposed to that normally applied to ACPs, the rationale for this approach is explained below.

3.4.2 Preparing for consultation

In each case, it is necessary to be able to articulate the environmental impact of the proposed change in a way that can be understood by the local community and wider society. Providing robust, comprehensible metrics, whether quantitative or qualitative, will enable them to make an informed judgement during the consultation period on the impact of the changes.

3.4.3 Ensuring evidence quality

It is recognised that SAC is not able to generate the same level of data against primary metrics as a much larger airport would have access to. However, SAC should still endeavour to provide an indication of the reliability and quality of the evidence used to assure the CAA and the consultation audience of the robustness of the conclusions presented.

3.5 Change in impact on environmental factors

3.5.1 Noise

As stated in 2.3, the nature and intensity of operations at Llanbedr is such that NTK data is not available. Therefore, the sponsor proposes to provide alternative sources of evidence to support the assessment of the impact of the change on noise levels.

Using evidence from recent activity at the airfield and that planned, the sponsor can provide the following sources of data:

- The number of times the TDA has been activated recently and how this is expected to change if the airspace change is implemented.
- The ADS-B trace of a representative trial profile overhead the airfield for a small (<25kg) petrol, fuel injected engine UAS, including:
    - The duration of the activity, typically around 30-40 minutes
    - An account of the perceived noise levels experienced by an observer on the ground.
- The planned oversea flight profile for a proposed trial with a small jet powered UAS, including proposed duration.
- Estimates of airspace usage in the future, assuming the change is implemented.

The change in noise levels introduced by the implementation of the airspace change is likely to be negligible, however, if available, the sponsor will also provide evidence of:

- How the noise level of a representative air system is perceived on the ground in comparison to other vehicles (e.g. cars), or other familiar, everyday noise sources.
- Consideration of the impact of any changes in the behaviours of the GA community affecting their noise levels and footprint:
    - Consideration of the extent to which they will have to reroute if the DA is activated.
    - Consideration of which communities might be affected if this happens.
    - Consideration of any change in demand from GA community to visiting the airfield and/or the vicinity of the airspace.

Given the absence of NTK data, it is considered both appropriate and proportionate to use the sources of evidence identified above to demonstrate the likely impact on noise levels of the airspace change in lieu of a quantified and monetised assessment.

The area impacted by the proposed airspace change is not an area that sees a regular flow of aviation traffic. The extent to which non-Llanbedr traffic is expected to have to route around the Danger Area when activated is assessed to be negligible, and unlikely to increase from the baseline scenario. The Sponsor will continue to engage proactively with local airspace users to understand the impact of the proposed airspace change on them and on changes in noise levels for the local communities.

3.5.2 Overflight

A consideration of overflight is required if the airspace change is expected to change traffic patterns below 7000 ft. Given the nature of the operations at Llanbedr airfield, there are no traffic patterns to portray. Therefore, it is not possible to portray overflight contours for inclusion in the consultation materials.

However, by referencing the usual and expected operating areas identified at Section 3.5.1, it may be possible to identify any portions of the community likely to be affected by overflight, using the criteria detailed at section 2.4.

3.5.3 CO_2 Emissions

As stated in section 2, the nature and intensity of operations at Llanbedr is such that there is insufficient quantitative data available to support the use of AEDT and Web TAG analysis. Therefore, the sponsor proposes to provide alternative sources of evidence to support the assessment of the impact of the airspace change on CO_2 emissions.

Using evidence from recent activity at the airfield and that planned, the sponsor can provide the following sources of data:

- The number of times the TDA has been activated recently and how this is expected to change if the airspace change is implemented.
- The duration of a representative trial profile for a small (<25kg) petrol, fuel injected engine UAS, including typical fuel burn during the profile.
- The planned oversea trial profile for a proposed trial, including projected fuel consumption, expected to be in the order of 7 litres for the duration of the trial.

The change in CO_2 emissions introduced by the implementation of the airspace change is likely to be negligible, however, if available, the sponsor will also provide evidence of:

- Consideration of how the proportions of launches utilising different power sources might change over the 10-year period.
- The impact of any changes in the behaviours of the GA community affecting fuel burn:
    - Consideration of the extent to which they will have to reroute if the DA is activated.
    - Consideration of which communities might be affected if this happens.
    - Consideration of any change in demand from GA community to visiting the airfield and/or the vicinity of the airspace.

Given the low volume of fuel involved in a typical trial (7 litres), and the potential low volume estimates of annual fuel usage at the and the non-applicability of using NTK data to quantify fuel burn, it is considered both appropriate and proportionate to use the sources of evidence identified above to demonstrate the likely impact on CO_2 emissions of the airspace change in lieu of a quantified and monetised assessment. It is considered disproportionate to convert such low volumes of fuel burn to metric tonnes as required for monetisation using Web TAG data book. The sponsor acknowledges that it is not possible to say with confidence which novel air systems will be used in 10 years' time, how they will be powered (combustion engine or electric), nor from where that power will be sourced (e.g. petrol, biofuel or renewable) which adds further challenges to quantifying emissions.

The area impacted by the proposed airspace change is not an area that sees a regular flow of aviation traffic. The extent to which non-Llanbedr traffic is expected to have to route around the Danger Area when activated is assessed to be negligible, and unlikely to increase from the baseline scenario The Sponsor will continue to engage proactively with local airspace users to understand the impact of the proposed airspace change on them and any associated change in CO_2 emissions effect on the local communities.

3.5.4 Local Air Quality

As noted in the CAA's Options Appraisal Assessment[6]:

> *"No assessment of air quality is provided or required as the proposal does not impact on an Air Quality Management Area"*

The sponsor will consider the value of explaining this concept to the consultation audience in the consultation materials to show that it has been considered and discounted, rather than omitted.

The sponsor can signpost consultees to local reports on air quality commissioned by the local authorities.

3.5.5 Tranquillity

The airfield sits inside the Western coastal boundary of the Snowdonia National Park and borders a Site of Special Scientific Interest; hence, the impact on tranquillity of the proposed change must be considered and presented in the consultation materials.

The sponsor will present evidence on the impact of the proposed airspace change on noise levels as described above. Additionally, the sponsor will continue to engage with local stakeholders, and agencies such as Natural Resources Wales, as well as heritage groups, such as Cadw who operate local sites including Harlech Castle. Both of these, and other similar groups, have been identified by the sponsor during earlier Stages of the ACP process and have had the opportunity to comment on the impact on the views and backdrop in the vicinity of the airfield of the proposed airspace change.

Once again, only the change introduced as a consequence of the implementation of the airspace change needs to be expressed. The change in the impact in respect of tranquillity is likely to be negligible when one compares the baseline scenario with the proposed options.

3.5.6 Biodiversity

While it is recognised that the airspace change is unlikely to have an impact on biodiversity, as it does not involve ground based infrastructure, where possible the sponsor will provide evidence to support the CAA in making their environmental statement. To do this the sponsor will demonstrate that any biodiversity factors have been considered proportionately.

The sponsor can provide the Llanbedr Aerodrome Wildlife Hazard Management Plan as evidence. The change in impact on biodiversity introduced by the implementation of the airspace change is likely to be negligible, however, if available, the sponsor will also provide evidence of:

- Any practices or policies which support, encourage or protect biodiversity within the area affected by the airspace change, for example planting or tree management schemes.
- Any other activities which demonstrate an awareness of the Wildlife and Countryside Act 1981.

[6] CAA (2020), ACP-2019-58 Options Appraisal Assessment (Phase I Initial). Available from: https://airspacechange.caa.co.uk/PublicProposalArea?pID=193

3.6 Presenting arguments to the CAA

Experience from other ACPs suggests that it is possible to present evidence to support the environmental impact assessment of the proposed change which make use of alternative metrics to those quantitative metrics usually employed in the case of larger airports and more significant airspace changes.

In the case of the Llanbedr Airspace Danger Area ACP, there are many areas where the usual approach of collecting quantitative data on aircraft movements, both historical and forecast, is not feasible nor proportionate. Instead, the sponsor will provide alternative sources of evidence which meet the intent of CAP 1616 and enable the consulted communities to understand the impact of the proposed airspace change on the environmental factors discussed above.

The change in the impact on environmental factors is likely to be negligible when one compares the baseline scenario with the proposed options. In addition, the evidence of example profiles from previous and planned trial activity at the airfield supports the argument that noise levels and emissions are below levels where a quantitative analysis would be considered necessary. Furthermore, in the Initial Options Appraisal (Stage 2B) report, section 2.5 provides an assessment of future airspace use. It notes that on site occupancy was at 80 days in the year 2019/2020. This is anticipated to increase to 160 days in the year to 2024.

An indication of traffic movements is available in the Llanbedr Aerodrome movement record 2019, referenced in the Initial Options Appraisal report. This records 789 light aircraft and 20 rotary movements in the year 2019, along with 9 days on which UASs operated.

In each case, the evidence will be presented so that the audiences consulted can be confident that they are making their judgements and responding to the consultation from an informed position.

4 Conclusions

4.1 Conclusions

The CAA states in the documentation relating to Airspace Change that it is both possible and acceptable to make a case for an alternative, non-quantitative approach to describing the environmental impacts of a proposed change.

4.1.1 Scaled environmental assessments

The CAP 1616 requirements have been viewed in the context of the SAC Llanbedr Airspace Danger Area ACP. It is noted that sources of quantitative data are not available at a level sufficient to support a standard approach to assessing the quantified and monetised environmental impacts of implementing the proposed change. Neither is it possible to generate overflight contours.

However, the sponsor can present the following alternative sources of evidence:

- The number of times the TDA has been activated recently and how this is expected to change if the airspace change is implemented.
- The ADS-B trace of a representative trial profile overhead the airfield for a small (<25kg) petrol, fuel injected engine UAS, including:
    - The duration of the activity, typically around 30-40 minutes.
    - An account of the perceived noise levels experienced by an observer on the ground.
    - Typical fuel burn during the profile.
- The planned oversea trial profile for a proposed trial with a small jet powered UAS, including:
    - Proposed duration of profile expected to be in the order of 45 minutes.
    - Projected fuel consumption expected to be in the order of 7 litres of fuel per profile.
- Estimates of airspace usage in the future, assuming the change is implemented.
- The Llanbedr Aerodrome Wildlife Hazard Management Plan.

The change in impact on noise levels, overflight, CO_2 emissions, tranquillity and biodiversity introduced by the implementation of the airspace change is likely to be negligible when one compares the baseline scenario with the proposed options. However, if available, the sponsor will provide evidence of:

- How the noise level of a representative air system is perceived on the ground in comparison to other vehicles, or other familiar, everyday noise sources.
- Consideration of how the proportions of launches utilising different power sources might change over the 10-year period
- Consideration of the impact of any changes in the behaviours of the GA community affecting their noise levels, footprint and fuel burn:
    - Consideration of the extent to which they will have to reroute if the DA is activated.
    - Consideration of which communities might be affected if this happens.

    - Consideration of any change in demand from GA community to visiting the airfield and/or the vicinity of the airspace.
- The usual and expected operating areas to identify any portions of the community likely to be affected by overflight.
- Any practices or policies which support, encourage or protect biodiversity within the area affected by the airspace change.
- Any other activities which demonstrate an awareness of the Wildlife and Countryside Act 1981.

No assessment of air quality is required as the proposal does not impact on an Air Quality Management Area. However, the sponsor will consider the value of explaining this concept during the consultation to show that it has been considered and discounted, rather than omitted, and can signpost consultees to local reports on air quality commissioned by the local authorities.