

**Cranfield Air Park Hybrid Planning Application (LPA Ref. CB/17/05862/OUT)**  
**Response to Noise Consultants Ltd's 'Review: Cranfield Air Park Noise ES Chapter (March 2018)'**

**Background and Summary**

Prior to responding to the individual recommendations put forward by Noise Consultants Ltd's 'Review: Cranfield Air Park Noise ES Chapter (March 2018)', whereby we note the Report was commissioned by Cranfield Parish Council, it is important to put into context the current Aviation Noise Policy and the recently cited consultation and guidance documents referred to in the Report.

Cranfield Airport is applying for planning permission (LPA Ref. CB/17/05862/OUT) to build a larger Air Park facility to serve business jets in order to replace the previous Air Park reserved matters planning permission granted on 25 June 2008 (LPA Ref. 08/00613/RM) and in which it has been implemented.

It is important to understand that the Airport is already capable of receiving the quantum and type of aircraft that are expected to be attracted by the construction of the proposed Air Park without any changes to the airspace or the route into or out of the Airport. The proposals are for the infrastructure and buildings to make the Airport a more desirable location for these types of aircrafts. Therefore, it must be understood that the current hybrid planning application is just for planning permission to build the infrastructure to provide an enhanced reception and destination experience to make Cranfield more attractive to business jet aircraft users. The noise assessment is provided to demonstrate the anticipated changes in noise levels that may occur as a result of the change in operations at the Airport.

The newly published guidance documents, including those published after the submission of the EIA to support planning application CB/17/05862/OUT, are mainly focussed on proposed changes to airspace. As these applications entail no change to airspace, these documents do not materially change the outcome of the assessment nor the mitigation and Noise Management approach that has been taken to control the noise from the Air Park proposal.

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### **Discussion and Justification**

On first inspection of Noise Consultants Ltd's Report, it would appear that many aspects of new Aviation Policy and guidance have been omitted from the EIA that was submitted to support application CB/17/0582/OUT. However, the status and publication date of these documents is important in understanding our response and their relevance to this application. The new guidance almost exclusively refers to 'airspace change' and not to 'aircraft operational changes to airspace usage' such as those being proposed at Cranfield Airport as part of application CB/17/05862/OUT. The distinction is important in the context of the newly emerging policy and guidance as these terms have quite specific meanings. These newly published documents do not affect the noise assessment supporting this application because either i) they refer to other aspects of aviation airspace change than being proposed or ii) are still in consultation and no new policy for this type of change is as yet available to act upon and iii) even if they were adopted, contain no new guidance that would materially alter the outcome of our assessment.

Firstly, we refer to the consultation document cited by the Noise Consultants Ltd, 'The Consultation Response on UK Airspace Policy' published in October 2017 this sets out the different types of changes to the aviation airspace and provides the descriptors that replace the older Tier based system:

It is clear from the descriptions given in section 20 that the application for a larger air park at Cranfield constitute a Tier 3 change, there are no changes proposed to the published airspace around Cranfield (Tier 1) nor are there any proposed changes to the ATC operating procedures (Tier 2). Under the new categorisation in section 21 Tier 3 changes are now referred to as 'Aircraft operational changes to airspace usage'. This section is specific on the terminology so as to distinguish the difference between Tier 3 operational changes described as 'Aircraft operational changes to airspace usage' and Tier 1 changes to the airspace which are described as 'Airspace change'. These terms are important and reflect the intention for there to be a different level of assessment required for each Tier of change in the newly published guidance. By defining these terms, the new guidance is intended to be commensurate with the scale of change being proposed and that a commensurate level of assessment is appropriate, depending on the type of change proposed.

#### **Use of the 'tier' system**

- 20 As set out in the consultation document, the government suggested a three category approach to describe airspace related changes. These were:
- Tier 1: Changes to the permanent structure of UK airspace, including temporary changes and airspace trials;
  - Tier 2: Planned and permanent changes to ATC's day-to-day operational procedures (e.g. vectoring practices); and
  - Tier 3: Changes to aircraft operations – for example significant shifts in the distribution of flights on particular routes. These may not be planned decisions to change the use of airspace, but shifts over time and in response to changes in demand.
- 21 **The government has decided not to proceed with the 'tier' categorisation proposal.** The categories will instead be renamed as per the list below. These changes have been reflected in the CAA's Air Navigation Guidance:
- The phrase 'Airspace change' replaces 'tier 1'.
  - The phrase tier 2 will remain in the near term (see question 1b). However, in future, we will also not proceed with the term tier 2. Instead this will be known as 'permanent and planned redistribution of air traffic'.
  - The phrase 'Aircraft operational changes to airspace usage' will replace 'tier 3'.

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There are no proposed changes to the Cranfield's airspace to accommodate the Air Park proposals, only infrastructure buildings and operational changes. Therefore, references in guidance documents to an **'airspace change'** are not applicable to the development at Cranfield. Guidance given regarding **'aircraft operational changes to airspace usage'** are relevant to this development.

Secondly, I refer to the other cited document by Noise Consultants Ltd, 'The Air Navigation Guidance 2017' also published in October 2017.

The Air Navigation Guidance 2017 separates out the **'Aircraft operational changes affecting the use of airspace'** under a separate heading in sections 4.15 and 4.16. The production of the Noise Assessment which accompanies the EIA fully complies with the requirements of paragraph 4.15 in this section. Section 4.16 states 'It will be the responsibility of the CAA to set the specific guidance for aircraft operational changes affecting the use of airspace...', but this guidance has not yet been published.

It is asserted by me that section 4 of The Air Navigation Guidance 2017 is the relevant guidance for operational changes to airfields. Section 4.1 introduces the concept of a fair balance between the economic benefits of the aviation industry and the negative impacts of noise it can have on the local community. Section 4.2 again considers **'airspace changes'** of which there are none proposed for Cranfield as part of this application and therefore not relevant to the air park application.

Section 4.3 is relevant and is reproduced here:

'The aviation industry should also seek to have high quality and open engagement with their local communities with respect to not just forthcoming proposals but also with regard to their day to day air operations. Moreover, the need for effective noise management should be one of the key objectives of the industry and be enshrined in its ethos. This includes having good noise complaint handling procedures as well as full transparency on its air operations and the noise impact which they create. Sponsors should also be aware of and follow the government's policy surrounding compensation arrangements for airspace changes.'

High quality and open engagement has been done prior to submission of the application with the local communities through detailed Consultation events and presentations. Our appointed aviation noise expert attended and spoke to residents at two separate events held at the airfield and presented the noise assessment at a meeting of Cranfield Parish Council. The EIA has taken this approach fully on board as part of the mitigation strategy to provide a commitment to on-going noise management at the airport and so is adopting this ethos. This mechanism is expected to fully comply with this objective.

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Section 4.4 goes onto say:

'It is expected that in due course, ICCAN will produce more detailed best practice guidance on what is to be expected from the industry in respect of noise management, including how communities should be engaged in the process, and what airports, airlines and air navigation service providers should take into account.'

The following extract shows the assertion in the Noise Consultants review that those documents clearly amend the Government's policy on aviation noise relevant to the Cranfield air park. I refute that the document sets out any change for the Lowest Observed Adverse Effect Level (LOAEL) for operational changes at the Airport and only sets out a change for modifications to 'airspace changes'.

The changes in policy as set out by these amendments and the implication to the assessment presented in the ES are:

- The clear definition of UK Aviation LOAEL (Lowest Observed Adverse Effect Level) of 51 dB LAeq, 16hr as oppose to 57 dB LAeq, 16hr as set out by the ES;

The only reference to the LOAEL being changed in this document appears in section 3.5 under the title of 'Assessing the noise implications of proposed **airspace changes**'.

We reproduce here the 'clear definition of UK Aviation LOAEL' referred to by Noise Consultants Ltd:

'For the purposes of assessing and comparing the noise impacts of **airspace changes**, the Government has set a LOAEL of 51dB LAeq16hr for daytime noise and 45dB LAeq8hr for night time noise and the CAA should ensure that these metrics are considered.'

I have highlighted in bold the important distinction made which qualifies the use of the LOAEL being set at 51dB only for **airspace changes**, which may lead to new areas being affected by noise. Reviewing the extent of the 51dB noise contour would support wider consultation on airspace changes. In our case, we have already consulted widely, and Government Policy is clear in respect of aviation noise: the 63dB Noise contour is the Significant Observed Adverse Effect Level (SOAEL) and this determines if sound insulation for affected properties is required. In all other instances, the emphasis is on managing and reducing noise and responding appropriately to complaints. The Noise Management Plan (NMP) would investigate and respond to all noise complaints regardless of the level they were exposed to.

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The section that provides guidance regarding **Aircraft operational changes affecting the use of airspace** does not set a LOAEL value. The CAA have yet to provide further guidance. The Airport will take this new best practice guidance into account as part of the NMP once it is published and available for review. The EIA is compliant with current guidance.

The other two documents referred to by the Noise Consultants are CAP1616 and CAP 1616a. Both these guidance documents took effect on 2nd January 2018. As the EIA along with application CB/17/05862/OUT) was submitted in December, it was not possible to take account of these documents in the application.

### Airspace Design:

Guidance on the regulatory process  
for changing airspace design including  
community engagement requirements

CAP 1616



Again, we re-emphasise that the proposed development at Cranfield Airport for a larger Air Park facility does not include any proposals to change the airspace to which these documents refer.

Therefore, the approach adopted to mitigate and control the noise generated by the Airport is to produce an annual NMP which sets out the current impacts and those expected over the coming years. This approach is commensurate with the level of operations at the airport and is an appropriate mitigation strategy for this development which was consulted on numerous occasions with the Local Planning Authority and will be secured through a planning condition to ensure that the NMP is implemented appropriately.

Recommendation No.	Noise Consultants Ltd's Recommendation	Applicants' Response
1	<p><b><u>Aircraft Ground Noise Impact</u></b></p> <p>It is recommended that evidence is provided to justify these noise sources not being undertaken as part of the assessment or alternatively an assessment be provided through addendum.</p>	This will be incorporated into the Noise Management Plan (NMP).
2	<p><b><u>Aviation Policy and Guidance</u></b></p> <p>The ES is revised to ensure that latest policy and guidance in relation to aviation noise is considered, including relevant assessment metrics. Assessment metrics include:</p>	The ES submitted in support of CB/17/05862/OUT already adheres to current policy. The new policy changes cited are not relevant to this assessment. It would be inappropriate to revise the ES as suggested.

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	<ul style="list-style-type: none"> <li>• The clear definition of UK Aviation LOAEL (Lowest Observed Adverse Effect Level) of 51 dB LAeq, 16hr as oppose to 57 dB LAeq, 16hr as set out by the ES;</li> <li>• The replacement of the former 57 dB LAeq, 16hr metric for the '<i>approximate onset of significant community annoyance</i>' with 54 dB LAeq, 16hr;</li> <li>• the two bullet points above are in direct response to the CAA's SONA14 research which updates the dose-response relationship for aircraft noise from that adopted and relied upon within the ES;</li> <li>• The setting of a number of metrics that help describe how developments will change the perception of aircraft noise i.e. N65 and N60 – which should be considered to support 'decision-making';</li> <li>• The replacement of the SEL metric for night-time noise assessment with the night-time LAeq, 8hr night-time and the LAmx through the N60 metric. The SEL metric is relied upon within the ES but is no longer a key feature of policy and decision making;</li> <li>• The clear and distinct use of the Government's WebTAG methodology to describe the overall impact of a scheme by means of the monetisation of human health effects. The consideration of human health effects is a key consideration The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (herein referred to as the 2017 EIA Regulations).</li> </ul>	

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3	<p><b><u>Aviation Policy and Guidance</u></b></p> <p>Changes in Government policy with respect to noise insulation and compensation are considered within the ES and reflected within the assessment and the applicant's proposals.</p>	<p>The changes to policy are not relevant to operation changes at an airport. See explanation above.</p>
4	<p><b><u>Aircraft Noise Modelling</u></b></p> <p>Full details of the noise modelling are provided for all scenarios by aircraft type, runway direction and day/night period. This should also include justification support assumptions such as modal splits and route locations.</p>	<p>Details of the noise modelling and aircraft types are given in the appendix of the ES. The modal split is 70/30 for runways 21 and 03 respectively. The routes are not changing and are fully published through the CAA.</p> <p>The use of INM is justified to allow comparison with other airfields which used the same software for their assessments. Use of the different modelling techniques would not allow direct comparison.</p>
5	<p><b><u>Aircraft Noise Assessment</u></b></p> <p>The aircraft noise assessment is comprehensively updated to include:</p> <ul style="list-style-type: none"> <li>• Daytime and night-time policy metrics as adopted by Government through the latest policy updated i.e. Daytime and Night-time LOAEL, N60, N65, WebTAG and overflight metrics;</li> <li>• LAmass contours for a range of aircraft types expected to operate at night;</li> <li>• Noise change contours – which is required to establish the significance of the development in EIA terms and to assess the impact upon schools with relevant policy, standard, guidance and research, underpinning the schools assessment.</li> </ul>	<p>The ES already adheres to current policy. The new policy changes cited are not relevant to this assessment. It would be inappropriate to revise the ES as suggested.</p>

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6	<p><b><u>ES – Noise Impact Scenarios</u></b></p> <p>The ES Chapter is revised, or an addendum produced that clearly addresses 'with' and 'without development' cases for the two assessment years considered (i.e. 2022 and 2027 baseline w/o development) to bring the assessment in compliance with 2017 EIA regulations.</p>	<p>The existing scenario of the airfield will be the same as for these future years assuming there is no further decline in the number of movements at the airport. Therefore, this information already existing in the ES and so no revision or addendum is required.</p>
7	<p><b><u>ES – Health Impact Assessment</u></b></p> <p>An assessment of the noise impact of the development upon human health be undertaken in line with Government policy in relation to aircraft noise. EIA regulations and the Noise Policy Statement for England require that human health be considered.</p>	<p>This refers to the use of WebTag which is recommended in the new guidance for changes to airspace design which are not part of these proposals.</p> <p>The implementation of a Noise Management Plan will consider the mitigation that will reduce the impact of noise on human health.</p>
8	<p><b><u>Aircraft Noise Insulation</u></b></p> <p>The applicant reconsiders its obligations for financial assistance towards noise insulation under Government policy and ensure that these obligations form part of the proposals. It is recommended that the application considers how such proposals would meet and exceed Government expectations.</p>	<p>A commitment will be included in the NMP and will be secured through a planning condition.</p>
9	<p><b><u>Mitigation and Restrictions</u></b></p> <p>The applicant should consider whether any firm proposals for mitigation and/or restrictions should be volunteered as part of the proposals. The applicant is encouraged to follow Annex 1 and Annex 2 of EU Regulation 598 as a means of exploring options that would reduce the aircraft noise impacts associated with the development.</p>	<p>The proposals for mitigation are set out in the draft planning condition.</p>



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10	<p><b><u>Cranfield Air Park Noise Assessment Review</u></b></p> <p>The review comments provided within Table 1 should be reviewed by the applicant and any technical points raised within addressed (see appendix)</p>	Addressed above and notes in the table below.

**Appendix – Noise Impact Assessment – Section Review**

Reference	Review Comments	Responses
1.1	Scope is satisfactory given the scheme description with the exception of noise from aircraft on the ground.	Noted that the scope is appropriate. Ground noise addressed earlier.
2.1.2	In relation to the WHO Guidelines for Community Noise, the ES does not cite the entire guideline. It also fails to state the WHO Night Noise Guidelines, 2009 which should be considered relevant to this assessment.	Noted that appropriate guidance has been followed. An appropriate noise assessment for the night time period has been done.
2.3 Aviation Policy	<p>This section does not address the recent changes to Government policy as consulted and indicated through the Air Navigation Guidance 2017 and Airspace Consultation Policy Paper. These documents seek to amend the Aviation Policy Framework 2013 and were published in October 2017.</p> <p>These documents bring forward new policy and guidance in relation to aviation noise and update the dose-response relationship for aircraft noise to be in line with the SONA14 research. This brings forward a range of new and updated noise assessment metrics which have not been reflected in this section or later within the ES. It also results in a clearer alignment between noise and health through use of monetised health outcomes. This is brought forward within CAA Guidance CAP1616 and CAP1616a.</p> <p>It is also important to note that the policy shift also will result in changes to the Government's noise insulation and compensation policies which are</p>	<p>See explanation above. The EIA is compliant with the current and emerging published guidance and policy that is relevant to the proposals. The Noise Management Plan will require the airfield review any new policy or legislation and provide a way of implementing it.</p> <p>The guidance documents bring forward new policy for airspace change (Tier 1) but they do not (yet) set out the policy for (Tier 3) operational changes.</p> <p>The policy may shift, but has not as yet, therefore it is not reasonable to speculate on future policy.</p>

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Reference	Review Comments	Responses
	<p>described in this section of the ES. The changes, described below are that the Government will:</p> <ul style="list-style-type: none"> <li><i>Change the policy wording to remove the word 'development' in terms of when financial assistance towards insulation is expected so that compensation is applicable regardless of the type of change (infrastructure or airspace change);</i></li> <li><i>Change the policy wording to allow for financial assistance towards insulation in the 63dB LAeq level or above to be applicable regardless of the level of change that causes a property to be in that noise contour level (i.e. remove requirement for a minimum 3dB change);</i></li> <li><i>Additional wording to encourage an airspace change promoter to consider compensation for significantly increased overflight as a result of the change, based on appropriate metrics which could be decided upon according to local circumstances and the economics of the change proposal; and</i></li> <li><i>Include a requirement of an offer of full insulation to be paid for by the airport for homes within the 69dB LAeq or more contour, where the home owners do not want to move. 2.40 Question 1d received</i></li> </ul> <p>These changes will be formalised within the Government's Aviation Strategy which is to be released in 2018.</p>	<p>It is inappropriate to state that the Government <u>will</u> change the policy wording, before it has done so.</p> <p>When the wording changes in the policy it will be implemented through the Noise Management Plan.</p> <p>Again not yet formalised.</p> <p>This is consultation and the terms and wording has not yet been defined. It is inappropriate to speculate on unpublished changes.</p> <p>Until the Government or CAA updates the policy sections relevant to this application then it cannot be taken into account in this application. An application should not wait until policy is put in place it must be judged on the current policy.</p>
3.0 Assessment Methodology	<p>Bullet 1 refers to construction noise assessment according to BS 5228-1:2009+A1:2014, which is appropriate.</p> <p>Bullet 2 refers to BS4142:2014 being used for the assessment of fixed plant, this is appropriate.</p> <p>Bullet 3 - Noise from aircraft operations is assessed with respect to the APF using INM, along with WHO Guidelines. As highlighted for Section 2.3, aviation noise assessment policy was amended in October 2017. The use of INM is no longer considered current by the CAA whose guidance within CAP1616a now states that modelling should be undertaken using AEDT and provide guidance on that basis.</p>	<p>Noted that appropriate guidance has been followed.</p> <p>Noted that appropriate guidance has been followed.</p> <p>This has been addressed earlier.</p> <p>CAP 1616a was implemented after submission.</p> <p>Noted but the correct guidance has been followed.</p>

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	<p>Bullet 4 – noise from road traffic is included within the assessment methodology but is not mentioned in Section 1.1 with respect to scope.</p> <p>There is no mention within the document of the IEMA Guidelines for Environmental Noise Impact Assessment 2014. This document is considered helpful with respect to aligning assessment under EIA with English Noise Policy (NPSE).</p>	<p>The IEMA guidelines are not endorsed by the IOA and are not considered in this assessment.</p>
4.0 Assessment Criteria	<p>This section sets LOAEL, SOAEL and UAEL (incorrectly defined as UOAEL within the Technical Annex) for different sources of noise and locations within dwellings. This approach is considered appropriate to ensure alignment with the NPSE.</p> <p>This approach adopted within the ES however is presented without any introduction or relevance to associated policy or guidance. It does not take into account the approach described within the IEMA guidelines.</p> <p>A number of the values selected do not appear to align with recent precedents and/or Government policy cases. For example, the selection of 57 dB LAeq, 16hr as a daytime LOAEL does not align with the latest Government policy direction of 51 dB LAeq, 16hr, and no consideration has been given to the Government's night-time LOAEL of 45 dB LAeq, 8hr (outdoor).</p> <p>The selection of these assessment metrics has not considered the WHO Night Noise Guidelines for Europe which also set LOAELs and interim targets which have been commonly adopted as SOAEL values as part of other UK Infrastructure projects.</p> <p>The use and setting of L<sub>Amax</sub> values as UAEL is misjudged without being considered as a external value aligned with modelling and/or to account for the number and occurrence of maximum noise events.</p> <p>The assessment criteria for road traffic noise does not accord with the NPSE as changes in noise level are aligned with effect level exposure values, LOAEL, SOAEL and UAEL. The use of DMRB Volume 11, Section 3, Part 7 is however appropriate for describing the magnitude of change – it is not however correct to align these changes with exposure levels.</p>	<p>Noted that the approach of using these terms is appropriate. The UAEL is a minor typo.</p> <p>Explained above.</p> <p>The ES already adheres to current policy and any new policy changes are not relevant to this assessment and it is not considered appropriate to revise or update.</p> <p>The changes to the LOAEL cited are not relevant to operational changes and notwithstanding this do not materially affect the assessment or the proposed mitigation that can be adopted.</p> <p>Addressed above.</p> <p>Noted that it is appropriate to use DMRB.</p>

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	<p>The criteria adopted for the assessment of fixed plant noise is considered appropriate.</p> <p>This section and the following assessments do not appear to consider other non-residential noise sensitive receptors such as schools. In the case of schools, it is considered that the assessment should have given specific consideration with respect to aircraft noise and the Holywell Middle School - Secondary School, Cranford.</p>	<p>Noted that appropriate criteria have been used.</p> <p>Schools are clearly shown on the noise contour maps.</p>
Section 5.0 Baseline	<p>The baseline survey provides some helpful information regarding existing levels around the airfield and at some of the key locations.</p> <p>However, no airport or airfield activity information is provided to contextualise the measurements taken during the survey – i.e. the number of aircraft arrivals and departures, along with the operating directions – particularly during the long-term survey work.</p> <p>No summary is provided for the long-term levels at MP1, MP3 and MP5. A summary, including events that exceed 65 dB LAmax and 60 dB LAmax day and night would helpful for decision-making purposes.</p>	<p>Noted that this is useful to the assessment.</p> <p>The airport activity was logged and included a number of business jet and larger aircraft activity into and out of Cranfield.</p>
6.0 Demolition and Construction Noise Assessment	<p>The assessment identified, correctly, that the main construction noise issues are related to the proximity of the residential dwelling, Four Winds to the west of the proposed Airpark.</p>	<p>Noted</p>
6.1 Construction Management Plan	<p>The ES proposes a Construction Environmental Management Plan (CEMP) be prepared prior to the commencement of the work. This is considered best practice and the items covered in this section are what should normally be covered in such a plan.</p> <p>In addition to the CEMP, the ES provides proposed working hours which are limited to weekday daytime periods and Saturday mornings only. This is again standard practice.</p> <p>The ES cites that alternatively, construction consent could be addressed through a Section 61 agreement prior to commencement of the works.</p>	<p>Noted that the CEMP is considered best practice.</p> <p>Noted that standard practice has been followed.</p> <p>Noted that this is an option.</p>

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6.2 Construction Noise Assessment	<p>The assessment, which is supported by calculations presented in Appendix D, shows that there is potential to exceed the 65 dB LAeq, T criteria for significant construction noise effects at Four Winds. The calculations provided in Appendix D are indicative only, and are unlikely to be supported by a firm construction methodology or any onboarding of a construction contractor at this stage.</p> <p>Significant effects from construction noise do not mean that such effects cannot occur. Based on recent precedents on projects such as HS2 and Thames Tideway Tunnel, the levels of construction noise indicated may be significant in EIA in accordance with the BS5228:2009 guidance but are not of a magnitude to warrant measures such as sound insulation or temporary rehousing. Although that be the case, this does not forgo the requirement for such effects to be mitigated and minimised as per Government noise policy. On this basis, it is recommended that should the development be consented through planning that consents for construction are approved through Section 61 of the Control of Pollution Act 1974.</p>	<p>Noted that is not possible to be more detailed at this stage and that the nearest sensitive receptor was identified.</p> <p>In consultation the EHO at Central Bedfordshire Council preferred to control the Construction Noise through the use of a CEMP rather than formal Section 61 applications. The CEMP will be conditioned. This does not prevent the construction contractor applying for prior consent through the section 61 process. It should be noted that the Cranfield Airpark is a much smaller scale development than either HS2 or Thames Tideway with far fewer sensitive receptors surrounding the construction works.</p>
6.3 Construction Vibration	<p>The assessment presented shows that no vibration effects are expected given the distance and nature of the construction works. This conclusion is supported.</p>	<p>Noted that the conclusion is supported.</p>
7.0 Operational Noise Assessment 7.1 Plant Noise	<p>The operational noise assessment considers the impact of any fixed plant associated with the development. It is recognised that the location and type of plant at this stage is unknown and as such the assessment seeks to set a design requirement for which the detailed design of any fixed plant should comply to. Such an approach is typical and is often addressed through a suitable worded planning condition.</p> <p>The use of the BS4142:2014 standard is appropriate for this purpose however the application of the standard in this context is not considered appropriate and it is our view that insufficient information is provided to demonstrate that a full assessment has been undertaken. One example of this is the selection of the background noise level, where insufficient information is provided to justify the selection of the 40 dB LA90 and 30 dB LA90 daytime and night-time levels respectively.</p>	<p>This will be controlled through a planning condition.</p>

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	<p>The BS4142:2014 standard describes a number of outcomes and their significance depending up how the specific source of noise rating level compares to the background noise level. Such a comparison is made within the ES within Table 7.1, this assume a specific nature of the fixed plant which may not be possible at this stage.</p> <p>The assessment also reports a 'design rating level' which is 5 dB below the background noise level. It is not clear whether this outcome has been agreed with the Environmental Health Team or not. Based on our experience of similar projects, and the proximity the nearest sensitive receptors, it is recommended that plant noise, inclusive of all penalties under BS4142:2014 does not exceed the background noise level during both day and night-time periods.</p> <p>Given the uncertainty in design, it is recommended that should consent be given that a full 'outcome-based' BS4142:2014 assessment be undertaken with respect to all fixed plant comprising the development. The outcomes that must be secured should be agreed with the Local Authority and the requirement for the assessment be secured through a suitably worded planning condition. Such an approach would ensure that any mitigation measures such as those outlined at the end of Section 7.1 be considered with the relevant detail to hand.</p>	
Section 7.2 Road Traffic Noise Assessment	<p>The road traffic noise assessment considers changes in road traffic noise levels with and without development traffic in future development years. The changes are presented in terms of calculated road traffic noise emissions. The changes are generally less than 1 dB which is not considered significant. For some roads, the long-term impact is greater than 1 dB. For these roads, it is recommended that the changes are presented against the absolute level of noise at key receptors along their route. Planning practice guidance is clear that a small change in noise may be significant if a receptor is already exposed to high levels of noise. This may be the case if any dwellings are located within close proximity to such roads.</p> <p>The assessment does not equate the impacts to significance or government policy.</p>	Noted the scale of road changes is commensurate with the scale of changes to the surrounding road network.

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Section 8 Aircraft Noise Assessment	<p>The assessment considers a number of scenarios originating from 2003 which is recognised at the year where peak aircraft movements occurred.</p> <p>The assessment describes that the current proposals would lead to a capacity which is nearly 60% less than what would have been consented in 2008 (150,000 ATMs).</p> <p>A clarification is raised as to whether this capacity is fixed by means of the ground infrastructure comprising the development or through restrictions that are being brought forward through the application?</p> <p>Details of the modelled movements are provided in Appendix E however this simply describes the aircraft types that have been modelled rather than the associated number of movements. This information should be provided within the assessment to allow review. Likewise, no consideration is given the number of aircraft operating during day and night-time periods in each of the scenarios.</p> <p>Appendix E shows that only fixed-wing aircraft have been considered in the assessment. Historic records, such as those outlined in the main ES show that helicopter movements have formed part of the airfields activity. Clarification is raised as to whether helicopter movements are part of the proposals and if so, why these were not considered in the modelling.</p> <p>Training activity is a key component of the airpark and the figures presented in Section 8 appear to show the modelling of a training flight circuit to the south-east of the airfield. In the 2027 scenario (Figure 8.7), training flights do not appear to influence the contours.</p>	<p>The helicopter operations are not expected to change and so no assessment was required. The proposal is for a business jet centre.</p> <p>The training flights are only included for completeness and as there are not expected to be any changes to these as part of the proposals, so they do not need assessment.</p> <p>The movements reflect the analysis done in the earlier parts of the ES and so were not replicated in this section.</p> <p>See note above.</p> <p>The training flights have been incorporated into the modelling and for some scenarios do not significantly contribute to the contours.</p>
Section 9 Mitigation	<p>Mitigation measures outlined for construction noise and vibration and operational plant noise provided in Section 9.1 and Section 9.2 are considered appropriate. For Section 9.2, plant noise, mitigation measures should include ensuring assessment outcomes adhere to local policies through the measures described.</p> <p>Section 9.3 addresses aircraft noise mitigation. This section places reliance on the use of the ICAO Balanced Approach which is appropriate. Through this section a commitment is made to the development of a Noise Action Plan (NAP). It is considered that the development of NAP would be helpful however</p>	<p>Noted that the mitigation measures are appropriate.</p> <p>The Noise Management Plan will address these as stated above.</p>



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	<p>would not address or allay concerns that the adverse impacts forecast can be managed prior to a decision being made with regards to the Airpark. Section 9.3 correctly identifies that operating restrictions should be considered a last resort however the ES stops short of demonstrating how any mitigation would be provided as part of these proposals. As no mitigation is detailed for the proposals, no demonstration is made that any embedded mitigation helps achieve Government noise policy aims i.e.</p> <ul style="list-style-type: none"> <li>• avoid significant adverse impacts on health and quality of life;</li> <li>• mitigate and minimise adverse impacts on health and quality of life; and</li> <li>• where possible, contribute to the improvement of health and quality of life.</li> </ul> <p>The applicant is pointed to EU Regulation 598, and notably Annex 1 and Annex 2 of this Regulation, which sets out a noise assessment process that enables 'noise-related operating restrictions' to be placed in the context of all other measures that can help reduce aircraft noise. The Regulation, which applies to the UK, should be used as a guide to the applicant with respect to demonstrating that the impact of the proposals can be mitigated as is practicable and as is cost-effective for the applicant to do so. From this point, operating restrictions may be considered, as is indicated within Section 9.3.</p>	
Section 10 Conclusions	<p>As a general point, the significance of the proposals as described in Table 10.1 cannot be justified given the information provided in the preceding sections. As an example, the significance of aircraft noise is considered 'negligible' due to the commitment to produce a Noise Action Plan (NAP) which is non-descript as part of the proposals. The Noise Action Plan (NAP), as summarised in Section 9.3, would not provide any security that the impacts outlined in the ES and indeed any mitigation be secured at the point a decision is made in planning. Furthermore, the significance is justified against historic noise. This approach is not compatible with EIA. Whilst this allows for context, the approach required by the EIA Regulation is to consider the effect of the development. The significance of which is a forecast change or impact with and without the development. This is the principle of assessment for EIA and,</p>	<p>It is compatible with emerging policy. The Noise Management Plan is being conditioned. This does secure the mitigation and control of noise at the airfield.</p> <p>See earlier notes about the applicability of CAP 1616 to this application.</p>



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	also the principle of assessment under CAA aviation noise assessment guidance (CAP1616).	