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#### SUMMARY KEYWORDS

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#### 80:00

Okay, everyone if we could get started again, please.

#### 00:15

Thank you. Welcome back, everyone. This hearing is now resumed it is 335. Before I hand back to Dr. Hunt, when we were doing the introductions, I mentioned Mr. Andrew Mills Baker. However, we'd already received an apology to say that he wouldn't be able to attend today. So apologies for that. Okay, and it was Dr. Hunt.

#### 00:38

Miss Holmes, if we can now move on to Item five aviation noise. And I'm pleased to note that we have the Civil Aviation Authority with us today.

### 00:48

In September 2021, the functions of the Independent Commission on Civil Aviation noise or ICANN, which is often important taken on by the CAA,

### 00:59

although the detail of this handover was to be confirmed, I'm sorry to put the CA on the spot. But I was wondering if the EU would be able to be positioned today to explain whether this process is now being completed? And what if any functions performed by ICANN are now being carried out by the CA?

### 01:27

CERT grant for the CA.

### 01:30

I'm just taking instructions on that I may have to bring in Mr. French, although it looks likely that we may need to come back in more detailed note

#### 01:41

on that, if that's okay. But can I ask Mr. French to come in? If there's a sound bite that might assist in the meantime? Thank you.

No, I'm afraid not. We're gonna have to come back to you on that. I think

### 01:58

what would be helpful for my perspective is just an explanation now of effectively, what activities from my account have been carried out by the Civil Aviation Authority, and effectively how that function now now operates?

### 02:13

Yes, of course, we will take that away. Thank you.

### 02:21

And the examining authority requested that the applicant provide a brief explanation of the aviation environmental design tool or ADT noise model, and the noise model validation process, including commentary on its ability to assess cumulative noise. So if I can now hand over to the applicant to pick up that point, Rebecca clutton for the applicant, that's going to be Dr. Sharp. So there is a point that I want to come back on at one point just about the Crawley Green Road and stone lane road, but perhaps I can only do that now. We'll come back to it at a OB if that will be convenient for you.

### 02:56

Let's pick it up. Now. If it's a brief point, yes, it is a brief point in relation to call the green road that is in scope for noise, the insulation, noise insulation in the properties and that will there that's addressed in the compensation document that we were exploring the other day and secured by section 106. That's rep 2005. As the compensation policy document, as we discussed, yes. That we secure by section 106. In relation to Stoney lane that is not part of the installation proposals. That's not that's obviously the mitigation proposed there was in respect of parking controls, etc. And we're going to take a look at how that can be secured more clearly. Elsewhere in the application. Also, we'll we'll come back on stony lane, we won't come back and fully green again, because that's already addressed. Okay, that's very helpful. Thank you.

### 03:51

And open our stop shop for your previous question. Thanks.

### 03:55

Dr. Sharpe, are up for the applicant.

### 04:00

So ADT, or the aviation environmental design tool is an aircraft noise modeling software package is produced by the United States Federal Aviation Authority, and it replaces the PPE its predecessor known as the integrated noise model, as of about 2015.

It is the only aircraft noise modeling software that is recognized by the Civil Aviation Authority as a recognized and validated noise model. Other than their proprietary and con noise model, which is only available to the Civil Aviation Authority and not to external consultants.

### 04:39

The model can generate a number of noise metrics, including noise contours, which have been heavily used and referenced in the noise of assessment in chapter 16 of the environmental statement, rep See 1003 And those noise contours represent equal areas of noise exposure over the

### 05:00

ground in the same way that on tours of equal height on a map represent aid.

### 05:06

In terms of the inputs to the model, the model takes into account over a specified time period the number of aircraft movements, the types of aircraft that fly also known as the fleet mix, so the proportion of different types of aircraft.

### 05:25

It also takes into account their noise level and also the way that the aircraft fly both in terms of lateral position on the ground so the flight path or flight track, as well as the vertical profile of an aircraft on arrival or takeoff in terms of the sort of angle of flight and then height above ground and so on.

### 05:47

It also takes into account the local ground conditions as well, in terms of height of the ground in terms of further aircraft noise propagation.

### 05:58

In terms of validation, we've done undertaken an extensive noise model validation exercise following guidance from the Civil Aviation Authority in their document titled policy on minimum standards for noise modeling, which has a reference, a Civil Aviation Authority reference of cap 2091.

### 06:19

And the validation that we've undertaken exceeds the requirements for validation within that document for an airport with the population within noise contours for Luton, we've gone a step above in terms of that requirement.

### 06:35

The validation itself involves adjusting the noise levels of individual aircraft types, based on noise measurements taken by the airport operators, fixed and permanent noise monitoring terminals. And it also involves adjusting the profile, both in terms of again, the vertical profile of the aircraft and their track along the ground, based on radar track data, specific to Luton Airport, and the way that the aircraft fly into and out of the airport.

So full details of the validation are presented in Section six of appendix 16.1 of the environmental statement, document reference as 096. And we've had a number of technical sessions with the hosts authorities and their noise consultant to scrutinize that that model and its validation. And as a result of that exercise, it has been agreed by all the host authorities in their statements of common ground that the model methodology and its validation is appropriate.

### 07:45

So conscious of time, and you also talked about cumulative effects. So there's also an other agenda item, I believe for noise modeling validation. So I may leave it there and then move on to cumulative effects unless you have particular questions.

### 08:00

Sorry, we'll come back to cumulative effects. Thank you. That's a useful introduction.

### 08:07

In terms of the modeling, many, many of the representations have been made to the effect that the 2019 actuals baseline used to inform the modeling is inappropriate since the airport was in breach of its consented noise conditions at that time. Can the outcomes explain why the use of a 2019 actuals baseline would not inflate baseline noise levels, reduce the absolute noise change, sorry, reduced the absolute change in noise levels in future scenarios compared against the baseline and therefore reduce the overall significance of effects?

### 08:42

On sharp for the applicant? I think there's perhaps two points here. One is how the 2019 has influenced

### 08:51

the validation of the model. And the other is then how we've used the 2019 baseline in the assessment of significant effects, which I noticed is another agenda item. So I'll just deal directly with the point about the validation first and then perhaps we can either cover that point now or under the other agenda item.

### 09:10

So in terms of how it affects the validation, because the validation is based on individual measurements of aircraft, noise levels, and the way they fly so measurements of individual aircraft and their radar track data, it is not influenced by the overall noise exposure produced by numbers of aircraft over a time period, which would generate an la que contour, which in 2019, we were aware is was in breach of the noise condition limits. So the simple answer is that that breach of those noise limits does not affect the noise model validation which is based on measurements of each individual aircraft rather than the combined noise exposure of those aircraft.

### 10:04

Sorry, before I go on to ask further questions, does anyone want to come in at this point? Mr. Lamb on? Thank you, sir.

I think the common sort of practice that is certainly is used at the airport at the moment is that the noise model is validated every year based on your fact, the noise measurements from the year before. And certainly in respect of one of the aircraft types, the a three to one, Neo, the, it's taken a while for that to settle in, if you like.

### 10:39

It's already not performing according to its certified value versus the a three to one CEO. And it turns out that the benefit of the Neo versus the CEO in more recent measurements is different from the benefit in the validation that you've used. And I've suggested that

### 11:03

a revalidation might usefully be done based on 2022 first half 2023 data, because that is the most current data. And the airport operators published information appears to show reasonably consistent but different

### 11:24

benefit of the Neo versus the CEO. And I think this also comes down to the question in the longer run of

### 11:33

whether the model would be revalidated every five years as I believe is being proposed, or the customer practice would continue to be followed. And it would be validated again every year. And there's a benefit in doing that, because it's not just the way the aircraft have flown, but the sharing of the aircraft type between different airlines can affect the way that they generate noise because of the different flight management system programming in them. And also, of course, the spread of the aircraft type between different routes may change over time. So we think there is merit in bringing some of that up to date. Thank you, sir.

### 12:14

Thank you, can I ask the applicant to respond to those comments?

### 12:20 I'm sharp for the applicant.

### 12:23

The

### 12:25

current situation with a 321 Neo is understood and acknowledged in in the noise chapter. And as a result, we have based the noise levels from the 321 Neo in the Phase One assessments based on on measurements.

### 12:41

We are committing within the aircraft noise monitoring plan to update that validation every five years. That's particularly with context of adjusting parameters within the noise model like noise levels, rather than anything to do with, for example, flight tracks and flight paths as Mr. lamborn has mentioned, if there were to be any changes like that, which would fundamentally alter the noise footprint, and that certainly would be done on an annual basis. I think the the point of makers, the inputs to the noise model every year are based on what is flown the aircraft fleet mix that has flown the input parameters based on

### 13:21

the timetable and what is flown. The validation is the specific then going into the model and adjusting the underlying data for that aircraft type. And it's that it's done every five years, whereas every year the model will be updated to represent the fleet mix and the proportion of traffic and when they were flown.

### 13:44

In terms of that annual updates.

### 13:48

Would there be any particular scrutiny of the annual update?

### 13:57

My colleague Mr data respond to this.

### 14:01

So that's secured through the annual monitoring report that would be published by the airport operator following on from the requirements set out in the green controlled growth framework. There is a draft aircraft noise monitoring plan that is included as Appendix C to the green controlled growth framework, which is a pp 221.

### 14:24

Sorry, and so that annual review processes security in there or just the five year review process.

### 14:30

I'm Michael and Dr. Sharpe just to

### 14:34

do you ask your question again? Sorry, sir. So the question was, is an annual review prep processes referenced by Mr. lamborn is currently happening. Is that secured in the green controlled growth framework? Or is it simply the five year

### 14:51

review which was my understanding, the annual update to the noise model and the checking of the compliance of those of that output of that noise?

### 15:00

model in terms of the contours, and the GCG limits is secured within that aircraft noise monitoring plan.

And GC on what frequency annually is and yet, yeah, that's right. So if I may just come back I would I was asking for his annual validation against noise measurement. And what I believe I heard was annual changes if the flight tracks alters. I'm not talking about flight tracks altering, I'm talking about annual validation against noise measurement. And I don't think I heard that being agreed to.

#### 15:37

Callum Sharpe for the applicant, the annual validation of a noise model, using noise measurement data is not currently secured.

#### 15:49

I would just make one more point. Sorry, I think I did. I did mention flight paths. But actually, I think I think the important point in terms of that annual update of the noise model is actually more of a fleet mix, and how that changes over time. That is updated annually, and that aspect of it is secured.

#### 16:07

Thank you. I mean, would there be any merits in an annual validation against the measured background noise levels?

#### 16:17

Well, the ambient noise levels,

#### 16:20

Callum sharp for the applicant? I think we can we can certainly take that away. Our experience is that the noise level from individual aircraft types is unlikely to change significantly year upon year. So we don't think that would be

#### 16:35

currently necessary, we think five years would be appropriate.

#### 16:45

To the council's wish to come in at this point,

#### 16:49

harassed for the host authorities, I think we think that that would be helpful.

### 16:55

And from local authority perspective, again, the 2019 baseline, is that

#### 17:03

an acceptable position from your perspective

and feel harassed for the highest authorities, I think our position on the 2019 baseline the actual baseline is that it's not an appropriate baseline from which to measure how noise will reduce in in future years. And I think, in particular,

### 17:22

based on that marker in the daytime hear noises actually, is proposed to reduce marginally below that 2019 actual and the 2019 consented baseline, which technically represents a reduction in noise, but doesn't meet the test of equal sharing between communities. And there are as set out in the noise envelope design group consultation. And then in respect of nighttime noise, the noise envelope limits are actually above the 2019 consented baseline and so there is no deduction.

### 17:53

The applicant has recently that that is a reduction compared to the 2019 actual but we would say that that's an unreasonable comparison, because the 2019 actual noise levels being in breach of conditions shouldn't have occurred.

### 18:08

So essentially, we're

### 18:10

made representations in this and ongoing meetings regarding noise, but haven't had a sufficient justification from outcomes.

### 18:20

behave with the mitre respond.

### 18:26

I'm sure for the Applicant I'm happy to respond in Europe. This is an agenda item. Should I just go into the sort of let's make it up now. Yeah.

### 18:40

Finally notes, excuse me.

### 18:46

So

### 18:48

the position and the 2019 baseline of course, we've set out in our in our various documentation.

### 18:54

Just to be it's quite a complex topic. So just to be clear, up front, the use of the 2019 baseline, whether it be actuals, or consented does not affect the identification of significant effects in terms of environmental impact assessment likely significant effects due to noise change, and it does not affect the identification of significant effects on health and quality of life.

The way that we assess those two types of effects, we do two tests effectively. The first is to identify what we call adverse likely significant effects in the noise chapter due to noise change in environmental impact assessment terms and the other is significant effects on health and quality of life in noise policy terms, okay, the noise policy statement for England due to significant noise exposure.

### 19:46

So for the first assessment that adverse likely significant effects, we identify those based on noise change as a result of the proposed development in a given year. So for example, in assessment phase one, we compare the noise with the group

### 20:00

Post Development in 2027, we refer to as the DO SOMETHING scenario in the noise chapter with the do minimum scenario in the noise chapter, which is the situation without the proposed development, again in 2027. So that comparison is purely in 2027. With and without the proposed development, we determine the noise level change associated with that and use that

### 20:23

to compare to our assessment criteria to determine likely significant effects. So, the 2019 baseline does not does not factor into that assessment.

### 20:33

The other test is the test of significant effects on health and quality of life, in line with the first aim of the noise policy statement for England to avoid significant effects on health and quality of life. And those significant effects are identified when the noise exposure with the proposed development exceeds the significant observed adverse effect level or so.

### 20:56

And again, this is based on

### 21:00

noise levels with the proposed development and not compared back to 2019.

### 21:07

There's a point sorry, I forgot to mention as well on the adverse likely significant effect assessment that the do minimum scenario in that comparison in a given year is is compliant with the airport's consented long term limits. So that does take into account

### 21:23

those those consented limits for 2027 2039 and 2043, when they would apply

the criteria for those for those assessments in terms of the noise change, and then thresholds of assessment, the soul have all been agreed with the host authorities. And that's recorded in the statement of common ground.

### 21:46

So where the 2019 baseline does come into play is we do make comparisons within the noise chapter back to the 2019 baseline. And we do that to provide content, text and information on how the noise environment would change with the proposed development. And we compare that in the first instance, back to the 2019 actuals baseline, because that is what was experienced by communities. That's what was flown at the airport. And therefore we think it is relevant in the context of as the EAA regulations tell us, we consider the baseline as a description of the relevant aspects of the state of the environment. So we do consider it relevant to compare it back to the 2019 actuals. For that comparison.

### 22:37

However, it is recognized, of course, that

#### 22:41

in 2019, the noise consort limits were exceeded. So we have also done that comparison. Again, we've we've repeated it, using the 2019 consented baseline as well to provide that information and show how that comparison would be different using that that sort of theoretical baseline representing a situation in which the airport was operating within its consented limits in 2019.

#### 23:07

So as I mentioned, previously, that comparison doesn't doesn't affect the identification of the significant effects. And indeed, the conclusions of that repeated comparison, which is presented in Appendix 16.1 of the environmental statement as over 96.

### 23:26

Results in the same conclusion, have no residual significant adverse effects.

### 23:33

The nuance to this, and we do mention this in the noise chapter, is that whilst the number and location and content of the significant effects on health and quality of life that are identified in the noise chapter, are the same, regardless of whether the 2019 actuals or consented, baseline is used. There is a small proportion of those identified effects, and it's between five and 18%. And it's restricted to the nighttime only in phase one and phase two B. But for a small proportion of those significant effects, there's those can be considered new significant effects, because they don't exist or that that exposure, but the soul does not exist in the 2019 consented baseline, whereas it does in the 2019 actuals. But it's the same same significant effects the same population that is identified as experiencing those effects. And whether they are considered new or not, the mitigation is the same and that is to provide the forecast and noise installation for exposure above the daytime and nighttime significant observed adverse effect level.

### So it doesn't

### 24:45

it doesn't affect those those assessments. It doesn't affect the identification of mitigation.

### 24:53

And it doesn't affect, for example, that the setting of the noise envelope limits

### 24:59

but

### 25:00

But hopefully we've been sort of transparent. And we've presented both comparisons because we're aware of the concern related to the 2019 actuals baseline, which is why we're

### 25:12

so important to present both assessments. But both comparisons. So

### 25:18

thank you. Just in respect of the consensus baseline,

### 25:24

the consensus baseline supplements more quieter new generation aircraft, so whilst the noise envelope might be compliant with relevant noise contours, my rice is saying that any comparisons using supplementary metrics like the above consoles would be less likely to show absolute changes, or or show less absolute change in numbers compared to that baseline.

### 25:50

That could be the case of course, we don't use those comparisons, again, as

### 25:57

any means of identifying significant effects in our in our methodology, which which has been agreed with the host authorities.

### 26:05

I noticed this is a point that has been raised in written representations which we've responded to I think, perhaps it's part of the difficulty with identifying a theoretical baseline which doesn't exist, there are multiple ways that you could achieve that theoretical baseline whether that be adjusting the numbers of move movements or the fleet mix. But the intention because our primary comparison is using the LI Q contours was to make sure that the FAQ contour was compliant with the 2019 limit for that comparison, which is what we've what we've done.

### 26:38

Okay, thank you.

Paragraph 5.58. At the airports National Policy Statement requires that noise mitigation measures should ensure the impacts of aircraft noise is limited and where possible reduced compared to a 2013 baseline. Now, we'll be at this is related to Heathrow in the airport's condition, there is a principle impossible policy than earlier baseline may be an appropriate basis for comparison.

### 27:03

Can you provide any comments on that or observations

### 27:09

can show up for the applicant? Indeed, and that's part of the reason why we have compared back to that historic baseline. That, you know, as we've stated before, the airport's national policy statement doesn't have effect for this proposed development, but we've had due regard to its principles, in terms of how we may want to interpret policy. So that's part of the reason why we've done that comparison as well. Okay, thank you. Obviously, it remains important and relevant from from our perspective.

### 27:37

Thank you.

# 27:40

Okay.

### 27:42

Were there any other comments before I move on?

### 27:53

You touched on Fleet Modernization in your comments minutes ago. Fleet Modernization remains one of the key assumptions in the noise assessment, reducing noise levels in future, and references made to analysis of airline or aircraft orders to inform the future fleet mix.

### 28:11

I'm not aware that any actual evidence has been submitted as part of the application regarding

### 28:18

what the future orders are.

### 28:21

on which you base that assumption. Are you able to supply this evidence or signpost where we might be able to find it?

### 28:29

So Rebecca climb for the applicant, Mr. Conley, were to deal with this question for you.

Thank you Rich economy for the applicant. Yes, we can actually provide some information to you. So it will come from different sources. There's publicly or not publicly, but available data on line orders through data sources that we use and we can provide you with copies of that will also be likely to provide you with some copies of

#### 28:55

annual reports from the airlines because they're also very good at outlining that fleet replacement. So for example, with air which is obviously a big operator here, their annual reports illustrate how they're going to be almost 100% of the new generation aircraft by 2027. So we'll give you a combination of those pieces of information.

#### 29:15

And be helpful thank you.

#### 29:18

And

#### 29:30

as one to one comparison have consented and proposed operation noise controls, references other noise mitigation mechanisms to incentivize the adoption of quieter aircraft.

#### 29:41

Can the outcomes explain what these other mitigation measures are and how they will ensure use of best in class aircraft reduce noise impacts that source?

#### 29:57

Lm sharp for the applicant could you tell me specifically

#### 30:00

Which bit of as one to one you're referring to please is referencing page 17?

#### 30:25

Try for the Applicant I think is this in relation to the noise limit review process. This the reference, we're talking about this.

#### 30:34

I don't have the document open in front of me, I'm afraid. It was really the principal that there's a commitment to incentivize the adoption of quieter aircraft. And what I'm trying to understand is

#### 30:45

what measures the Applicant will be putting in place to ensure that that happens.

So this is this is a commitment to review the noise envelope limits in the future, should there be a new? Well, this is where next generation aircraft come into play. So it might just be worth maybe explaining the assumptions that we've made around you and next generation aircraft to provide some clarity on that point. Yep. So, Rebecca, and for the applicants, sorry, I think there might be do you mean page 17 internal pagination, or page 17, PDF pagination circles there, I think you might be talking slightly across purposes.

### 31:36

So this perhaps sorry, this isn't about the departure of noise violation limits?

### 31:43

In which case I can I can respond on on that point.

### 31:59

See, yeah,

### 32:01

yeah. So I think I think this is the heading is under departure noise violation limits, but sorry, sorry, the reference was the noise violation limits in terms of where,

### 32:13

where in the table this comment comes from, but it's the wider principle of what is the applicant able to do to incentivize the use of the quieter aircraft?

### 32:22

Understood, thank you. Apologies for that for that misunderstanding. So this really is describing the overall purpose of the green control growth framework.

### 32:32

And the comparison of consensus and operational controls sets out how there are a number of controls in the current consent, which are quite specific to various control app, sort of

### 32:47

very specific controls, whereas the green controlled growth framework is about securing the outcome without necessarily defining at this stage what those controls should be. So that bit of text,

### 33:01

if it's the one that we've we're hopefully both looking at is about this allows the airport operator flexibility to review and adjust the limits as necessary.

### 33:10

In line with future aircraft technology, noise improvements and other noise mitigation mechanisms to incentivize the adoption of quieter aircraft. So it's about allowing the flexibility of various different controls that could be employed either now or in the future, given that this is a long term project,

to draw down on on various different mechanisms to incentivize quieter adoption of aircraft. So examples may be for example, differential landing charges, or controls within the slot management process. But we haven't secured those particular controls what we have secured is the outcome, and then allowed flexibility for different controls to be used to achieve that outcome.

### 34:01

Thank you. Yes, I suppose the the issue from my perspective is there are a lot of commitments to possible things that might be achieved, but there's very little actual tangible evidence of what will be done. So it's

### 34:16

trying to understand what certainty can be applied to the use of those quieter aircraft in future and what actions will actually happen. So I appreciate that you're working on outcome basis and appreciate there's a long timeframe to take into account so things may change over time. But at the moment, it's there's there's lack of actual committed actions on trying to understand what the likely committed actions are.

### 34:41

As Understood, thank you cam sharp for the applicant.

### 34:45

I think certainly what you can have, or what the examining authority can have confidence in is that outcome will happen and that will be secured.

### 34:54

We have talked about perhaps providing in discussions with the host authorities, maybe just one

### 35:00

We wouldn't secure any particular mitigations at this stage, because what we're securing is the environmental outcome, we could provide some examples of the types of mitigation and approaches that could be used based on current understanding at this stage

### 35:15

to meet those noise outcomes, but certainly what we want to make clear is that it is the environmental outcomes. That is what is secured.

#### 35:25

But if it would, if it would help, we'd be happy to provide some of those examples of mitigation measures that could be used to achieve those outcomes. I think that would be helpful. Yes, if you could, please.

Which deadline would we be looking at?

### 35:42

The moment we're looking at deadline, three, in line with the updates that we've already committed to make to the green controlled growth documents. Thank you. And Mr. economy, I think, asked the same question view in terms of the information from the airline operators in terms of future fleet mix. Yeah, so that's quite straightforward. So we'll get that to your deadline three as well. Okay, great. Thank you. So Rebecca, and for the applicant, just to emphasize these obviously, will be examples of measures that might be taken. I think there's just a reference that being examples of committed measures, the whole point is that the measures themselves will not be committed, that is the very purpose of having an outcomes focused environmental proposal. I appreciate the point that has been made.

### 36:28

Can I just ask the local authorities whether that provide sufficient levels of certainty from their perspective in terms of future controls on noise?

### 36:39

And Holcomb, for the authorities, at the after the release of the latest noise envelope and worked examples Update, I'm sorry, I don't have the pins reference. But we requested from the applicant

#### 36:55

mitigation toolbox was how it was framed. I believe there's equivalent in surface access, but that sets out what mitigation options might be available. I think this is an incredibly important aspect of green control growth, given how quickly the airport reached its limit last time relative to when they were meant to reach certain thresholds. It's important to know that their mitigation is available instantly, rather than what might happen down the line.

### 37:31

Thank you. We did have some conversations yesterday about speed of change, conversation relating source allocation. So I believe we're waiting for an update from the applicants on that point at the moment. The particular concern for those who weren't in attendance at yesterday's hearings was particularly the ability of the Applicant to rapidly increase slots on obtaining a DCO consent, and those then not being able to be revoked at a later stage, meaning that if a threshold was breached, it might not be possible to

### 38:03

come back from that.

### 38:08

Bend algorithm for the postal authorities. Yes. The understanding of what caused the breach originally was that exact example of unreleased slots being released too fast, rather than the examples given the nd worked example provided by the applicant.

Thank you, Mr. Landlord. Thank you. So Andrew lemma for ladder can. I think our key problem with this approach is that the outcome is measured in terms of just one parameter which is the noise contour area. And this is why the noise envelope design group recommended that there should be more than one such parameter. Can I just interrupt you Mr. lamborn, we will come back to this point. But it's later on in the agenda under green controlled growth and mitigation. So okay, unless there's a specific point around, for example, and modeling fleet next. I think, can we park that for the moment? Sure.

### 39:09

Thank you.

### 39:14

I'm sure the applicant if I may. I just wanted to make the point that the mitigation toolbox that Mr. Holcomb referring to is the information that we were provided deadline three, so I agree that those are the discussions were had and we'll provide that information.

### 39:32

Okay, that's helpful. Thank you. I think that removes one of my later questions.

### 39:41

In terms of sorry, just one final point around the future fleet. Next we have the airline operators with their Ford proposals. But there is what level of certainty can be placed on the future fleet mix sort of actually materializing.

### 40:01

pretty commonly for the applicant, so we have a high level of certainty around airlines replacing aircraft over time. And that's actively been seen over the years.

### 40:12

It's an economic imperative for the airlines to change their fleets because as aircraft get older, they burn more fuel relative to competitor airlines, and aircraft more expensive to maintain. So the low fares carriers, who particularly dominated Luton, and who are likely to be the kind of airlines that continue to operate here, they tend to actually replace their aircraft earlier than you might see with some of the more traditional Airlines for exactly those economic reasons, it becomes too expensive for them to be competitive if they don't keep updating their fleets. So what you tend to see is a cycle of aircraft manufacturers developing new aircraft over periods of sort around 15 to 20 years or so when new aircraft come out. And those airlines tend to

### 40:56

be among the first to order those. And you'll see that when we provide the information that we've already discussed, because you'll see the high number of aircraft on order by Lopez carriers

in terms of the next generation of aircraft, which are those that we expect to be introduced in the mid 2030s onwards in which form part of the sensitivity, or the alternative fleet mix that's outlined in the need case, it is one to five.

### 41:23

We've taken our guidance there some extent from the club transport and the jet zero documentation, because they have spent a lot of time looking at that as an issue as well around at what rate do airlines replace aircraft at what rate to new aircraft come in. So again, the jet zero documentation outlines the point at which new aircraft are expected to be introduced. And for now, we have followed the guidance in there, or at least the scenarios outlined in there as well for that next generation of aircraft.

### 41:56

Sorry, in terms of the next generation aircraft, there's been various representations around

### 42:02

the level of noise that might be produced. There's a an underlying assumption in the ies that it might get quieter, although that hasn't been relied on for the assessment of effects. But obviously, the civil aviation has published its own thoughts on aviation noise and suggesting that next generation aircraft may actually be noisier in some circumstances rather than quieter. Can you comment on that? So

### 42:28

LM sharp for the applicant. Indeed, as you note, in terms of our environmental assessment, we've assumed no noise benefit from next generation aircraft in our core case,

### 42:41

in the situation in which noise from next generation aircraft actually increases, I think it's, it would have obviously have to increase on the whole across the fleet for it to have a significant increase in the overall noise contour footprint. But regardless, again, we returned back to green controlled growth and the outcome that is secured through that. So if aircraft next generation aircraft were indeed, noisier than the current, or the new generation that they'd replace, the airport would still need to operate within the green control growth noise envelope limits. So there mitigation or indeed,

### 43:25

limitations would would need to be applied in order to offset that increase.

### 43:35

And thank you.

### 43:39

And Mr. Landman, so just a small point, Andrew lemma from ladder can, Richard describe the cycle of new aircraft being developed and brought out in order by airlines, perhaps overlooking the cycle that follows on two or three years later when those aircraft are recalls on safety grounds. And I'm just thinking of the Boeing 737 Max. And now, the Pratt and Whitney power plants on the Neo aircraft which have developed cracks in the veins. So I think the pace of change is not necessarily conducive to

relying on the new technologies in the way that it was in the past simply because those technologies are pushing the boundaries of what is possible, and have thrown up issues such as the two I mentioned.

### 44:28

Thank you, and with the amplicon like to respond on that point.

### 44:36

Rich economy for the applicant. So there are two points I would make. The first is that, that next generation of aircraft anyway, and therefore those aircraft that have got to go through that introduction of service, there are a small proportion of the fleet anyway, by the time we get, you know, in that alternative scenario, by the time we get to the end assessment period of 2043, so we're not huge

### 45:00

be reliant on them. And I think the other point is that that just highlights the benefit that's been drawn out in terms of the approach taken by the noise team in using the current and the new generation aircraft as the core assessment at this time to remove that uncertainty.

### 45:17

My comment related to new generation not next generation.

### 45:25

Yeah, okay. Rich economy for the applicant. That's absolutely fine. But

### 45:32

those aircraft are coming in at quite a pace. And I think that what you tend to see is were some of those aircraft and I refer to the the engine problems that are occurring at the moment some of the Neo aircraft, what you tend to find is that the new aircraft that gets delivered have already got the fault corrected in them. So early aircraft that had been delivered tend to need to be taken out of service and corrected, but the aircraft that are coming in tend to have that correction already applied. And the examples of that would be Boeing, with regard to some of the

### 46:04

skin issues around it and the materials issues around their Boeing 787, for example, and when you look at Embraer Embraer, we're fairly confident that then you

### 46:14

Embraer, 195 and 192 aircraft that are being introduced to overcome those engine problems. So you're right, some of the fleet may well be vulnerable at the moment, some of the fleet may be vulnerable. And they don't all get taken out of service. Typically, at the same time, they will be taken out of service in batches quite often through pair of fault. But again, we're talking about something that's happening here and now in this moment in time. So within the next two to three years, you might expect that problem to be resolved as the airport's building back towards 18 million and then potentially on towards 21 and a half on 23.

Thank you.

### 46:50

And I'd like to turn to the process of noise model validation.

### 46:56

Section six of ES appendix 16.1 explains that 50th percentile sound exposure level data is used to inform the aircraft noise model

### 47:06

50th percentile seems relatively low. Is this consistent with any ca or Federal Aviation Authority modeling standard? And can you explain why a higher figures such as 75th or 95th percentile would not be more representative of levels experienced?

### 47:30

Everyone's in for the applicant. There's there's

### 47:35

no specification in the CAA guidance on on noise modeling about what to use in in terms of your data analysis. So we thought as we are measuring, modeling a typical aircraft movement, we felt it was appropriate to take the 50th percentile noise data which is representative of the typical noise level of an aircraft movement. And also, it allowed us to present a statistical spread of data from the tense to 90th percentile when we're demonstrating how accurate our validation was in comparison to measured levels.

### 48:22

In my experience in previous modeling exercises 95th percentile is a more common usage, not necessarily noise modeling, but why the 50th percentile sort of rather than a higher level.

### 48:37

Given that's the sort of more common plenty

### 48:41

of rooms for the applicant, and I would say the 50th percentile is the most common value, you tend to get a Gaussian spread of data of of aircraft data with

### 48:56

there have been a wider dispersion at the 10th and 90th percentiles and

### 49:02

a strong correlation of data at the 50th percentile and and that provides you with the most typical noise level for an aircraft movement came Thank you.

Section 10 of ES annex 16.1 explains the corrections that have been applied to predictions of approach and departure SEL for different aircraft types. Corrections are applied across all included monitoring locations, and for example, table 6.17 shows good correlations at monitoring locations close to the airport

### 49:37

for the B 737 800, but all correlation at distance.

### 49:43

But one decibel correction is applied across all of the monitoring locations. And can the applicant explain whether any analysis has been done to check whether blanket corrections applied across all prediction locations and monitoring stations are appropriate rather than to a more nuanced approach to speed

### 50:00

cific plane operations or flight paths.

#### 50:04

Eddie Robinson for the applicant,

#### 50:06

we, we only buy a blanket correction to the source data. That's, that's the industry standard method for for validating aircraft noise. Making a comparison to measure data

### 50:25

can show up to the applicant just to clarify for me, it's not possible to apply different correction at different locations because you are just correcting the source data.

#### 50:35

Just to clarify that point. Thank you for that application.

### 50:45

We've touched on noise monitoring on a number of occasions in the session earlier. And the ambient noise monitoring data report explains that noise monitoring has only been used for context for the operation noise assessment.

## 50:58

As 120

### 51:01

states that data from other monitoring locations is used to provide context. Can you explain how the noise monitoring informs context and how it's been used in this particular assessment, specifically?

Contra by this assessment, specifically the aircraft noise assessment. Yep.

### 51:20

So I think you've referenced the documents in which we've set out the information, because it is not possible to accurately characterize the baseline over such a large area for an aircraft for a source of noise such as aircraft where there are differences in weather and modal split, and so on, it's necessary to model the baseline. So as we've set out the measurement locations,

### 51:48

sorry, the noise monitoring terminal data was used to validate the baseline noise model. And it's the baseline noise model that is used in the assessment. So when we are identifying, again, as I described likely significant effects due to noise change, the baseline that we use in that noise changes is the modeled baseline. The context really is then just provided in, we have a series of

### 52:13

tables for particular community locations in the appendix in Appendix 16.1, in which we provide a suite of metrics, including the noise measurement data, to provide context for how those metrics would be experienced within a particular community location. But it isn't it is not used, those measurements are not used in the identification of likely significant effects.

#### 52:43

So

### 52:45

So So going back to the original question, so intent, how,

### 52:50

what actual use, do you use that sort of background noise monitoring data for it's just to give a general view of what the ambient noise levels are in an area?

### 53:02

Indeed, that's correct. Yeah, just to provide a general view, it doesn't factor into the actual assessment. So that's

### 53:10

I'm slightly slightly confused by this point in the sense that there's been a very extensive noise monitoring exercise done. But actually, relatively little of the noise monitoring has been used to actually inform the overall assessments and just sort of very select

### 53:27

pieces of the monitoring data. Is there any particular reason for that?

Kalama sharp for the applicant. Part of the reason is because we

#### 53:39

had, we initially thought we would need to use that measure of data a little bit more than we needed to before we had access to a lot of the noise monitoring terminal data.

### 53:49

And it was agreed, for example, with some of the host authorities to do measurements in particular locations to quantify the baseline for the context.

### 54:00

But hopefully, it's clear in the in the paper that we set out in response to the section 51. Again, sorry, if it was a secondary Do you want to rule six requests, but as the document that you referenced, in which we clarify that the baseline the ambient noise monitoring data was not used extensively in the assessment?

### 54:20

What we rely on is is the model baseline

### 54:30

and can I just ask is, is it typical for aircraft noise modeling to rely on model baseline rather than using more extensive monitoring data for comparison, capture for the applicant as far as I'm aware, that's the only way that it is done.

#### 54:51

Okay.

### 54:57

We're going to move on to

### 54:59

а

### 55:00

Outdoor noise impacts. So a number of representations have raised the issue of outdoor noise impacts, for example, on gardens. And it has to an extent been addressed and noise and vibration chapter as part of the consideration of community areas, as you just alluded to the criteria applies the assessment are the same as for human receptors.

### 55:22

And my question is, whether it's appropriate to apply a health related standard when considering loss of amenity in a garden space.

Now LM Sharpe for the applicant, as we set out in the methodology in Section 16.5, of chapter 16, the environmental statement, we do think that is appropriate because we are assessing the impacts on a community basis in terms of where people live and where they work and how they move about, which includes their exposure over over a given time period, both both indoors and outdoors. And the experience that is that is

### 56:07

that is experienced by the community in those locations.

### 56:16

Are there any relevant standards for outdoor noise and gardens?

### 56:24

There are some standards and design guidance which we have taken into account in the noise assessment.

#### 56:34

Could you explain what those aren't?

#### 56:38

So we there is the WHO community noise guidelines, which is referenced in the noise chapter.

#### 56:49

That's the particular one that we referenced.

### 56:53

Was any consideration given to the loose and planning and noise guidance criteria of 55 DB I EQ on our standard

#### 57:01

contract for the Applicant I believe that standard is derived from that document as it is the same?

### 57:10

As far as I'm aware, though, there isn't an assessment within the s against the one hour standard, is that correct?

### 57:18

Lm sharp for the applicant that is correct. And that's on the basis of the standard approach of assessing aircraft noise over a 16 hour day time period or an eight hour nighttime period. So in terms of the

### 57:32

EU community noise guidelines in forming the assessment,

it hasn't actually informed the assessment if if that standard hasn't been applied. Correct.

### 57:43

counterpart for the applicant we've had due regard to that standard. But obviously, we have to apply it within the context of the noise source that we're that we're assessing.

### 58:01

So

58:06 I just asked, is it

### 58:09

you saying it just doesn't apply in a, an aviation noise context?

### 58:14

Contract for the applicant? I mean, what I'm saying is that we followed the guidance that is specific to aviation noise assessment. So Civil Aviation Authority guidance, for example, as we've referenced in the noise, chapter, cat one, five or six, which shows that

### 58:33

the assessment of effects on people is best described by the la que 16, our daytime metric and eat our nighttime metric. And that research study that fed into that explicitly included the effects of people in their gardens and balconies as well. So again, go into that sort of community response side of things, which which takes that into account. Thank you. Does the local authority have any comment?

### 59:04

Is no no comments queue.

# 59:09

And

### 59:11

there are significant effects identified for some communities, in terms of the impact on outdoor spaces, is any form of mitigation providing the s to address loss of amenity in the outdoor space.

### 59:27

Column sharp for the applicant. In terms of the mitigation approach, we've set out the mitigation hierarchy in Appendix 16.2 of the environmental statement.

And in line with the noise policy statement aims, the first approach is to minimize noise as far as reasonably practicable. So everything that we're applying in terms of mitigation to aircraft noise, such as the noise envelope and the controls within that, of course, apply to both

### 1:00:00

indoor and outdoor noise equally, there is no specific mitigation applied for aircraft noise to outdoor spaces.

### 1:00:09

That is not particularly possible we're just reducing and then controlling the aircraft noise in general which benefits both.

### 1:00:18

And thank you

### 1:00:22

if we could move on to the non residential receptor assessment and non residential receptor assessment was submitted as part of the noise and vibration chapter.

### 1:00:33

And the assessment provides a summary of receptors by type. I have to admit, I found this aspects of the assessment particularly difficult to engage with in the absence of any detailed information regarding the actual receptors screened in the levels that are applied, and the high level nature of the conclusions.

### 1:00:51

Could the Applicant provide more detailed information to demonstrate what facilities were considered how the screening criteria were applied, and the information used to inform conclusions of significance

### 1:01:05

LM sharp for the applicant.

### 1:01:08

In the context of the environmental impact assessment, obviously, we are trying to identify likely significant effects. So we have provided information for all receptors that are likely to experience or risk of experiencing adverse likely significant effects.

### 1:01:28

Those are named in the relevant sections of the noise chapter assessment, section 16.9. And under each phase under the non residential assessment, heading

### 1:01:39

where non residential receptors do not exceed the assessment criteria or the screening criteria there, there is no further assessment made because they do not exceed the assessment criteria.

### 1:01:54

Therefore, we don't consider it appropriate or didn't consider appropriate to provide that information in the environmental statement. I would just add that there is

#### 1:02:06

information in Appendix 16.1. For each of the headings of the non residential, I think there are 11 different categories of non residential receptor. And that sets out in some detail how the assessment criteria have been derived based on relevant standards and guidance.

### 1:02:27

I appreciate that. And what I don't have in front of me at the moment is the details that sit behind that. So I have no table of data showing which receptors were considered how the screening thresholds are applied, and why they're not eligible to be considered for.

#### 1:02:47

Wire likely significant effects hasn't been assessed in relation to those receptors. So there's a appreciate that we've got the conclusions, but we haven't got the intermediate stage that tells us how you got there.

#### 1:03:00

Lm sharp for the applicant.

#### 1:03:03

Indeed, and of course, the data would simply show that the noise levels are going always change or below the assessment criteria. And that's why

#### 1:03:13

that's why they then haven't been carried into the next assessment phase. If it would assist the panel we can provide that data. But it would have no bearing obviously on the conclusions of the assessment and appreciate that the US has to relate to likely significant effects, but that background data was useful to inform our understanding of how those effects have been concluded. So yes, I would like to see that please. Okay. Thank you Ruby, we'd be happy to provide that maybe deadline for for us to collate the invocation.

#### 1:03:57

The the noise and vibration chapter states that the proposed new airport buildings were screened receptors to north from noise.

#### 1:04:07

To what extent does the assessment modeling have likely significant air and ground noise effects for each assessment phase depend on the build out sequence and the specific building dimensions and parameters? And in particular, in responding to this question, I'm keen to understand what impacts the

two large hangars on the northern boundary of the airport have on the conclusions of the noise assessment, ie, if they weren't built out what would be the impact of noise on community receptors

### 1:04:41

LM sharp for the applicant.

### 1:04:44

So you mentioned I think air air road and ground just to be clear initially the aircraft air noise assessment does not as a reasonable worst case does not take into account any screening. So it would have no effect on the air noise assessment

### 1:04:58

where the modeling does

### 1:05:00

to take into account the effects of screening is the ground noise assessment.

### 1:05:05

So we have, I wouldn't say that we rely on any building infrastructure for mitigation, it is simply part of the proposed development.

### 1:05:15

And as an assessment of the likely significant effects, we have taken the proposed development into account. So it does factor in to the noise modeling.

### 1:05:23

There is a substantial amount of building infrastructure on the airfield and the apron, and there is a relatively large distance between

### 1:05:35

the ground noise sources and the nearest residential receptors that would be offered partial screening to the north.

### 1:05:42

So I think it's whilst obviously, we can't say, here, and now, particularly about those points about the hangars, if there were to be built out slightly differently, or in a slightly different location, it's unlikely to make a substantial difference to the noise experienced that the distant residential receptors given the amount of other screening that is available on the airfield.

### 1:06:08

But I think the other point perhaps to make is that where noise impacts occur, they occur because of increases in aircraft movements and growth. And the building infrastructure that's part of the proposed development is required in order to facilitate that growth. So a situation in which there is substantial aircraft, increases in aircraft, but no hangars, for example, or other building infrastructure is unlikely to

happen. So again, we've we've undertaken that that likely worst case, sorry, likely significant effects assessment based on the proposed development and, and that phasing.

### 1:06:50

I suppose where my questions are leading is, and this goes back to a point that was discussed yesterday about phasing. And to what extent to the conclusions of significance rely on those buildings? You mentioned, there's a lot of infrastructure in the airport that would serve screen noise. But actually, those two hangars are in a space in the airport, where actually there isn't so much infrastructure in between the the airport, the taxiways, and then the residents to the north.

### 1:07:21

So having the two hangars in place effectively is creating an acoustic barrier, which is going to shield quite a lot of the noise. So if if it's not built out on the timelines identified, or for some reason, the proposals change and there is the flexibility to do that. Is the noise impacts going to be significantly worse for those receptors?

### 1:07:45

Lm sharp for the ABS Can we think the answer is no based on again the relative distance between the receptors and and the ground noise

### 1:07:57

would you be able to provide some form of model output which would show the difference in noise contours without those hangers in place versus with the hangers in place? I think it's just for face to be

### 1:08:10

I'm sure for the applicant if that would assist the panel Yes, we can we can do that. Thank you.

### 1:08:20

The noise and vibration chapter explains that combined noise effects considered qualitatively Can you explain why noise from different sources cannot reliably be combined to establish the total increase in noise from all sources

### 1:08:35

LM sharp for the applicant

### 1:08:38

it is of course possible to add decibels together.

### 1:08:43

But for different noise sources that are experienced in different

### 1:08:48

manners such as road traffic noise, which is a general continuous noise level and aircraft noise which is an intermittent noise level. There is no standard approach to

### 1:09:00

draw any conclusions from those noise levels. Once they've been added together. There's there's no evidence base within which to identify significant effects on that basis. So the standard approach has been employed for many infrastructure projects is to do it on a qualitative basis. And that way you can take into account the receptors that are likely to experience multiple noise sources and the context within which those noise sources are experienced. For example,

#### 1:09:32

road a road may be on one side of the building and an aircraft on the other therefore you're experiencing are on different sides of the same facade that cannot be taken into account if you're simply adding up the decibel levels.

#### 1:09:46

Thank you. And is there any ability within ATT to model multiple noise sources?

#### 1:09:55

Calm short for the applicant? No, there is not.

#### 1:09:58

Thank you

#### 1:10:00

And a number of reps expressed concern about being overflown by planes from multiple different airports, where an area is overflowing by traffic from multiple airports. Can you explain how this is accounted for in the models?

### 1:10:16

And to give an example, having been out on site pilots and Lawrence where you have relatively low level aircraft flying from Stansted plus flights from Luton, and the occasional flights from Heathrow and other destinations,

#### 1:10:33

LM sharp for the app okay and so, the ADC noise model similar in the way Well, so, it models the noise impact from an individual airport. So by itself it does not take into account air noise from other airports and other aircraft flying overhead. The way that that is dealt with within the environmental statement is through the cumulative effects assessment, which is presented in chapter 21 of the environmental statement document reference as 032.

#### 1:11:08

The screening criteria and the list of

### 1:11:10

projects considered for that cumulative assessment has been agreed with the host authorities and it does consider the operation and proposed developments for other airports including Stansted, Heathrow, Gatwick and London City. And the methodology for that cumulative effects assessment is set out in that chapter but it involves looking at any areas of potential overlap where adverse likely significant effects could be identified from multiple airports. And the conclusion of that assessment is there are no identified cumulative effects significant effects because there are no areas within which the study areas within which you would anticipate adverse likely significant effects or overlap between different airports.

### 1:11:58

However, to respond to your point, I agree it does not mean that aircraft is not audible or not experienced within the vicinity of Luton Airport from from other airports. But what it does mean is that the aircraft are at sufficient altitude and at a noise level lower than the

### 1:12:20

lowest observed adverse effect level within which policy and guidance would indicate that there is no likelihood of adverse effects.

### 1:12:32

And for example, the planning practice guidance, noise is quite helpful in providing a description of that experience, which is noise levels below the lowest observed adverse effect level

### 1:12:44

is can be heard, but does not cause any change in behavior, attitude or other physiological response. It can slightly affect the acoustic character of the area, but not such that there is a change in the quality of life. And that is consistent with the findings of the cumulative effects assessment and with regard to other airport noise.

### 1:13:05

Thank you.

### 1:13:08

Mr. Lemon. Thank you, sir. Angelo. I'm all for that. Again. I think the representations made by members of the public do indicate that people are affected by the fact that they are overflown by more than one airport. So although

### 1:13:29

we're told that these are insignificant, I think the fact that people notice them, the fact that people have objected about them, and the fact that they are annoyed by them suggests that it is a local issue.

### 1:13:44

Thank you.

### 1:13:50

Were there any other points on agenda item five?

1:13:59 Mr. Eddings,

1:14:01 Michael Reddington, you said that

1:14:06 you can add cumulatively the various noise sources.

1:14:12 So, how is that dealt with in terms of mitigation?

1:14:18 For example, you have air noise, brown noise, traffic noise,

1:14:25 and they can't be added together in some linear fashion.

1:14:30 So how are residents supposed to feel that there is some sort of mitigation against the sources

1:14:42 and with the amplicon it respond.

1:14:46 Callum sharp for the applicant as the

1:14:50

conclusions of the combined effects assessment in chapter 16.9, or sorry, section 16.9 of chapter 60 Note the only

### 1:15:00

receptors which have the likelihood of experiencing adverse likely significant effects from multiple noise sources are a small number of receptors to the south of the airport, which experience adverse slightly significant effects from air and ground noise. Is this on Dean Street, right? That's right. Yes. Yep.

### 1:15:18

And those receptors are eligible for noise insulation, which would be equally capable of dealing with either aircraft noise or ground noise or the combination of aircraft and ground noise.

### 1:15:36

And if we can move on to agenda item six, then

### 1:15:40

we'll see airports MPs, obviously focus on Heathrow and we've already touched on that. You recognize the importance of respite from noise for local communities, particularly during the nighttime period?

### 1:15:50

And can the applicants explain what consideration has been given to a ban on scheduled night flights or to additional restrictions on air traffic movements during the night period. And in responding, please explain any implications that such restrictions would have on the commercial viability of the airport. So Rebecca clutton for the applicant? I'm just going to

### 1:16:11

there's just a few points I want to make. I'm obviously going to introduce both Dr. Sharpe on this, but I'm also going to ask Miss Condon to come and sit back up at the table as well.

### 1:16:21

Mr. De misconduct, just what because she's going to deal with the socio economic aspects of this. whilst they're getting into position, though there is a point that I wanted to raise in relation to this. Following issue specific hearing one on we were asked some questions about the drafting of requirement 27, in relation to the night movement cap, do you recall those. And one of the concerns that was expressed by the examining authority was the fact that we had a tail piece on that condition which allowed it to be amended in future with the agreements of local planning authority, having having discussed the matter overnight, we're content to remove that tail piece. And we're going to be bringing forward revised drafting to that requirement in the next draft TCO that will remove that tailpiece so that the capital remain in its current form.

### 1:17:09

Thanks for your positive.

### 1:17:13

Any comments on that particular point from local authorities?

### 1:17:19

By Friday for our council, thank you, that's noted and we'll we'll take a note of that in our response to ice age one. Thank you.

### 1:17:28

Sir. Having said that, then I'll ask first of all, Dr. Sharp to introduce a few matters and then he'll hand over to Miss Condon.

### 1:17:40

Callum sharp for the applicant.

### 1:17:42

So I think you've mentioned a couple of things there sort of noise controls, respite and an a night flight band. So I'll take those in turn if that's okay.

### 1:17:52

So in terms of the night noise controls, of course, the impact of night flights has been assessed and as set out in chapter 16 of the environmental statement, and the conclusion is that there are no significant effects for nighttime noise and that is because of a combination of mitigation measures and mitigate tree compensation. So the measures include the noise envelope, and it's legally binding framework of contour area limits specifically for the full eight hour nighttime. That's secured through the green controlled growth framework, EPP dash 218

### 1:18:32

Scotland as just mentioned, the 9650 movement limits which is secured in requirement 27 of the DCO. And of course, there is also the extended noise insulation scheme which includes the full cost of installation for bedrooms exposed above the 55 DB nighttime significant observed adverse effect level, as well as various tiers below that. And that's secured in the draft compensation policies measures and community first document rep 2005 through section 106 agreement

### 1:19:10

in terms specifically of respite, aviation policy and guidance actually considers respite and ban to be two quite distinct things.

### 1:19:22

In the interest of time, there are several paragraphs which I'm going to reference I won't quote them out in full but I will if the if the panel would like me to, but paragraph 3.32 of the aviation policy framework,

### 1:19:36

the glossary and Annex A of the air navigation guidance and paragraph 561 of the airport's national policy statement or provide a clear and distinct definition of respite which is separate to that of a curfew or a ban of night flights in which there is there is no operation and the way that respite is described in those various parts.

### 1:20:00

Seeing guidance documents is a distribution of noise across a geographic area. So for example, the or the examples provided in those documents are runway alternation at Heathrow or flight path alternation that could be delivered through an airspace design.

### 1:20:18

So, in terms of respite at Luton Airport, because of course it has one runway, runway alternation is not a possibility. So, the only mechanism for delivering respite in the way that it is described in policy and government guidance is through airspace, alternation and the possibility of flight path alternation. Now, of course, we've already explained and undiscussed it in our various representations and written submissions that the airspace change processes is separate. And we've provided a note to that effect in rep 1028. However, I think it is worth noting in the context of respirators, we're talking about it here that the airspace change. proposals being put forward by the airport operator include this specific design principle of looking at options for respite, the flight path alternation.

### 1:21:10

So that's what I wanted to say about respite. And then finally, in terms of a ban on unscheduled night flights, and again, I won't quote in full from the policy documents. But aviation policy framework at paragraph 335 refers to a I think it uses the terminology of curfew rather than a ban, but in the context of the voluntary curfew at Heathrow Airport, and again, within that paragraph, it separates it from the concept of respite.

### 1:21:41

And, of course, the airport's national policy statement at paragraph 562 refers to ban on scheduled night flights specifically in the context of Heathrow expansion. And that was an extension of the already existing voluntary curfew at Heathrow.

### 1:21:58

And it was a proposal put forward by Heathrow as part of the airports commission specifically in the context of the benefits brought about from the third runway expansion.

### 1:22:09

So the reason I mentioned those specific policy documents is I think that reinforces the previous point about respite being separate from a ban and that the fact that other than in the specific context of expansion at Heathrow, there is no policy requirements or even expectation that a ban on scheduled night flights should be introduced.

### 1:22:35

Before I pass on to miss Condon, just to make the point that in the recently revised overarching aviation noise policy statement, of course, it mentions that there should be a balance between the economic and consumer benefits against the health impacts of night flights are particularly mentioned.

### 1:22:55

And the accompanying policy paper doesn't know the adverse effects may be offset by an increase in economic and consumer benefits. So particularly in the context of a ban on like flights, I think the socio economic factors are are particularly relevant.

### 1:23:11

So when I was planning to pass on to miss Condon

### 1:23:20

Wisconsin for the applicant, yes, just adding to what Dr. Sharpe has said. One of the considerations here at Luton is the vast majority of operations, both now and in the future, are undertaken by airlines who base their aircraft at the airport. Now, that's not to say that airlines aren't based at Heathrow. But a lot of the British Airways fleet at Heathrow, for example, is based away from Heathrow and flies back in in the early morning hours.

### 1:23:47

One of the reasons that drives economic benefit at Luton is actually because you've got those based aircraft that are generating jobs create jobs based here locally, there are fundamental parts of the economic benefit. Those based airlines, particularly the low cost airlines, that are the major drivers of growth at Newton rely on achieving optimum utilization of their aircraft throughout the day, generally doing two or three return sectors in a day, which means that they depart as early as they can in the morning after six o'clock, which is still within the night period, but not the night control period. And we'll arrive back typically late evening, sometimes into the early hours. Now, if you said to those airlines, I'm sorry, you can no longer do that at Luton, there's a night curfew in place, they will simply integrate their loot operations and economic and they probably wouldn't fly to and from Luton anymore, they would fly elsewhere. And that gives rise to the consumer detriment that I talked about earlier. It would either put the airfares up because they were having to make their money off those aircraft with fewer hours of utilization. Or they will simply say it's like economic to operate.

### 1:25:00

Luton will will take the flights elsewhere. And then the consumers would have to travel much greater distances, potentially paying more to fly. So there's a broader piece there around. The producer said in your question.

### 1:25:12

Does the night band destroy the economics the operation? Yes, it would.

1:25:20 Thank you. That's helpful.

1:25:22 I notice Mr. Hale is

1:25:25 has a hand up. Mr. How would you like to come in?

### 1:25:29

Thank you very much. John Hill from St. Albans, cloudy skies. I'm sorry, Mr. Hill, you're very faint. Could you possibly speak up or come close to the microphone. I'm coming close to my microphone and speaking up. Hopefully this is clearer.

### 1:25:44

That's better thanks. My apologies.

### 1:25:48

When the noise preferential routes were introduced in about 2013 2014. At the same time as the previous increase, respite was offered as a potential solution to the concerns of residency in North St. Albans and SandRidge.

### 1:26:06

In the

### 1:26:08

10 years since it's become apparent that such respite is not easily achieved, due to the impact of our airports and the need for a coordinated approach to this. Hence fasci self

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given the impact that London Heathrow has on fuzzy south and the fact that it's such a major airport, residents would view that respite is unlikely to be achievable. And I would ask that the inspector really considers that respite is not something that the airport is capable of delivering and should not be taken into account in coming to is your decision. It might be an additional upside at some time in the future, but it is not likely to happen. I hope that's clear. And not sure how my team's is working. So my apologies if you can't see me.

### 1:27:04

That's that's fine mist. Hello, I don't think the applicant is arguing that respite would be an option. Thank you.

### 1:27:17

Moving on to

### 1:27:19

yesterday, there was discussion about

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current controls through the planning permissions that exists for the airport. And I know a number of representations have been keen to

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highlight that there are a wide range of controls, and the present permission then would be in the future and a nighttime noise violations. Obviously, a control, quote account greater than two is a control.

### 1:27:51

Why is a similar restriction not proposed for future operations?

### 1:27:58

Callum sharp for the applicant.

### 1:28:02

Our position is, we don't think it's effective or appropriate simply to map across some of those controls. We've set out our position particularly on that basis in the comparison of consented and proposed

operational noise controls document which is referenced as one to one. Within that document, we go through each of the controls one by one and describe

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how each of those controls are either improved upon by the proposed controls within developed concern order.

### 1:28:36

Or justification is provided as to why it wouldn't be effective to retain those. And again, going back to the overall principle of the noise controls within the noise envelope, it is the noise outcome that we are seeking to to secure and control.

### 1:28:53

We have also done additional analysis on the current consented noise controls within the paper that we submitted at deadline two, which is the noise envelope improvements and worked example document which is a reference rep 2032.

### 1:29:14

And within that document in particular, we have looked at the effectiveness of the existing controls in relation to the noise limit breaches that occurred in 2017 to 2019. And we've used that learning as well as the analysis of the

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current conditions to actually make updates and improvements to the noise envelope, which we've demonstrated within that work example shows that we're moving to a forward looking approach, which would have been successful in in achieving the noise controls within the current consent in terms of the contour area limit in a way that we've been able to demonstrate the current consented controls were not able to

### 1:30:01

I'm happy to just provide a little bit further information, you mentioned a couple of those particular dwelling that I can. I appreciate that you are working in the context of looking outcome. And that's largely related to the LA cube. Obviously, the policy does allow for the application of supplementary metrics to be considered as part of the decision making process. And for an issue like removing the quote account cap, obviously, you could see that there would be concern from locals during the night period, that larger aircraft and might be flown that are currently flown and therefore, there are noisier overflights happening during the night period.

### 1:30:40

I'm sure for the applicant, yes, happy to respond to that point in particular. So the current quarter count cap applies only to six and a half hours of the night time period. It's worth acknowledging that that cap was not exceeded when the noise contour area limit was exceeded. So it wasn't a sufficient means to avoid that overall impact occurring.

### 1:31:05

The improvements that we've made to the noise envelope at

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deadline to in the document that I referenced, actually bring in a quote account budget, which covers the full eight hour night period. So the new mechanism is that Onyx seems have a level one threshold, the nighttime full eight hour contour would be converted into a QC budget, which will then be used not as a retrospective exercise in the same way that the current cap is applied, but actually in a forward planning exercise

### 1:31:39

to ensure over the next five years that that quote, account budget is respected and considered as part of the plan growth at the airport and the slot allocation process. And of course, in relation to any potential for a future breach, which could then be identified in advance and avoided. So there is an effective QC control in there, and we believe it is a more appropriate and effective QC control and the current one, yeah, I am I am aware of the QC proposals in the noise envelope submission

### 1:32:16

process, I'm using the wrong terminology, but I was meaning individual aircraft with QC greater than two are currently banned in the light period. And the count, whilst it would generally control the sort of totality of noise over the course of the year wouldn't control the individually aircraft. Sorry, my apologies for the misunderstanding. Yes. And again, we've we've provided commentary on that particular point in in that comparison document, and note that the QC two aircraft at night are effectively phased out and no longer part of the fleet.

### 1:32:48

And but that's not currently secured.

### 1:32:51

That's correct. It's not currently secured, we don't see that it would be necessary to given that there are no longer a part of the fleet.

### 1:33:00

But with the potential for aircraft to increase in the future in size with the long haul destinations, actually, is it more likely that those aircraft could could be present with the airborne?

### 1:33:12

Well, again, I think that goes back to the overall point within the control that that would be taken into account in the QC budgets, because if they were larger, if each aircraft had a larger QC, then that would increase the QC budget and also the noise contour area limit. So there are certainly controls within there.

### 1:33:34

Mr. Landlord, Thank you, Sir Andrew Lambo a lot of can wonder if I might revisit the point I was going to raise a little earlier on in this context, because it all sort of fits together.

### 1:33:46

We'll just wait until I can be heard.

### 1:33:51

The point that I was making earlier was that the noise envelope has been reduced effectively to one control contour areas.

### 1:34:03

And that this is against what policy recommends and I'm particularly looking at the paragraph 3.19 of the aviation policy framework, which does advocate not just relying on an average measure, but also measures which better reflect how aircraft noise is experienced.

### 1:34:28

And the context of my original comment was when we were discussing ways of incentivizing quieter aircraft, nothing this applies now, particularly at night, that the the discussion has rather founded on the fact that we're talking about two different kinds of quota count. And the point is, which is the problem is the individual aircraft may create high levels of noise, even though those don't necessarily breach a contour limit or a quote account.

### 1:35:00

limit, but they do create an awakening. And it's almost the noise violation limit, which we've lost in terms of perhaps incentivizing those aircraft not to be used. So that is a key point. And we can elaborate that on that in writing to save, taking time now. But I think coming also to the point that you'd raised about respite, again, we've had responses in terms of policy interpretation of respite, whereas I think from your question is quite clear that what you were discussing there, were intending to discuss there was a ban during a certain period of time. And I think there we go to the

### 1:35:45

ICAO balanced approach, which is supported by policy and does ultimately advocate that if necessary, as part of what one would expect to be a complete mitigation hierarchy. An operating restriction could be used with a goal of addressing the noise problem in the most cost effective manner. And that all of this

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is

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in conjunction with community engagement and community consultation. And that's where we have the real problem with what happened with the noise envelope design, which is that it was agreed by the noise envelope design group. But now we have just a single control, which wasn't a great and I I'm hoping that the joint authorities will pick up on this point as well. Thank you. Thank you, Mr. lamborn.

### 1:36:39

I've had a message from my colleagues about the potential for another break, talking of respite.

#### 1:36:46

There are a few more matters on the agenda that we would like to cover. Are people happy to take another short recess

#### 1:36:56

now

### 1:37:05

with the local authorities like to respond to miss lampoon's Winshuttle

#### 1:37:12

and Holcomb, for the local authorities, I think they'll try and respond to points raised by the applicant as well as Mr. lamborn tried to go through them all but to keep them short as possible, but let me know if I were to brief.

#### 1:37:27

The applicant as as focused, the green controls growth strategy on outcome basis. But this does seem to ignore the fact that the breaches were known or the breaches were expected in advance already, the operator at the airport was well aware that a breach was expected just wasn't forward looking enough.

#### 1:37:51

And then moving on. These controls are all separate. So there was reference to the QC and the nighttime not being breached when the summer FAQ contours where they are separate things. The kisi currently in operation at the airport over the six and a half hour night time period is an annual quota and isn't necessarily going to pick up or be breached when there was a breach of the summer nighttime contour followed by the day and nighttime contour over three years.

#### 1:38:25

The existing for noise controls in planning conditions, and the section 106 will form a suite of measures that operate at different times do different things that you can have a Summon, some are contours, an annual movement limit, a nighttime QC count, a shoulder period, QC count, they all do separate things. They are not you don't have a quote account condition that simply says I'll this will help you not breach your summer control period. They are their own separate distinct controls.

#### 1:39:01

Also, a QC count isn't a supplementary metric. I don't know how he is assess noise on a QC but

### 1:39:12

yes, and there's also a point that QC one aircraft now banned at nighttime at loosen. And I think that's through the section 106 Sorry, I thought it was QC two apologies. I just thought I'd recommend that one out.

### 1:39:26

It's through the noise management plan. Thank you.

### 1:39:31

And then the QC budget that's proposed by the applicant within the note that they referenced is an internal tool for the operator of the airport to see that they are on track to meet their summer night or summer contour

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construe constraints. This isn't its own condition. This isn't its own control. It's simply an internal tool to check that they are doing what they're meant to be doing, which is what every other app

### 1:40:00

is managing to do.

### 1:40:04

And it's

### 1:40:06

it's also over the same time period. So that's proposed to be a summer period one, rather than an annual one which is currently in place. So they are very distinct separate things again, Mr. Lamba, warned point was on the energies recommendations, the NAD G spent a lot of time on the noise envelope design group. For those

### 1:40:26

not familiar, the energy G spent a lot of time setting out a range of metrics that could apply to form controls that applied throughout the year at different time periods.

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These have all been

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swept aside by the applicant in favor of a single one.

### 1:40:49

And I have forgotten anything else Mr. Lamb once said, so is there a specific question?

### 1:40:57

Well, I just mentioned the noise violation limits as well as trying to by Mr. lamborn. It's not a conversation between parties.

### 1:41:05

I think Can we pause the session there. We'll take a 10 minute recess, and we'll rejoin

### 1:41:15

me, okay. Thank you.