FAA Noise Policy Review Webinar #2

https://www.youtube.com/watch?v=6G6fIVf2SJE&t=2522s

[Don Scata]

Welcome to our Noise Policy Review webinar. Thank you for joining us today. My name is Don Scata, and I manage the noise division in FAA's Office of Environment and Energy. I will be presenting some information regarding FAA's Noise Policy Review. Following this presentation we will host a live question-and-answer session. The entirety of today's webinar will be recorded and posted to FAA's YouTube channel and our Noise Policy Review webpage at https://www.faa.gov/noisepolicyreview.

Throughout this presentation and during the question-and-answer session following this presentation you may submit questions by clicking the Q and A icon at the bottom of the zoom window. There is no need to wait. You will not be able to see questions asked by others; however, you will see your own questions. If we receive similar questions, we will combine them into one question. You may also submit questions to FAA's YouTube channel if watching live. We will do our best to answer as many questions as possible during this webinar. Please note questions and comments made during this webinar will not be recorded to the federal docket. To make an official comment, a link to the Federal Register Notice is available at https://www.faa.gov/noisepolicyreview.

In late 2021, the FAA initiated a review of our noise policy as a part of our ongoing commitment to address aircraft noise. This effort will build on our work to advance the scientific understanding of noise impacts as well as the development of analytical tools and technologies. It will consider new evidence from the agency's noise

research program including from the neighborhood environmental survey and the distribution of environmental risks, trade-offs, or externalities across communities.

Our goals are to identify and implement well-reasoned, scientifically grounded noise policy updates that incorporate FAA's updated understanding of aviation noise and human response and the development of analytical tools and technologies to better manage and reduce the environmental impacts of aviation. We also aim to conduct an inclusive, transparent, and participatory process that prioritizes input from substantially affected stakeholders including local communities.

The FAA published our Noise Policy Review Federal Register Notice on Monday, May 1, 2023. That publication started a 90-day comment period that ends on Monday, July 31, 2023. The Federal Register Notice includes a brief background on FAA's noise policy and also links to a companion framing paper. The request for comments includes 11 questions. Respondents don't have to answer every question when submitting their response to the docket.

The companion framing paper is entitled, "The Foundational Elements of the FAA Civil Aircraft Noise Policy: The Noise Measurement System, its Component Noise Metrics, and Noise Thresholds." The framing paper was designed to be read in parallel with the Federal Register Notice; it provides additional context and discussion around the 11 questions included in the notice and provides context for the review. We wrote it to help aviation stakeholders better understand the questions included in the Federal Register Notice.

The scope of this Federal Register Notice is on the foundational elements of FAA's noise policy metrics and noise thresholds. Regarding metrics, we are taking a

hard look at the day-night, average sound level and are considering other metrics such as number above as well as how each of those metrics are calculated. Regarding noise threshold in light of Neighborhood Environmental Survey findings and other research, we are considering whether to lower below DNL 65 dBA the definition of the level of significant noise exposure for actions subject to environmental review and are also considering modifying the definitions of the levels of noise exposure that are deemed normally compatible with airport operations as set forth in part 150.

The FAA recognizes that aviation noise is a pivotal quality of life issue for some. Aviation noise experiences differ. Communities and individuals have different interests, values, and concerns, and the information about aviation noise that is sought May differ. At the same time the FAA is developing a policy that will apply to the National Airspace System with a large number of stakeholders: those who operate in the system, the traveling public, and those affected on the ground. The interests and concerns of these parties are different: representing different interests, concerns, and priorities. The FAA is committed to ensuring that we provide meaningful, equitable, and transparent access to all stakeholders during this process. The public comment period helps us accomplish that goal; further, it provides opportunities for us to engage with the public and stakeholders in a consistent way so that FAA understands how we jointly view the noise problem and begin to think about potential solutions or improvements to the way our agency interacts with the public and explains how their experience of aviation noise will change over time as a result of FAA action.

Now is the time to provide input as FAA has not yet made any decisions regarding what if any of its noise policy will be updated. Your input will help us

understand how we can improve community understanding and expectations regarding future noise exposure, and also how FAA makes decisions regarding the topic. The questions in the Federal Register Notice are designed to get input that will supplement our technical expertise and consideration of aviation noise issues. We welcome any comments that our stakeholders are willing to provide and are particularly interested in the public's response to the questions and issues identified in the notice. We are looking for specific recommendations, explanation for any recommended changes, and supporting information or data comments addressing potential improvements in how, where, and with whom FAA communicates changes in aircraft noise exposure will be particularly helpful. Please note comments regarding the level of aviation noise at specific locations should be made on the FAA noise portal at the link provided.

The request for comments provides an opportunity for knowledge and potential solutions to flow from the public to the policy makers at the FAA. Our agency recognizes that those affected by our policies will have views and ideas on them, and how they can be improved. We are eager to hear your input and understand your reasoning. The FAA requests your substantive comments. You may ask what that means. A non-substantive comment is one that is not related to the issue under consideration and does not offer data or information that can influence the policy outcome. For example, a noise complaint regarding aviation activity over a specific location is non-substantive and should be directed to the FAA noise portal. Three types of comments can provide substantive input for agency decision makers to weigh. First, comments regarding scientific or economic evidence and specialized expert knowledge relevant to the topic at hand are helpful. For example, comments that explain what

information is not currently provided by the DNL noise metric that may be disclosed by the application of another noise metric are helpful. So, too, would a comment that provides information about the economic impact of a different noise threshold: including describing how the conclusion was drawn, what data was relied upon, and what assumptions were made in the analysis. Comments should explain how they are supported by data and why the commenter believes that they are backed up by best available science.

Second, comments that point to factual or legal flaws in current or proposed policies, identify gaps between agency policy and legal requirements, or why the policy does not adequately resolve the problem it is intended to address and discuss the likely unintended consequences of an agency policy.

Finally, submissions that provide alternative solutions or enhancements to the rule and explain why these proposals are better suited to resolve the issue than the policy intends to address.

This slide presents a collective view on historic and current noise problems. Historically noise issues were airport-centric, result of infrequent operations and dispersed flight paths, and very loud jet aircraft. Noise concerns were raised primarily by communities immediately adjacent to airports. In communities lived experience included low cadence of relatively loud aircraft noise events separated by long intervals. Our current noise problem is an airspace or overflight noise problem resulting from frequent operations, concentrated flight paths, relatively quiet aircraft, and noise concerns raised primarily by corridor communities further from airports.

Communities lived experience includes a high cadence of daily, relatively quiet aircraft noise events separated by short intervals. In addition, there's been an introduction of new entrant and commercial space operations. Now we're going to start unpacking some of the questions in the Federal Register Notice.

Questions 1 and 2A request information about the aircraft and vehicle types and operations that the policy should address. Looking at fixed-wing aircraft, helicopters, rockets, future supersonic aircraft, or new entrant technologies like UA, drones, or Advanced Air Mobility aircraft, such as air taxies, how and what elements of the operations should be described using noise metrics, and how information should be used by the FAA to communicate with the public regarding changes in noise exposure, and to make decisions.

Question 2B through E asks things like: who is and will be affected by aviation noise? In the vicinity of airports versus overflight communities; the vicinity of commercial space launch or re-entry operations; the vicinity of UAS or other newly emerging technology operations. How has your experience of noise changed over time? How do your interests and concerns differ from others based on your location and experience of aviation operations? How would different noise metrics address these concerns?

Congress directed the FAA to establish a single system of measuring noise in the Aviation Safety and Noise Abatement Act of 1979; what we call ASNA. The system must have highly reliable relationship between projected noise exposure and surveyed reactions of individuals to noise and be applied uniformly in measuring noise at airports and the surrounding area. The single system must account for noise intensity, duration,

frequency, and time of occurrence. FAA's noise metric system relies primarily on the day-night average sound level, or DNL; it is a single number metric to quantify cumulative aircraft noise exposure over a 24-hour period accounting for noise intensity and magnitude, duration of exposure, frequency, or number of events, and the time period in which events occur, such as day or night. It's FAA's primary decision metric for actions subject to NEPA and airport noise compatibility planning studies prepared pursuant to 14 CFR part 150.

Question three asks about the DNL metric as a whole. What views or comments do you have regarding DNL? About its benefits or shortcomings? Would these views change if another metric was used as a companion supplement or alternative to DNL?

A companion metric is a noise metric that is used in conjunction with another noise metric such as DNL for decision making. A supplemental metric is a noise metric used to improve the public's understanding of the expected change in aviation noise that is not used for decision making. An alternative metric is a noise metric that is used *in lieu* of another metric, such as DNL, for decision making. Would these views change if FAA changed how DNL is calculated?

Question 4 asks about the calculation of DNL and averaging. DNL is calculated using the concept of an average annual day which averages annual aircraft operations into a single, representative day. Do you believe average annual day appropriately describes noise impacts? What other averaging schemes should be considered and what do they capture that average annual day does not?

Question five asks about possible decision-making metrics and how they can interact. What noise metrics should be used for decision making for actions subject to

NEPA and airport noise compatibility planning studies prepared pursuant to 14 CFR part 150? Should different metrics be used in different circumstances? If so, how? Should FAA continue to use DNL for decision making? How can metrics be used to support better agency decision making?

The FAA is reviewing many metrics that could be considered as a part of that system including both cumulative metrics, such as the traditional DNL or CNEL, but also other cumulative metrics, such as an eight-hour day, which could be used to evaluate school and work settings. We will also review a range of operational single event metrics including number above, time above, Lmax, and others that might be suggested. Finally, we are working closely with FAA's office of commercial space to evaluate metrics that are more appropriate for low-frequency or impulsive noise, such as commercial space launches. The most appropriate metric could depend on the purpose of the analysis, the audience, and several other factors.

Changes to DNL could include changes to adjusting the threshold, averaging technique, and or changes to its nighttime weighting. DNL with additional supplemental metrics can be used together. Number above, or NA, answers how often will the aircraft level meet or exceed a certain level. Time above, or TA, answers how long will the sound last at or above a certain level. Number above and time above break the DNL metric into its component parts to help explain the noise exposure in a different way.

Question 6 asks about communicating changes in noise exposure. FAA's current supplemental noise metric policy is contained in FAA's NEPA policies and procedures - FAA order 1050.1F. The FAA uses the policy to engage with the public to better explain changes in noise exposure.

Supplemental metrics are not used for decision making. If the FAA were to change this policy, should FAA consider what information FAA communicates regarding changes in noise exposure? Where and with whom FAA communicates? What information methods FAA uses to communicate? What venues FAA uses to share information regarding changes in noise exposure?

FAA noise thresholds refer to two different levels: FAA significant noise impact threshold for actions being reviewed under the National Environmental Policy Act, or NEPA, and the land use compatibility guidelines established in 14 CFR part 150 Appendix A. Noise thresholds are informed by a historic dose response curve called the Schultz curve which provided a useful method for representing the community response to aircraft noise. Both are set at DNL 65 dB.

Regarding noise thresholds, question 7 asks how should historic and neighborhood environmental survey findings be considered in establishing a noise threshold for actions subject to NEPA and land use noise thresholds in 14 CFR part 150? Should FAA consider other information regarding noise impacts in establishing noise metrics? Should the noise thresholds be established using DNL or another cumulative noise metric?

Question 8 asks should FAA establish noise thresholds using single event or operational metrics for certain types of actions subject to FAA approval or control? When should FAA use these metrics? What should be the level of noise exposure that defines the limits of significant noise exposure in NEPA analyses and for actions subject to 14 CFR part 150?

Question 9 asks about low frequency and impulsive noise events. Should the FAA establish noise thresholds for certain types of actions subject to FAA approval or control such as when the FAA office of commercial space transportation authorizes a launch and re-entry of commercial space transportation vehicles? What should be the level of noise exposure that defines the limits of significant noise exposure in NEPA analyses and for actions subject to 14 CFR part 150?

Question 11 references the body of scientific and economic literature compiled by the FAA regarding the way aviation noise correlates with annoyance as well as environmental economic and health impacts. It refers the public to Appendix 1 which synthesizes health impacts, such as cardiovascular sleep, mental health, birth outcomes, and children's learning. Also, it looks at annoyance, noise effects, noise level recommendations, alternative metrics, flight track dispersion, military jet noise, and mental health. It looks at economics and things like health costs and home values and also summarizes synthesis research.

Question 10 asks what other issues or topics should the FAA consider in this review regarding noise metrics - the method of calculating them; the establishment of noise thresholds; or FAA’s method of communicating the change in noise exposure. We ask the public to please explain their response. This Noise Policy Review could have a number of potential outcomes. It could result in FAA updating our regulations, orders, guidance, etc. For example, FAA might revise the threshold of noise-sensitive land use compatibility for 14 CFR part 150 and or environmental reviews. It might also provide additional guidance on how to prepare those documents. It could result in different levels of analysis and review for a particular action, such as a change in a flight

procedure, and it could result in identifying better ways of communicating with the public about the effects of noise. While this policy review is an important step for the FAA to take it is critical that we are transparent and clear about the effect any policy changes could have on existing noise exposure. There are some things that will not be affected by any policy changes being considered in this review. Changes in policy alone will not reduce noise exposure. For future environmental reviews a change in policy could result in different outcomes that may have reduced impacts depending on what alternatives are available and the specific Federal action being considered.

The proposed policy changes we are talking about here will not change where and when aircraft currently fly; however, as just mentioned, future decisions would take into account the new policy and may result in less impactful outcomes. And finally, policy changes will not require FAA to redo any environmental analyses or decisions that have been made. Future environmental reviews completed after any policy changes were implemented would take into account any changes. For additional information you can visit our Noise Policy Review webpage at https://www.faa.gov/noisepolicyreview. You can also email us for additional information at NoisePolicyReview@faa.gov or leave us a voicemail by calling 202-269-6999. Now we're going to shift gears for our Q&A session.

Our Q&A session is about to begin. You may submit questions by clicking the Q&A icon at the bottom of the zoom window. You will not be able to see questions asked by others; however, you will see your own questions. If we receive similar questions, we will combine them into one question. You may also submit questions to FAA's YouTube channel if watching live. We will do our best to answer as many

questions as possible during this webinar. Please note questions and comments made during this webinar will not be recorded to the federal docket. To make an official comment a link to the Federal Register Notice is available at https://www.faa.gov/noisepolicyreview.

And now I'd like to introduce today's panelists as I've already introduced myself, I will start with Adam Scholten. Adam is an Environmental Protection Specialist in the noise division of FAA's Office of Environment and Energy. Adam has 13 years of experience working in aviation eight of which have been in the environmental field. Adam began his aviation environmental career as a consultant specializing in airport noise before joining the FAA in 2021. As a consultant, Adam conducted noise modeling utilizing FAA tools such as the Aviation Environmental Design Tool and worked extensively to support airports and community round tables, to analyze aircraft flight procedures, and provide guidance on the development of alternative procedures that could help to reduce noise exposure. Since joining FAA Adam has focused on developing methodologies to assist the FAA in assessing noise associated with unmanned aircraft and working with others in the noise division to launch the FAA's Noise Policy Review.

Andrew Brooks is the regional environmental program manager for FAA's Eastern region airports division. Andrew has over 24 years of experience working in the environmental field 21 of which are with the Federal Aviation Administration. He began his career with the Environmental Protection Agency before joining the FAA in 2002 as an Environmental Protection Specialist. He has served as the Eastern region environmental program manager for airports division for the last 11 years managing

complex environmental projects and noise compatibility planning on behalf of the FAA across seven states in the District of Columbia. Andrew is a national expert on aviation noise and compatibility planning and has been an instructor for the FAA's noise and land use compatibility planning course for the past seven years.

Ryan Weller is an Environmental Protection specialist for the FAA's Western Service Center. He started his FAA career in the Northwest Mountain Technical Operations Division in 2001 and moved to the Western Service Center in 2007. Prior to Federal service Ryan worked in private industry in the chemical and hazardous waste industry. Ryan has managed environmental reviews for regional and local airspace redesign projects along with military special use airspace projects.
Thank you again for participating in this webinar as we begin the Q &A session. I'd like to invite our panelists to turn on their cameras we will begin the Q A momentarily.

Okay Welcome to our noise policy review question and answer session this evening. This is the second of four virtual public workshops to share the same information and experience for all interested members of the public. We hope that the presentation answered some of your questions and we'll answer as many of the relevant questions as we can in today's Workshop. You can submit questions via the Q &A box on Zoom or as a comment on the YouTube live stream. We may not be able to answer all questions today due to time limitations relevance of questions or lack of information necessary to provide answers. In addition, we don't publish the questions and comments we receive in this live setting because we believe it's in the Public's interest for us to devote the time and attention of our staff to answering relevant

questions rather than screening out unrelated, inappropriate, abusive, or aggressive content. We appreciate your understanding of these limitations. As a reminder you can submit any noise complaints to the FAA at our noise portal which can be found by going to https:/noise.faa.gov. Okay, looks like we have our first question and thanks to you all who have been so many questions throughout the presentation. I can see a fair number of queued up already. First question is or commented question I understand that planes may be getting quieter but there seems to be more and more flights. How is your noise your new noise policy going to consider the number of times an airplane's flying over my house. Adam, do you want to take this first one?

[Adam]

Sure, I'll take this one and you're correct planes are much quieter today than they have been at any point historically and technology is advanced in terms of quieting aircraft tremendously over the last 50 years and more so than that. However, as those of us that work at the FAA see and see commonly, the public seems to be as concerned now if not more so by the cadence of aircraft operations and that's a valid concern because they have been increasing and we're now at the state where they've returned to even pre-pandemic levels, you know prior to covid-19 and going back to 2019.

[Don]

Thanks Adam

I think also I can add to that. The FAA doesn't decide how many planes fly in and out of an airport or even which airplanes an operator uses. That's driven by market demand such as tourism or business travel. We know that can be a concern and we encourage those concerned to address them to the local airport operator in your area.

[Ryan]

I'll kind of piggyback on that Don. Yeah, I mean definitely we've seen the numbers increase to the pre-pandemic levels and even though the aircraft are getting quieter, there's obviously a lot more of them and so that's kind of part of this initiative is to is to look at the metrics that we're using, the noise metrics. and saying okay even though we have quieter aircraft, what is the best metric and what's the best standards to use to evaluate the impacts of these of these frequent flights, The other part that we're seeing a big increase in is the new entrance into the airspace. We have a whole group of drone or unmanned aircraft that are entering the airspace and we also have the commercial airspace and space launches which are increasing all the time. Everyone's seen those in the news and it seems to be a very hot topic that is increasing quite often. So, these are all things that need to be considered in this process to see what is the right metric and what's the right standards to use moving forward

[Andrew]

Don if I could just jump in as well, I think Ryan brings up several good points and that's really the goal of this effort here is you know we recognize the dynamism that is facing us coming forward in the future of Aviation and our current system is kind of a one-size-fits-all approach of applying DNL and that we're finding is not only may not be applicable to some of the actions that'll be coming before the agency in the future but also DNL in and of itself is a metric that based on our 40 plus year history of use and engaging with the community on is somewhat complex to understand. So, one of the other avenues that we'll be exploring via the noise policy review is to you know address supplemental metrics or consider better use or more robust guidance for supplemental

metrics for those situations wherein frequency of flights are increasing so consideration of things like a Time Above (TA) metric where we can set a threshold at a value such as 70 decibels or 80 decibels and then report the amount of time in a day in a week in a month or a year that that threshold will be exceeded. That may make more sense to some folks rather than seeing an averaging of the noise over a 24-hour period or even a Number Above (NA) metric wherein you just count the number of events over that threshold. Those seem to have folks have a better understanding of exactly what's coming forward. So, thank you Don I appreciate that

[Don]

You're welcome, thank you all that was a good team effort. Next question. We're getting a number of comments and questions asking the FAA to go back and address NextGen, including an observation like now that you know your measurements are wrong; why won't you go back and correct the changes that you made that are now adversely affecting communities. Adam, do you want to take a shot at that one?

[Adam

Sure, I can at least start to answer that, and it is a really good question and thank those of you that raised it. You know as many folks know, the FAA designed and conducted the Neighborhood Environmental Survey or NES to obtain the best available science and confirm the anecdotal evidence we've seen over the years since our noise policy was initially implemented, that community members appear to be more annoyed by Aviation noise then we previously thought and that is what was confirmed by the NES, that people generally are more annoyed. But just because people are more annoyed that doesn't mean that the measurements themselves are deficient and the

tools we use in measuring noise, that doesn't mean they're deficient and they're still correct. However, people's perception of that noise is different and that's what the NES showed overwhelmingly and now we're working in this policy review to account for that.
[Don]

That's right Adam, you brought up the NES, I think it's worth just explaining for a second what we did with that study. We surveyed a number of people around the United States and created a series of individual airport dose response curves, around 20 different airports that were surveyed, and use that information to create the one NES curve. This new information certainly warrants us taking a look at our policy, but you know as you learn information there's really not reasonable to go back and redo everything that's been done over the last 50 years. So, learning this and having the NES results available has certainly prompted us to take a look at what we're doing going forward. I think it's also a great point to remind everyone that when we talk about changing our noise thresholds, that does not change the noise level in communities. I usually say something like, you know changing our noise thresholds is not the same thing as turning down the volume on a radio. It's not going to have that effect t. It could change other things but it's not going to create an immediate reduction in noise around airports or in local communities

[Ryan]

I'd like to interject, there's definitely, like we mentioned before, the numbers of aircraft are definitely increasing. They are quieter but we're just getting more of them and so what we found is during the pandemic there was this kind of increase in I think it was an opportunity for the airlines to say hey we want to upgrade our Fleet we want to

get these quieter more efficient aircraft and so we're seeing a lot more introduction of that kind of aircraft into the into the NAS and I think that's a good thing it's just a matter of there's a lot more of them than there were before

[Don]

That's a good point Ryan and that shows that our noise source control program, the way that we address aircraft noise at the source, is doing a good job ensuring quieter aircraft that are more efficient and less polluting are being certificated and available to be operated in the United States and airlines are responding by upgrading their aircraft to use their aircraft Fleet without any mandatory phase-outs or anything like. Second, our research and development Partnerships with Academia and other parts of the government and Industry are accelerating the development and adoption of more environmentally friendly and quieter Technologies. As these Technologies mature, Aviation stakeholders are adopting them, and we have programs such as our Clean Program and our Ascent Center of Excellence that are working to accelerate the development of these Technologies alongside industry.

Question number three, we've received a lot of questions and comments about how FAA is designing and managing performance-based navigation or PBN procedures including RNAV, which is an acronym for Area Navigation. I think we should sort of focus this this question as it relates to the noise policy review just to give us a little bit of bounds on the question because it could go it could go quite wide. Ryan, do you mind taking that on?

[Ryan]

Sure, so I know this is kind of a broad subject when we talk about PBN and RNAV. That's a term that's often used or even NextGen, so you know this is kind of a term that that encompasses a lot of different technologies and it's not just one identified specific type of technology so what we've done is. and it has been a congressionally mandated system to implement, is gone through the NAS and found opportunities where we could optimize and make the airspace more efficient and predictable and so that's what we've been seeing in the last, let's say 10 years or so and really it's an efficiency where we're trying to get as much efficiency out of the airspace as possible given that the vast amount of, like I mentioned, the aircraft that are coming in and then also the new entrance and the and the commercial space and everything else so there's a lot of demand for airspace out there so PBN really does make it become more efficient and effective in the fact that we can actually have more aircraft in smaller spaces uh But one of the things that's key in that whole process and I've been involved in a lot of these airspace redesigns is having environmental, even though we have the purpose of the project is trying to make the airspace as efficient as possible, there's always this underlying element that as an environmental specialist or whoever is working on the project is a is key factor in the whole process and we're brought in early in the process so that we are considering environmental effects throughout the whole design and so even though the project may be about maybe correcting a deficiency, maybe there's some conflictions in the airspace or there's a troublesome spot, a lot of the discussion around what happens in the airspace is related to the environmental effects of it too and so that's one of the key parts of PBN , It’s not just always about getting the most efficient airspace, but also about what are the what are some other

environmental impacts that we consider during that process. So, we are involved early in the process, we have tools that we can use to actually do some early analysis before we get to a final design, and it's become very effective and kind of identifying those areas where we need to take a little closer look at it

[Ryan]

And if I can just jump in, just to provide some additional context in terms of significance so again you know the agency's goal is to reduce the number of people exposed to significant amounts of Aviation noise and when we discuss significant it has a lot of different factors in that regard So first and foremost when we're doing an environmental analysis under the auspices of the National Environmental Policy Act we are examining any action in front of the agency with regard to impacts on noise and then whether or not those impacts meet a threshold of significance as defined in our order and that threshold is within a 65 DNL Contour an increase of 1.5 decibels for a noise sensitive land use so the noise sensitive land uses are defined in one of our regulations known as title 14 CFR part 150 and that defines compatibility of land with exposure at different levels of exposure so for example the common one that we always refer to because it's the one that we get a lot of interest in is residential and residential structures are considered non-compatible above 65, with a couple of other provisions. So, in order for a residential structure to be significantly impacted by an action it would have to experience a 1.5 dB increase in exposure associated with either a PBN procedure or potentially some sort of Runway extension potentially a new runway you know maybe there's just a new procedure coming in maybe there's a new entrant being cleared to operate at an airport. These are the various things that that we consider

when we're looking at significance not only just in terms of noise but in terms of the compatibility of the land and of itself with regard to the noise being generated. So, thank you Don.

[Adam]

If I could just add to that last little piece. Just to make clear too in this noise policy review we are considering whether these definitions of significance should be modified or how based on you know our updated understanding of community annoyance not only from the NES but other research studies that have been out there as well as looking at other considerations beyond annoyance. We're not just looking at that we're going to consider looking at economics, technical feasibility and also looking at health impacts and one of the things we are requesting input on is as part of this process and is noted in the FRN is we have a bibliography of research that we are considering that's noted in the companion framing paper to the FRN and we're looking for feedback on other studies that maybe we should consider that that we didn't include in there and we welcome that feedback as part of this process so just wanted to note that we have our current significance threshold we're going to look at potentially changing it as part of this process and we're looking at not just annoyance to do that we're going to look at a variety of different factors in research

[Don]

Thanks Adam, I've been seeing a number of questions come through about asking about sleep disruption caused by aircraft operating late at night and early in the morning and the questions seem to be around whether a new metric could better

penalize or isolate nighttime event single event noise impacts. Adam do you want to take that one too?

[Adam]

Sure, I can take that. The FAA's current primary metric which is the day night average sound leveler DNL does have a weighting or a penalty so to speak that that accounts for aviation activity during the nighttime hours and by night time there's a specific definition for that it's after 10 p.m. and until 7 A.M the following morning and it treats those operations differently than daytime activity to reflect the greater sensitivity individuals have to noise while sleeping and specifically looks at weighting is basically every operation that occurs between you know 10 pm and 7 A.M is counted as 10 operations so it's 10 times worse so to speak. So that's accounted for currently in the DNL metric but there are a bunch of other metrics that could be used to account for that and there's a bunch of different weightings that could be investigated potentially to better account for those nighttime flights. You could wait DNL differently. You could wait other metrics differently if you wanted to use a Number Above (NA) or Time Above (TA) type metric. Really there's a lot of different ways you can account for those and that's something we're going to you know potentially consider

[Don]

Thanks Adam. I think also it's important to note that we have ongoing research on sleep disturbance right now. We have a study being conducted by UPenn looking at, we call it the National Sleep Study, and it's looking at the impacts of aviation noise on sleep. We also have just started a new research project on whether we can introduce noise cancellation inside a simulated bedroom to see if that helps reduce impacts on

sleep. So as this research matures, I think it's worth noting that we intend to consider whether these nighttime weightings or anything should be adjusted.

[Andrew]

I think Don also just to follow up on some of my earlier comments with regard to the consideration of supplemental metrics. These are the type of factors I think that we're looking for feedback on. This issue came up on Tuesday, we had some questions about the questions in the Federal Register Notice themselves being specifically targeted towards potentially a more scientifically literate audience and the question that I'm that's coming to mind was that folks were wondering if they don't feel that they have the scientific expertise how should they weigh in I think this kind of dovetails nicely with that as well for anyone on the session that that has similar concerns is that you like comment on these types of issues if you are considered with sleep disturbance concerned with sleep disturbance but you're not sure exactly what metric is or the best way to analyze that you know just bring forward your issue or that you'd like to have more information in regard to that. So for example, if we were to see a question like this in the docket or come in via the email this would inform us about consideration of a supplemental metric that we currently have called Leq which is similar to the DNL metric but it's allowed to be set for a certain period of time and so we can develop an Leq eight hour metric associated with night time or a 10 hour metric or what have you and analyze and give that as a good representation for sleep disturbance or if there's a concern with educational disruption you can set an Leq, my kids are in school for about seven hours a day, so you could set it for the seven hour window that you know the particular facility that may be underneath the flight path as in class or you know eight

hours what have you that that's one of the benefits about Leq is that you can kind of range the time frame that you're looking at and correlate it to a number of different disturbance type activities. Thank you, Don,

[Don]

You bet, thanks Andrew. Let's see, so Kevin, next one up is an interesting question. The ambient sound rating in this person's yard is about 56 decibels but the overhead noise from the jets flying overhead typically reaches between if they say 78 and 80 decibels. There are times when having a conversation outside with a neighbor is not possible until they wait for the aircraft to fly. Does FAA really understand how it is to live like this? There are a couple parts of that question. I think the first thing to address maybe is the difference between measurement and modeling and how we use both in in the work that we do Adam would you mind explaining the difference please

[Adam]

Sure so the first thing to think about when you when you talk about the difference between measured and modeled noises that when you measure any kind of noise whether it's at any point in your home or outside it's just a snapshot in time it's that one specific period where wherever you were measuring and due to the need to generate noise results over very large areas that really makes monitoring noise difficult and really makes noise modeling the only practical way to determine the geospatial effects accurately and reliably in the surrounding communities especially when analyzing proposals as it relates to aviation noise and there are a lot of challenges and limitations to using noise measurements for evaluating airport vicinity noise and really make it difficult to develop a nationally scope policy and I'm going to talk about a few of these

factors now. So, one of those would be first that when you measure noise non-aviation sound can have a large influence on the noise monitoring data a neighbor using lawnmower a leaf blower an ambulance going by, highway or rail noise that can be very difficult to separate from Aviation noise in some circumstances and during the post-processing of the measurements. Second long-term noise monitoring such as doing like for a whole year requires a whole bunch of maintenance on the noise monitors because they have to be calibrated and frequently recalibrated to measure the noise accurately. That's a big challenge because there's considerable costs for that and the resources that have to be dedicated to go out and maintaining those monitors and calibrating them on a frequent basis um and to ensure the same accuracy and fidelity of the data generated by noise model over a large geographic area there needs there would have to be an extremely large number of noise monitors that are required to do that depending on the airport and the area that you're interested in I mean it could be tens of thousands to get to the point and have the geographic coverage necessary to accurately um paint a picture of the aviation noise footprint in that area and I think the biggest challenge is that specifically for Aviation activity and looking at the action Federal actions that the FAA may take or for various projects, noise monitoring data is not able to analyze a what-if scenario looking into the future and you want to have a standard baseline from which to use when you're analyzing future conditions and you can't measure future noise but you can model it. So that's the primary reason that you know when we talk about the challenges with monitoring versus modeling noise modeling is one of the primary way the FAA takes that into account and the way that we do our modeling is through the Aviation Environmental Design Tool or AEDT which I'm

sure many of the folks on the webinar know but if not, it has a variety of capabilities for modeling aviation noise. It takes information about the types of aircraft that are flying in the area, where they're flying, when they're flying, how many of them there are based on real-time data based on radar flight tracks and talking with airports and otherwise that are all used as inputs to develop the predictions about the expected noise impact in specific areas I mean to evaluate future impacts which you really can't do with monitoring.

[Ryan]

Hey, Adam, I'd like to jump in here and just kind of add a little bit to that. I've attended a lot of public workshops and public meetings and so forth where this topic has come up and I know it's a pretty frustrating one for the general public out there in regards to monitoring and modeling and a lot of folks say you know why don't we just put out some monitors and start flying the planes the way you're going to fly them so that we get some real data and the challenge here is that we have the NEPA ,the National Environmental Policy Act that really is the driving force and kind limits us to say you know we really can't do something like that. It’s almost like a test run, I guess you'd say, NEPA is really just like a predictive forward-looking analysis requirement and it really is a requirement that we have to do and I understand there's you know a lot of frustration around that but as a Federal agency we have to abide by that and the best thing that we can do right now is using these models that actively and accurately predict what we think the noise is going to be and I know it's a frustrating point because everyone wants to hear it first and test it I guess in a sense before it actually gets become permanent, but there's really not an option for that and so I think that's the

option we have is this model and it's just a matter of now with this effort saying okay we if we have to model it what is the best model. If DNL is not the right model or is not calculated correctly then what is the new model that we would want to have especially with these new entrants with UAS's and Rockets and all the other things that are happening out there and with PBN, so that's kind of like where the initiative is going and I think, like I said, there's been some frustration in the public on that and this is this is our opportunity and everyone's opportunity to possibly change how we do this in the future and so I you know certainly encourage folks to submit comments and I think that Don I don't need to um Jump Ahead here but I think that the next one is about public input and how do people get involved in this and you know there's certainly a number of ways by being out here right now it just shows that there's an active interest in this we have a whole number of people here which is great I mean this is what we wanted, we wanted to have a lot of folks on and a lot of interactions and so forth so you know that that's great and these will I understand will be recorded and posted I believe in the future so there'll be some ability to look at them you know there's also just on the website if you I went out and did it myself you just you don't have to be within the FAA but if you just go on and Google noise FAA Noise Policy Review you'll get the website and there's actually a really good amount of information in there there's the we've referred to the Federal Register a number of times that's a good resource and there's a framing document. It's really great too and I encourage folks to get on there and take a look at that and just see what's out there and educate yourself because this is this is a pretty highly technical subject and sometimes it's really tough to grasp and sometimes it's easier to read it and understand it that way better, so I certainly encourage folks to

get on there and do that. There's also a lot of airport round tables and noise offices within your local airport are really good resources for maybe explaining it a little different way, they maybe even have some multimedia avenues that you can get on there and get some information. So, I guess bottom line is I think there's a number of ways folks can get involved and should get involved in. The comment period for this is going to go through the end of July, so July 31st. So really, we have about two and a half months roughly left for folks to submit comments

[Adam]

I'd like to jump in Ryan just to add a little bit too on onto the resources that are available and folks being able to participate we also do have some educational videos that are on the website that folks can view that I mean I know we have the framing paper and the FRN but some people are more visual Learners want to you know see something or a quick video and they're all very short they're only two to three minutes each broken up into 11 sub segments so you can just watch a video if you're busy and then come back to them later it's not like two hour long commitment but we have those videos there that also go through the Federal Register Notice and what we're doing in the Noise Policy Review and also just give the general background on what we're talking about here in terms of aviation noise and what is a noise metric and what is noise even so you know we have those available as a resource as well mentioned roundtables and in addition to these webinars we are working with meeting with stakeholders which include elected officials and Airport Roundtables to provide answer and information these questions I think you mentioned it but keep an eye on your roundtables agenda and if we're you know asked presenter or talk to that you know we'll

show up there and um you know be talking about the NPR there as well so just wanted to make that known and also to I'm sure this question is going to come up but you know what you know how is the public going to be able to participate when we finish this process and develop a set of recommendations and just, we plan to announce what our recommended are you know and at that time we're going to identify how the public can continue to participate and provide input and you know really the best place to just keep updated on this whole process is um the land being page for the noise policy review which is www.faa.gov/noisepolicyreview

[Ryan]

Don I know we've jumped ahead a little so far if I may go back to the last question that you offered up and one point I did want to touch on is that at the end the question said does the FAA really understand how stressful it is to live like this and you know I think that's kind of an important factor because we between the four of us on this that are on camera here tonight and the multitude of folks that are assisting us behind the scenes and all of our counterparts in the agency that we work with on a day-to-day basis, we have been in the communities in meetings for projects for many years. I personally have been doing this for 20 years. I've had the opportunity to speak to many folks, some of the folks that I recognize names on the attendees list tonight and some of the folks I recognize from Tuesday and know certainly Ryan and myself are frequently out engaging with folks and we hear this constantly, we hear stress, we hear you guys, Not only do we hear you many of us not just on this panel and in this noise policy review but across the agency live in these communities as well and we experience the same exposure, the same issues, that you guys live with. Personally, I've done it across

multiple airports across the country. I know Don personally lives within one of the relatively loud corridors for a major Metropolitan Airport, so we have a shared experience with you. One of the nuances of this issue though is that noise and the noise response is inherently subjective and the folks that we engage with and the folks that are here tonight are the ones for which this is a primary concern and we certainly do understand that and so we're trying to navigate all these nuances and we know that you know the system that we have right now does not effectively communicate to the public or inform decision makers as they go through the process and that's the entire goal of this. It became blatantly clear with the results of the Neighborhood Environmental Survey. I see a lot of questions tonight about that in the comment period and all of that has led to where we are now. It's in a serious commitment for the first time in 40 years and the FAA to reevaluate the long-standing noise policy engage with everybody that's here tonight provide the feedback listen to what you guys have to say and improve the process in a meaningful way to improve the decisions that are being made moving forward so I appreciate that, Don. Thank you

[Don]

You're very welcome thank you for saying that because that was going to bring up something similar, but we got a little bit off topic so thanks for bringing us back to that Andrew. It was worth saying so just to sort of take a second I wanted to know we're getting a variety of questions that are not related to the topic at hand our Noise Policy Review. In deference to those who are attending our webinars with an interest in the policy review we will be filtering out questions that aren't relevant to that specific topic. If you have any noise complaints that you'd like to make, as a reminder, you can make

them to our Noise Portal which is at noise.faa.gov When we see comments about a specific noise complaint and can generalize them to address a common concern regarding noise metrics or thresholds or the review we'll do our best to modify the question or respond to part of it that's related to the Noise Policy Review and I also saw a comment asking us to focus on information that was not covered in the presentation but we're seeing comments or questions come back through asking for more information about what we shared in the presentation so we're doing our best to sort of balance and address everything that we can as we go through as we go through the questions that we received Okay Ryan, I have one for you here How do we get a meeting with an FAA representative regarding noise issues in any given area around the country

[Ryan]

So yeah, that's a good question. I know that there's a lot of interest in sitting down with the FAA and having discussions I know the FAA participates in a lot of different um I guess I call them Stakeholder Groups or Roundtable Groups but there's also the FAA’s Community Engagement Officer and we have them located throughout the areas we have nine different regions and they're all placed out there as kind of the eyes and ears of the community and really they work closely with the round tables themselves they work closely with our Regional Office and then also the Noise Officers that are in the in the in the airports that are in the vicinity. And I know from an Environmental Specialist standpoint we've gotten some uh really good information from them as far as where communities are mostly concerned about some of the noises and in some areas, they've said, hey is there anything we can do in these particular areas

that have a big concern for noise and we've gone in there and analyzed it and considered how we can change things. So, you know those Community Engagement Officers are really good at providing us valuable information in those specific areas and like I said they're scattered across the NAS and across the U.S and are good resources. But I do want to want to say that the Round Table, it's usually called a Noise Roundtable or a Community Roundtable that's established in the geographic area has been the most one of the best effective ways to do that and to get information about what the AFAA is doing and then also to provide input to the FAA. So, I'll certainly say that that's one of the best conduits to get information to us.

[Don]

Thanks Ryan. It looks like commenters have been asking us to consider publishing the Q&A from I guess today or on Tuesday or Future Q&As in text format because they don't have time to search through it two hours of video to find the answer to their question, which I think is a completely reasonable ask for us and we will be doing that. If the transcript isn't up from Tuesdays yet it will be available at faa.gov/noisepolicyreview.com very soon and we'll turn around the transcript for this and our subsequent webinars as soon as we can.

Let's see next question. What is the difference between the term communities in the vicinity of airports versus overflight communities given both could be outside the DNL 65 Contour? Anyone want to take that?

[Ryan]

I could jump in really quick and if anyone wants to add on to it that's that'd be great. So, you know as far as over flight communities, it's a term that we use as far as

they're not usually within the vicinity of the airport or within the 65 DNL Contour. A lot of folks are very familiar with the 65 which has been usually related right around the airport Community itself like a lot of the 65s are on Airport property so when we refer to air or overflight communities, those are the ones that are farther away, and I know that those are some of the challenging ones because they're in the lower DNL levels. They might be in the 50s or in even in the 40s and we've worked with communities where they have some very specific, it could be that they're on a mountainous terrain or they the Topography is a little bit different farther away where the overflight communities really have kind of some unique characteristics that we've had to look at and address some of these issues and I think we have some good examples of some areas that we've accomplished that so with this initiative we're looking at the DNL and saying is the DNL the right metric for addressing those communities that are farther away or as we call them now overflight communities in the lower DNL levels and does the DNL as a metric adequately address the impacts that those communities in those farther away locations are experiencing. So that's really where this this initiative kind of ties into that overflight community definition.

[Andrew]

I can add on to that Ryan if you don't mind. I think one of the other things is to tie back to the presentation that Don narrated at the top of the session. A slide was shown that gave DNL Contours for Boston Logan and then overlaid the arrival and departure corridors and there were a number of blue dots associated with complaints and one of the things that we've realized, especially through the implementation of Next-Gen and Precision-Based Navigation (PBN) and as these procedures come forward, is that the

effects that communities are experiencing from these procedures are being experienced much farther afield than what our current policy considers and certainly seeing how those complaints have grown at farther areas, that's kind of our attempt to capture those concerns, those complaints into a noise policy analysis to develop methods for analyzing those changes, disclosing those changes in forming communities underneath those changes and determining how those would influence future decisions moving forward so thank you .

[Don]

Adam, you look like you wanted to say something too did you want to jump in?

[Adam]

Yeah, I just wanted to jump into and say that we're not just looking at overflight communities though we're not losing sight of the communities that are right near the airport or closer in, so I mean in this policy review we were considering both, what don't want to make it seem like we're just focused on overflight communities. I mean that is a very big focus of this too, but we do acknowledge that there are some communities right around airports that also have concerns as well and we want to make sure that that they're addressed also.

[Don

Thank you all. I have a question about curfews. Someone was curious if a curfew was implemented between 10 PM and 7 AM, is it the airport that decides that or is it the FAA? This person says they're sure one will say there's a curfew but it's not getting abided by or followed. Andrew, do you want to answer that question?

[Andrew]

Sure. So, this seems like a straightforward question, but it's actually very complex and it involves a lot of different factors that we need to consider. So, I want to say first and foremost the FAA does not implement curfews the FAA does not set flight schedules. Since the airline industry was deregulated in 1978 the FAA has not engaged in any scheduling of aircraft Nationwide so I know there's a lot of discussion about curfews, quote nighttime closures there's these are a lot of terms that that we've heard and though they are true in certain circumstances, a lot of those provisions, if they're currently there, would have to have been enacted prior to 1990 under the Airport Noise and Capacity Act, which is when things like nighttime closures were removed from airport decision making Authority and were brought under what we call Part 161 and that's because that's where I mentioned 150 before that's where this consideration of requests falls under our Federal Regulations. So, I want to say that there are certain airports that are considered to be closed or have curfews that actually don't go back that far. They may be voluntary schedule arrangements that an airport Sponsor or Operator, which is the entity that either owns or operates or manages the airport in and of itself, negotiates with their users for example a common term of phrase in in the area I live in New York is LaGuardia has a curfew LaGuardia closes at night that is a voluntary schedule agreement that has been negotiated between the Port Authority in New York and New Jersey as the operator of LaGuardia with all of the users and it has been there for a long time. But it is not a closure and it is not a curfew per se in that if and if an arrival is late they will take it if they need to schedule an early departure they can allow it they are required to do that as a recipient of federal funding they have to maintain the Airfield open in operations for any user so any airport that receives Federal funding

under the airport Improvement program has to meet that requirement so this is somewhat challenging because again the FAA doesn't schedule this, it's on the airport sponsor. They would have to do it in a way that doesn't violate their Grant assurances as a recipient of federal funding and it would have to involve all of the users of the airport to come into an agreement with this the only way that this process would be mandated is if an airport seeks to impose it upon their operators without their voluntary agreement and that would have to be considered as an access restriction under 14 CFR R161 and that process is very involved it requires actually that an airport do a noise compatibility planning study under Part 151st to demonstrate that the airport sponsor has done any and everything that it can to do to minimize mitigate and reduce the noise exposure and prevent future non-compatible land use within their noise Contour before they can even engage on that process. So, I just wanted to kind of give some framework to that in and of itself again, the FAA does not establish curfews airport. Sponsors can negotiate voluntary schedule agreements with their users but seeking to impose it would trigger an access restriction analysis under 161. So, thank you

[Don]

Thank you, Andrew. I think I learned a couple things in those responses that was great next question. What is FAA's timeline to share recommended policy changes after the comment period ends. That's a good question. It's a tough one to answer with a lot of detail. We will read and review all input received on the docket through this process and at this point we don't know how much input we're going to receive I think last I looked yesterday we had a little bit more than 100 comments already posted we're going to go through those comments we get as quickly as we can to synthesize them

and use that synthesis to develop recommendations and our goal would be to come up with recommendations and share them within the next year. But we really can't commit to any time frame because we don't know how much input we're going to receive and how long it's going to take us to go through all of that info because we do value all of the input we get and we want to make sure that it's all given due consideration we will continue to share updates about the status of our work after the comment period ends and you know we've mentioned before you can sign up for updates or check our website at faa.gov/noisepolicyreview.com and we'll share information as we can about the status of the review post comment period as much as we can throughout.
[Don]

So, let's see next question. Adam this one might be a good one for you. Could we say what parts of the NES, or the results or data have been analyzed in detail?
[Adam]

That's a great question. You know, really, we're considering all parts of the NES or the Neighborhood Environmental Survey in this this policy review and not just the NES. But focusing on the NES that includes not only the main results include the new dose response curve for DNL but also looking at the NES had some additional areas that they looked at supplemental analyzes that are included in the report. But they did look at some additional metrics such as Number Above (NA) 50. They did an analysis based on demographics, they also looked at climate considerations and they looked at some other things as well, so those are just three that I'm highlighting here but there's other parts of the analysis in the NES that were considering those as part of the policy review and really we are continuing to look for ways to leverage the data set from the

NES to you know identify also additional research needs and based on the feedback we receive during this policy review you know in the request for comments and what kind of comments we get we may decide to design new studies which could also include additional analysis of the NES data sets with an eye toward better understanding the information and looking at maybe other metrics and thresholds that the commenter suggest and see you know if there is anything there with the NES. It's a very robust set and it's a huge amount of data and certainly can look at mining it for other items and really looking for feedback on those items that that people maybe would want to see us look at some more and we're definitely open to looking at that.

[Don]

Thanks Adam. I think it's worth noting we're going to do that as quickly as possible. We've been doing some additional work with the data already looking at metrics like Number Above (NA) and Time Above (TA) because we think those are those are things that folks are interested in us having a good understanding about as we consider which way to go with the policy review and any recommendations so thank you for that answer.

Let's see next question what is the reasoning behind using a multi-hour day metric I guess maybe why are we considering the use of a multi-hour a day metric?

[Andrew]

Thank you, Don, so I think there's two aspects to this. Why do we currently use a multi-hour day metric and then why would we consider using it in the future understanding the current concerns that that we're here to discuss and so if I could just give a little bit of background about DNL and why we use it. So, the day night average

sound level. The way we actually calculate that is we look and we build a operational data set for the entire year we look at what the forecast activity is across the year, what components of the aircraft Fleet or Fleet mix we'll be using, that we build tracks using actual radar data to demonstrate where they fly not exactly where the procedures indicate that they should fly and we load all of that into the model and we use what's called an average annual day. And the reason we do that is because as many of you guys know that live near airports, the operation is not the same every day, you may have an airport that has one runway and some runways and some days you'll be getting departure traffic and other days you'll be getting arrival traffic and those have different noise profiles in in an operation. You may live near a multi-runway airport and you may have a primary and a secondary runway and some days the aircraft are using the primary runway and other days they're using the secondary runway and if you live off the primary runway on those days when they're using the secondary runway you'll notice much more reduced activity in your area And so the reason that we calculate all of this out using that average annual day is it gives a representation of the entirety of this us the scenarios experienced by the community surrounding an airport over a given year. If we were to analyze a scenario looking at only one runway on a multi-runway airport, you really would not get the full representation of what the other communities that experience noise from other runways get in terms of noise exposure so the multi-hour slash multi-day metric gives that representative sample and then that based on past studies prior to Neighborhood Environmental Survey also correlated well with neighborhood and community annoyance. Questions about whether or not annoyance aside in the noise policy review we are asking for input on that as well as well as other

factors that we should correlate metrics. But back to the question at hand. The correlation to community annoyance gives a good representation for comparative purposes for us to make decisions about the effects of a project and we can show based on the multi-hour multi-day metric such as DNL, how things change across the entire the key of the communities that surround the airport. So, another example of this would be Leq8 hour I mentioned before. That is a good metric for multi-hour exposure for like an educational facility or some other facility such as a library a daycare facility some other non-compatible use within the exposed area or those hours where it's operational to get a very specific understanding of the impacts at that site rather than a single event metric which really only such as like Lmax. I've seen a lot of comments about Lmax. Lmax is really just one data point and it refers to it's the maximum level of noise experienced and that's just one data point it could be one operation it will vary depending on where you are relative to the flight depending and it may be different based on different flights experience and so it doesn't really help give us a robust decision point it's good information for those that experience it to have um but it doesn't have necessarily a lot of utility in and of itself as a standalone metric. I don't know if anyone else wants to offer some thoughts on that, but that that's kind of my perspective on it Don. So, thank you Don

[Don]

Adam, maybe as you add I can ask you to just explain one thing I heard Andrew say, that maybe not everyone followed and he was talking about that you know if you have one runway some days you might receive departures and some days someone

might receive arrivals could you explain why the flow of an operation at airport changes in addition to whatever you want to add please?

[Adam}

Sure, I mean the very reason is due to the weather in various weather conditions and it's primarily based on wind direction but sometimes you know it can be based on some other factors too, like if there's two airports really close together, it might be based on how they're you know the two airports interact and because of that they need to have the traffic flow in a certain way thinking like specifically like you know out in the Bay Area in California y with you have San Francisco and Oakland and San Jose and Palo Alto and San Carlos and all of these airports that are real close together and their kind of flows are dependent on one another so their wind is a big part of that but sometimes it also factors in like the New York Metro airports also are very interdependent on each other with Teterboro, White Plains. Guardia, JFK Newark, Long Island MacArthur and all the satellite smaller airports around it makes it a really complex environment and sometimes just even though the wind may be favoring one thing they may operate slightly different or in different flows just because of the interdependencies among one another um so that you know but the primary reason is generally the wind direction generally aircraft want to take off into the win um you know for performance reasons and safety reasons so to answer that question and then I just wanted to add in on terms of Lmax you know as Andrew node and Lmax really isn't super valuable you know in some cases just because it's one single data point it's the maximum sound level but where Lmax is valuable is using it with Number Above (NA) or Time Above (TA) because those are based on that that noise level that you're setting which is based on

an Lmax so using Lmax it's they're used it's useful when you're using it to count something or you know measure the duration or something so the number of times an Lmax of like 60 or 60 dBs exceeded is one thing that could be useful because you're just counting how many times did that threshold get exceeded and it's not a thresholder it's a level so to speak that you're setting and then Time Above (TA) it's the duration same concept you're not taking the count it's just it's the amount of time above that that level so Lmax in and of itself by itself may not be that useful in some cases but it is useful really when you combine it to count or measure the duration of time um you know above that that level that you're setting whatever it may be

[Don]

Let's see, Adam maybe this one you. Where can we find FAA's current best assessment of health effects on environmental noise?

[Adam]

Yeah, that's a really good question. There's a ton of health related research out there that's available and there's constantly new studies that are coming out on a regularly frequent basis and that's why as part of this policy review we are considering the research on health impacts and it is that especially where it's statistically significant and shows a correlation with health and adverse Health impacts so we are going to consider these studies and they are going to form our development of our nationally scope policies really in terms of what to find what data we're considering, I mentioned this earlier in the webinar but we have there's a bibliography in the framing paper that talks about the various different studies that we're looking at and that isn't just Health impacts but also economics and annoyance as well and that includes not only domestic

studies we are looking at International Studies as well. We're not just focus focused on the studies that are being done you know within the United States. We are looking at international research also. But really we would invite folks in and it's in our request for comments specifically it is one of the questions in the register notice we are seeking input from the public on what we should be considering and invite folks to look at that bibliography and if they think that there's something missing that we should really be looking at in there as a study that should be considered please feel free to add that to your comments and that's something that we're going to consider as part of the policy if you really do want to emphasize that bibliography is really what we're we've looked at in mind so far from the research but there's a ton of studies out there and just because there isn't something in there doesn't mean that we aren't going to consider. It just means that we kind of need to go out and hunt for it some more and there's constantly new studies that are coming out too so really invite comments on what folks think we should be looking at or if we're missing something there to add it and submit a comment. Thanks

[Don]

Adam, I think it's worth pointing out too we have our ASCENT website ascent.aerospace.com. Here we post the research that's being done through our Center of Excellence as well and as you were speaking, I saw a comment or question pop up asking where the bibliography is located. I think it's located inside the companion paper, is that right?

[Adam]

Yes, it's I think it's appendix A for the framing paper, but it is definitely in the framing paper near more toward the end.

[Don]

Thanks Adam. All right next question. What is FAA doing to make balanced and independent analysis, I guess, to make a balance and independent analysis that's not biased towards industry and then there was a note added making comments publicly available is not independent analysis. Ryan, do you want to take that one

[Ryan]

Sure, yeah good question and I know I get this asked of us a lot when we do airspace changes and analysis, and the question really is why are you doing this? Are you doing this for the airline so that you can save them fuel and help their bottom line? What we do as Environmental Specialists on these decisions is a rigorous and prescriptive process of abiding by the National Environmental Policy Act (NEPA) and that act is then put into our order, so we have these rules. When you hear an order it's basically a rule that FAA has to abide by and it's our guidance for how we meet the regulations and we have to consider a whole number of impacts related to the reasonable alternatives and so I know a lot of folks out there look at look up and say well there's so much other alternatives out there that you should be putting the planes over here or in a different location and those are things that we always consider when we have public comments, but a lot of times when you see those areas it may be a military airspace or there may be separation requirements where we just can't get airplanes that close to each other. So, the process is defined in our 1050, we have to go through the impact categories noise like noise obviously is our big topic tonight. but

there's a whole lot of other ones. We look at historical properties we have to look at National Parks and Wildlife Refuges, we have to look at Environmental justice Communities, we have to look at air quality, we have to look at the cumulative impacts, meaning if you have other things that are happening in the area maybe there's some runway projects or there's another airspace project that's happening close by. Those are all the considerations that we have to analyze and address in our environmental reviews and then in the end all that's put together and a decision maker in the FAA decides what the course of action is, but I'll just tell you that even though the perception might be that the industry is driving the process, it really is not, it's a national policy that we have to abide by that we're following through the entire process. The public is the stakeholder, the industry is a stakeholder, the airport is a stakeholder, there's a lot of different stakeholders in the process so hope that answered the question

[Don]

Thank you. Andrew, did you want to add anything?

[Andrew]

Yeah, if I could. So I think Ryan discussed from his group's perspective the Air Traffic Organization and I work in the Airports Organization and our two organizations do work together but you know first and foremost our primary agency mission is to ensure the safety of the of the national airspace system so that's always going to be our first criteria in terms of reviewing any project either in Ryan's group or my group to ensure that we're not doing anything to abrogate the safe and movement of aircraft either on the ground or through the airspace so in that context then as Ryan indicated we do consider subject to our order and our order incorporates the requirements of a

multitude of what we term special purpose laws. Ryan talked about all these categories, but we do review all of these projects in accordance with the provisions of the Clean Air Act, the Clean Water Act, The Endangered Species Act and all of the governing laws and executive orders, policies, guidance that that govern all of the resource categories that we consider and I do want to stress that it is very rare where a sponsor's initial proposal at least in airports is ultimately decided as the outcome of an environmental review process. They are often informed during the process and have to update, modify, design, adjust procedures many other things based on the outcomes and the findings associated with the project furtherance any impacts. Significant impacts in an environmental assessment context require mitigation to stay in an environmental assessment but even impacts in and of themselves are often mitigated and those mitigation components offset or benefit in lieu entered in the initial proposal, and we do a lot to push project proponents to incorporate those aspects into the overall project implementation. Certainly, under airports we're a little bit different in that we support a federal funding program, I mentioned the Airport Improvement Program before in terms of the grant assurance requirements for operations when I was discussing curfews earlier so our airport sponsors are engaged in the development of the Environmental Assessments in and of themselves. However, they are subject to rigorous oversight by airports Environmental Protection Specialists. We do review them we will not accept them unless we find them satisfactory and in accordance with our orders and meeting the requirements of all those special purpose laws and we will not approve projects until they actually do the things that we are asking them to do. I have a multitude of examples, but I'm trying to keep it generic for the purposes of this National discussion

this evening, but this oversight requirement is in the actual the Council on Environmental Quality Regulations for implementing the National Environmental Policy Act. They require national environmental reviews under the National Environmental Policy Act be conducted under the supervision of the agency. We are that agency that provides a supervision. So, thank you Don.

[Don]

You're welcome thank you, I hope you don't mind, I'm going to ask you another question Andrew, will the Noise Policy Review include the short-term forecast say five to ten years found in Part 150 or are we just looking at metrics?

[Andrew]

So Don, thank you and I think this is an opportunity to kind of broaden the question a little bit is that the goal of this process is to focus on the metrics and the metrics considered so certainly we're looking for input in the Part 150 context and so for those of you unfamiliar part 150, it is the regulation that governs noise land use compatibility and how we analyze that and via that process we're required to develop what's called not us it's a voluntary process that airport sponsors undertake and in that process the airport sponsors are required to develop what's known as a noise exposure map and that is a depiction of the noise from the 65 70 and 75 DB Contours for a current year and roughly five at a minimum five years out and that's I think what the questioner is asking but then once that

noise exposure map is set the airport sponsor will engage on a noise compatibility program wherein they will recommend measures subject to our approval to minimize noise exposure, mitigate noise exposure and then prevent future non-compatible land

use from coming in and provided that the measures that they consider or recommend meet the requirements established in Part 150 we will we can approve those measures and then an airport sponsor can go out to implement those measures subject to additional approvals and so on so for the purposes of noise policy we'll be looking at the thresholds established for noise land use compatibility which would be those land uses depicted within the Contours on the noise exposure map input on that is you know certainly input that we're hoping to generate via this process and then the metric itself that that's being used DNL and then 65 the level certainly that's the goal of this process that being said we're not intending to revisit other elements of the Part 150 process as a whole forecast measures for recommendation mitigation considerations. However, certainly to the degree that input is offered on the procedural requirements of Part 150, I think those could certainly inform separate efforts that may be taken at a later date should we go through a rulemaking process to update the regulations. So, thank you Don

Thanks Andrew. Okay next question how are we addressing equity and environmental justice in this policy review, I could take that one on and thank you for the question. This is an important topic and I think there's three things that I can highlight that we're doing to ensure that we're considering equity and environmental justice in our review. The first is or our transparency. We have been doing everything that we can to communicate this complex technical topic in everyday language. We took a lot of care in the way that we wrote the Federal Register Notice in the framing paper and the questions that we asked, to be accessible and understandable to everyone in sort of a plain language format. We're focused on inclusivity trying to make the information as

accessible and available to anyone who wishes to access it. We've reached out to, we've shared everything online, we've created educational materials, we've reached out to various stakeholders and asked them to distribute information within communities so that everyone that's interested is aware of the process and how they can participate in it. And then the third is empowerment. We're providing many opportunities for the public our stakeholders to interact with us in a variety of ways to form their own views and make suggestions for improvements or ways that we can enhance or change our policy we've been engaging with communities early in our process before we've made any decisions and that's an important emphasis that I can say we've not made any decisions yet and that's why we're engaging with folks now. We feel that it's important to engage age with folks at this point before we've made a decision because that way the input that we're getting is can influence where we go as opposed to the input having to convince us that the proposal is not the right answer I think it's more open, it's more transparent, it's more of an opportunity for folks to influence an outcome if we if we hadn't made a decision yet. And that's the best way for us to jointly understand where we need to go with the noise policy and how people are affected. We've, as I mentioned, we're also ensuring that our materials are distributed broadly and that we've scheduled these webinars at four different days, four different times so that they're available and people can participate when their schedule allows. We tried to do afternoon and evening times across the country and doing them on different days over the period of two weeks to make sure that we gave everyone the best opportunity they could to participate but even if someone can't participate um all of the webinars are recorded and all of them are going to be available on our website for folks to watch

asynchronously and if they have some technical questions that they want to ask us they can email us uh at noise policyreview@faa.gov and we'll do our best to answer any technical questions that we get We've developed the materials to make the Federal Register notice as accessible as possible for folks without experience with policy or regulatory development. That's why we created the framing paper because it helps sort of as a companion to the notice it provides additional context and explains sort of the things that we would suggest or would think that people would want to know and consider is the way they engage with the notice and develop their responses, we are not asking for folks to respond to every question. We're open to any kind of input that we can receive that anyone wants to provide to us, and we've also recorded a series of 11 videos posted to our website. As Adam mentioned, there are just a couple minutes long and they dig into each of the different topics You might recognize Adam as the person the voice behind all those videos he did all the recording and they really were meant to just provide an opportunity for us to have a little bit deeper of an understanding of the different topics that we're talking about because we all understand noise is technical it's a complex topic and the math isn't exactly what everyone's used to, using and the metrics may not be familiar to folks, so we really especially the new ones that we're talking about so we wanted to do everything we could to build everyone's understanding so they could have a common place to engage with us on this uh on this topic. Andrew did you want to add something?

[Andrew]

Yeah, if I could Don, and I think all those avenues that Don indicated are certainly the things that that we considered, but certainly when it comes to engagement

and especially with regard to environmental justice communities and those other disenfranchised communities, we're open to any additional suggestions that may be offered and so I think we would encourage if you do have comments in that regard or suggestions to submit via email. We've done what we can to engage with our counterparts and stakeholders to spread the word. If there are additional organizations, individuals you can think of or additional techniques, we'd certainly be more than willing to consider those so I would encourage folks that have additional suggestions, we're always looking to improve the way that we engage and I did want to kind of transition to specifically with regard to the you now the NPR, itself the metrics that we're considering What we currently term supplemental metrics, but you know again we've kind of said some of these supplemental metrics are, you know more easily understood than the cumulative metrics that we use such as DNL. We would look to use some of those supplemental metrics to again facilitate that understanding especially in this framework for not just minority or disadvantaged communities or low-income communities under EJ, but for all communities. And one other metric that I don't think we've really talked about that that may facilitate This is called AIE, it's the Average Individual Exposure and what that does is it essentially takes a Number Above (NA) metric that we talked about where you can track for a certain period of time and count the number of events above a certain threshold. And we can set that threshold at different levels to account for different levels of exposure as we're so inclined and averages it out across a given population area to give what an individual may experience on an average day in terms of just number of events above say 60 or 65 or 70 or what and that's something that I think really facilitates an understanding, facilitates the engagement, facilitates the

communication again with all communities Not just Environmental Justice Communities but certainly for those that need kind of more quicker concise better understanding those are the input on those kinds of metrics certainly would be helpful for us in terms of the solicitation from the community as we develop further in the noise policy review effort. Thank you, Don

[Don]

Thanks Andrew. Adam did you want to add something?

[Adam]

Yeah, I just wanted to add one thing briefly and we've been talking about it a lot tonight and it's in the framing paper, the definitions of these, but I did want to highlight when we're talking about what is a Companion Metric, a Supplemental Metric, or an Alternative Metric. What do those terms mean when we're talking about them, so I thought it'd be good to just touch on that briefly. When we're talking about a Supplemental Metric, what that means is it's a noise metric that we're using for transparency purposes in conjunction with a different decision-making metric. So, like, for example, right now, that would be DNL and then maybe you would use Number Above (NA) for something to supplement it for transparency purposes to better speak to potential noise exposure. But our agency's decision making wouldn't be based on that additional metric that's being used. Then you have concept of a Companion Metric, which is where you have two metrics that are used together, you could have more than two that are used for decision making purposes and then an Alternative Metric where basically that'd be you know a metric that maybe would replace you know essentially in use for decision making purpose. So again, there's these are defined in the framing

paper in the FRN. But I thought it may be good to just hit on that briefly just because I know we've talked about it a lot tonight and there may be folks that haven't done that and are wondering well what is what is that what is a supplemental metric what does that mean so that was good thank you very much

[Don]

Adam, I think that was that was worth spending a minute on. Let’s see, next question, if this is a transparent process why do you not share the questions that have been not that have not been asked and answered it's completely understood some of those questions might need to be edited out it seems reasonable that the questions be disclosed. So, we're not publishing the questions and comments we received in this live setting, we believe that it's in the Public's interest for us to devote the time and attention of our staff that are that are processing the questions to and feeding them to us to answering relevant questions rather than screening out unrelated or inappropriate content. One thing we are considering doing for our website or our web pages is the creation of a frequently asked questions section. We're not going to be able to answer every question received. We won't be able to address everything that we get on that, but we do and are looking at, whether we could sort of create that information and as a resource for people that that are interested in learning more.

Next question, Adam, the complaint system does not recognize that when sleepers are disturbed and awakened, they may not be able to identify what woke them up we need a laboratory sleep study to confirm noise levels that awaken humans in different sleep stages. Metrics should reflect this understanding. I think Adam that'd be a good one for you.

[Adam]

And it's a great question and ties directly to some research we have ongoing yeah it is, and we currently have some research ongoing through our National Sleep Study that's being led by the University of Pennsylvania and the study is scheduled to be completed in 2025. Even though it's ongoing, we fully expect to consider this research when it's completed. That may influence further future changes to our policy in terms of looking at you know how we incorporate weighting in a metrics or what metrics we use to account for the sleep disturbance and the studies broad looking across the entire country variety of subjects and it's going to be very comprehensive. But in the meantime I think we should clarify that our existing primary metric which is DNL, which we've talked quite a bit about it, does account for nighttime noise and sleep disturbance because it does weight those events that occur during the night time or those nighttime flights between 10 PM and 7 AM the following morning you know it's 10 times the value of the daytime operation so one time at night is equivalent to 10 during the day ,but that being said, that doesn't mean that you know that that's the best way to account for that and that's why we're engaging in this National Sleep Study to see if perhaps we should update it and how we should update it and if we need to look at other metrics or weighting. The study will help to inform our thinking.

[Don]

Ryan, I think this one would be best for you are we going to address how low aircraft fly over people's homes.

[Ryan]

Okay yeah good question so um you know this initiative that we're on tonight and we've been we'll be until the end of Jan or July is really talking about the policy changes for the tools and the metrics and how we provide the information for upcoming projects so I understand there is a lot of interest on past projects and what's happening to folks today and what they're experiencing and I totally understand that, but it you know for our discussions and our change that we're trying to get accomplished here is there a better way that the FAA can communicate to that um to that change so that the communities and the public understands it better because right now we have this significance level and truthfully I don't see a whole lot of projects that jump to that significant level of impact and so is there something else is there a better tool maybe it's not DNL maybe it's another metric but what we're trying to explore here is really what is the um what is the best metric we can use and how is the best way to communicate that so that folks don't get surprised there's not a I never knew about this but have the opportunity to provide input now so that we can get our the right tools and the right process put together so that we can communicate that in an effective way and you know for like I said the 65 DNL the significance levels you have to have a 1.5 dB and then below that there's the reportable levels well there's maybe some opportunities for some disclosure purposes you know at those lower levels at the 45 or 50 DB level. Is that a is that not an opportunity for some enhancements of the noise model or is there some further disclosure purposes that we could do from an Agency standpoint to be able to provide that so that communities really understand what the anticipated impacts are and that kind of goes back to that overflight community of discussion we had before where you know DNL 65 it's really close to the airport but these complaints are coming from

the 50 and the farther out area and that's really where we want to have some improvements in this process and say okay if this isn't working then let's try to fix this and get a better product or a better disclosure system so that the public is engaged, educated and understands what the anticipated changes are going to be

[Don]

Thank you, Ryan. I think it's worth noting just for everyone to know you know, we're doing our best, we've received over 200 questions this evening so far. We're doing the best we can to take questions that might be very location specific or about a project and generalize them up to sort of be relevant to the topic at hand or noise policy review, I just wanted to sort of point that out to everyone that we're we've received a lot of questions and appreciate that level of engagement and we're doing the best we can to get through as many as possible and we're getting close to our end time I probably am going to ask our panelists and folks supporting us if we could go a few minutes past just to make sure we get through as many questions as we can, but going back up

Let's see, so the next question I think that we can cover is one about why Next-Gen was implemented without I guess before we did this noise before Noise Policy Review and there seems to be a question about whether we did noise analysis during the implementation of Next-Gen there's a comment about it causing aircraft to fly lower on a concentrated flight path and sensitive residential areas are drastically affected this person said it's destroying their lives I think which is which is an unfortunate. I mean certainly is a bad thing for people to be experiencing that that kind of impact I can I can handle the first part of the question and then maybe Ryan can answer the second you know we started the Neighborhood Environmental Survey process, I think it was back

around 2010, and it took it took a little while to do the research and then it took a little while to get the information published and we've been sort of taking in the feedback we've received and trying to move through as quickly as we can but this is this is one of those things that just takes a little bit of time it's a process that's worth taking time on because it's revising or looking or reviewing policy that's been around for 40 years so we want to make sure that we do it right, that we provide everyone an opportunity to provide input so that's the first part of the question Ryan do you have anything you can add about the Next Gen

[Ryan]

Yeah so Next-Gen has been rolled out like probably over the last 10 years or so and certainly one of the biggest issues that I hear about consistently is the is the concentration of paths of the aircraft as opposed to dispersion and that certainly is as I see it just from personally it would be probably fairly annoying to have an aircraft fly over your house on a consistent basis where you only used to have one every so often, and so you know I kind of get, that I mean that that seems like it would be a reasonable and maybe you know this is where the folks out there would be able to chime in and provide us some really good input on okay so if we don't have if DNL is not necessarily maybe the best for that maybe there's another two out there and we want to hear if concentration is a big issue, then we'll look at what tools are out there that are really a better tool I'll go back to say y the Next Gen process and the environmental reviews were done and I I've mentioned before about the National Environmental Policy Act and you know as far as our areas go, we did conduct an environmental analysis for those big large Metroplex NextGen projects and we did Issue a draft and received numerous

comments on that and so the environmental process was conducted according to order and was completed so you know this is again an opportunity and I'll have to say Don you know the comments you mentioned we're getting a lot of comments and I've been seeing them pop up here and I think they're really good comments I think we're really getting some quality information from folks out there that is really going to help us in this process so I commend the folks that are doing that and providing good comments and uh I encourage them to continue on because this is all helpful in our process

[Don]

Thanks Ryan, Adam did you want anything

[Adam]

Yeah I just wanted to add one small piece and that is that you know one of the things that this policy review it's looking at metrics and thresholds and you know one of the things is that we're looking at and I mentioned this before talking about decision making metrics right you know and define kind of what those different types of things were I mean one of the things that is part of this process is looking at maybe other decision making metrics that we use and thresholds in conjunction with that which you know when we do future environmental reviews for different types of actions which could include PBN or otherwise that may result in different decisions from the agency depending on what those are and depending on what the alternatives are that are available and the input you know we get from the public is part of that process so just wanted to make it clear that we are looking at not just looking at additional metrics for transparency and communication purposes but you know those would play into potentially if we change significance thresholds and in the metrics and how we use them

together in a system that could you know potentially result in in different outcomes for different projects in the future depending on what the alternatives are and what the project is and just what what's being considered so I just wanted to mention that that it's not just for transparency potentially and we're looking for feedback from folks on maybe that is the direction people think we should go.

[Don]

Thanks Adam, Andrew did you want to add anything

[Andrew]

Yeah, Adam touched on it briefly but there were a couple things I wanted to touch on one the change to significance threshold certainly could open up new areas to consideration for mitigation should significant impacts be found at a new lower significance threshold or you know different types of mitigation may be developed and considered to address those things but one other thing I did want to talk about is the Noise Policy Review in and of itself is trying to accomplish all of those things but in in terms of what's being done historically on an individual noise basis the FAA kind of aligns with the International Civil Aviation Organization (ICAO) standards for noise for aircraft on a given basis and right now where we have what are called Stage three, Stage four, and Stage five aircraft that are operating in the airspace so. The higher the number, the quieter the aircraft is, in order to get certificated and after 2015 we promulgated in accordance with the International Civil Aviation Organization (ICAO) standards for stage five so any new aircraft that enters the fleet following, I want to say 2018 or 2019, has to meet the more stringent noise certification standard and we've already, based on acts of Congress, phased out Stage one and Stage two which are the

original generation of jets the louder jets. So in terms of individual source noise, that's kind of regulated via our certification process but the issue that we're facing, and Don touched on, in the initial presentation is that our ability to reduce noise at an individual source is now being overtaken by the frequency with which the operation is happening and so that's kind of where we are now in terms of pivoting to address the new the new paradigm within the noise exposure environment and so that's why we're really kind of focusing on these metrics trying to inform the decisions moving forward based on consideration of those metrics as well. So, thank you Don

[Don]

You're welcome, thank you Andrew and just one minor clarification about the Stage five, what you said is largely correct. The thing I wanted to clarify is that aircraft new types of aircraft that get new type certificates are the ones that have to meet Stage five and those are those are the ones as they're introducing the fleet are going to meet those standards.

So next, let's see next question can be for Adam. We've seen the comments the studies are showing ever increasing negative Health and Welfare effects associated with aircraft noise commensurate with the upward shift I guess between the Schultz curve and the Neighborhood Environmental Survey the national curve. So, looking at annoyance will this Noise Policy Review take that information into consideration and if so how

[Adam]

Yeah and it brings up a really good point and that is that you know the NES did show that the public perception regarding aircraft noise has changed and the Schultz

curve was developed and the NES certainly did show that and through showing the percentage of people that are highly annoyed by aircraft noise increasing, not only just that some of the noise levels, but all the noise levels that we're studied and as I noted before we are you know we're looking at the NES and looking at potentially mining that for additional data sets and doing additional analysis on that which includes the National Curve that was developed but also the other supplemental analyzes that were done in the NES and we may do ones in addition to that as well. But we are and as noted before considering adverse health effects associated with noise exposure and you know as we consider that we expect to explain how it's considered as part of our next Federal Register Notice, you know which would communicate the potential recommendations that we may have for changing our policy and some of the ways we may consider that is looking at thresholds that are in these studies in the associated health effects and that may guide our decision on how we set a threshold or you know metrics they use to evaluate different Health impacts and economic impacts and how that may guide us also in in what metrics and thresholds we want to use so it's kind of premature to say exactly how we're going to use these studies necessarily and consider them, I mean we are going to consider them, but there's a lot of breath too and how these studies evaluate noise and time periods and metrics and thresholds that were used and even the groups of people that were studied in them so it's a little too premature to say but we are going to consider them in the review and again we to talk about which studies we've looked at. They're in the bibliography of research and framing paper. And I would like to also just remind folks that we do have two really Best in Class studies that are ongoing now regarding Aviation noise and potential Health impacts one of those is the National

Sleep Study that we've already kind of talked about here tonight, so I'm not going to really dwell back on that again, but the University of Pennsylvania is working that study in that we have another study that's ongoing on cardiovascular health and not only just cardiovascular health but other research you know areas in terms of health looking at other areas like looking at adiposity like being overweight for example and health impacts. There also as a sleep component, they're also going to look at things like diabetes but that's a study that's being led through Boston University and includes also Harvard and their schools public health and they're lead that research team is looking into these health effects across um you know initially they looked at the nurse's health study which is a group of you know participants that were there but they're looking at all these other different bodies and research groups now are cohorts so to speak people you know and that research is ongoing and we don't have all the findings from that at this time because it's still going on, but we do intend to use those research findings as we go through this policy review as well and are actively doing research in these areas in addition to the other research that's out there from a variety of different domestic and international research bodies so um just wanted to give an overview kind of that study because we didn't talk about it tonight. We already did talk about the National Sleep Study and just kind of put a finer point on our research efforts.

[Don]

Thanks Adam. Next question. After the request for comments, will FAA ask for comments on the noise policy proposals before decisions are made and will FAA consider changes? So, our plan is when we announce the recommended revisions to the noise policy, we're going to identify ways that the public can continue to participate

and provide input. We'll be doing that through probably through another Federal Register Notice that we discuss in the current Federal Register Notice and as we've mentioned before, the best place to get updates as things progress, is to go to www.faa.gov/noisepolicyreview and sign up for updates down on the bottom.

Let's see, next questions. A lot of communities have no idea that AAM or Advanced Air Mobility is coming to their cities and are unaware of the potential impacts of these low-flying vehicles. Will Advanced Air Mobility as a new entrant and new unique technology be subject to new and unique regulation for all aspects including privacy and noise? This is a great question. It is actually a topic we spend, at least Adam and I, spend a fair amount of time working among along with others in the Noise Division in our office. You know our policy review is focused on civilian aircraft and vehicles like commercial space Transportation Vehicles rockets and new emerging Technologies such as unmanned aircraft or Urban or Advanced Air Mobility aircraft. These new aircraft will be or are subject to noise source regulation. If they're seeking a type certificate, if they're going to be type certificated aircraft they're going to be required to meet the requirements of 14 CFR part 36 and we have standards in place for our many aircraft types already and if we don't have an appropriate standard we create one using the process to create a rule of particular applicability you know looking at the environmental review elements there certainly is FAA has to make decisions to enable these aircraft to operate. We're also doing environmental reviews on the potential operations as well so I think the answer across the board is yes, we will be considering the impacts including noise. We don't have, I guess, it's just something to be noted

we've said this before in other venues we don't have authority over privacy so that is not something that we're focused on.

Okay let's see. Next question and you see we're about five minutes past maybe we see we can squeeze a couple more in before we end today.

So, we have a question based on the assumption that the general public has our questions in our notice are based on the assumption that the general public has the scientific knowledge to answer the questions we asked appropriately? How do we expect the general public, that is a lay person, to answer technical questions to which they have no background? The commenter said that seems unfair. Adam are you would you be willing to take that one up

[Andrew]

Yeah, absolutely and by no means do we expect you know even have a technical background in noise especially you know like us where we're with this policy review. It seems like we're living it every day and I know you and I aren't as we're in the noise office but others you know within FAA too and really, we're really welcoming any input you're willing to provide. You don't have to have any scientific background on noise. It's really what we're looking for is whatever you're willing to share regarding your experience with noise and even comments that are as simple as something like the number of flights over my home every day is disturbing. That's helpful to us because it helps direct us toward maybe using one of those other metrics like Number Above (NA) is something that you know we want to consider you know or like as we've talked about before a nighttime noise and if you're saying I'm getting woken up all the time and not

even that really bothers me that is helpful. Those types of comments even though they don't say you know you don't you don't have to say what the metric is or what the solution is but what are the issues that you are experiencing with regards to Aviation noise helps us to then you know take a look at these comments and synthesize them together which we're going to do and then that may help point us potentially to a metric or to or even a threshold for example like saying you know I sit out on my patio and you know I'm having a conversation with my neighbor or whatever at the barbecue and we have to stop every time a plane flies over because we just can't understand each other. Like even that is helpful because that could potentially direct us to a threshold maybe that's associated with speech interference for example and maybe that's what we really need to be concerned with. So you know really we're welcome to any input you're willing to provide as simple as it may be you don't have to have extensive knowledge about noise to do so really just knowing your experience and with Aviation noise and just what part of Aviation noise it is that really you don't like is helpful and saying too if you live near an airport or I'm a long ways away from an airport and this is what's bothering me that's helpful too because that helps to guide some of those discussions so and what we're you know going to look at for potential recommendations so you know really recommend you to go to the docket you know, which is on regulations.gov then it's faa-2023-0855 but the link is also on the noise policy review website which is www.faa.gov/noisepolicyreview you know and go and make a comment on the docket and you know if you feel inclined and we'd recommend doing it but not everybody has the time to do it we have all the videos that we talked about also that are available on that same page to help provide some guidance, but if you don't they you have trouble

understanding them that doesn't mean that you have to talk in the terms that are in the videos when you make a comment be great if you would but if you don't that's fine too and just feel comfortable commenting to the level that ‘you feel you can.

[Don]

Thanks Adam I'm going to see if we can have time for two more questions. So, Andrew, I'll ask you to be brief with the one. I'm going to ask you and then I've got one more for all of you this commenter said they're troubled by the comments we've said about We're Not Looking Back we're not doing retroactive analyzes based on any potential policy changes. Are we willing to consider changes that would review existing impacts through the new lens of whatever metrics or thresholds that we come up with through this policy review?

[Andrew]

Thanks Don. I think this was a question we got a lot on Tuesday and certainly understand question coming make decisions based on the guidance and the policies in place at the time that the decision is in front of us however we are aware of how this process is evolving and as recommendations start to develop and everything starts to finalize via this process certainly those of us that handle these can start to inform analyzes that are underway at that time uh but you know currently we'll just keep uh moving forward um so ideally we can bring this process to a close in a relatively tight time frame to start making recommendations and implementing those recommendations to incorporate them into the analyzes moving forward certainly future environmental analyzes and if applicable part 150 studies will be done in accordance with these policy recommendations as they get worked into our guidance and orders. Thank you, Don.

[Don]

Thank you, Andrew. Okay so last question I'm going to ask it for all of you and we're going to go in reverse alphabetical order so Ryan you're going to go first given all your experience over the years of your career uh do you have any concepts on how we could address the noise policy issues versus asking our stakeholders for input without a proposal?

[Ryan]

Yeah so I think that's a good question because I think we've seen that a few times here it's like why aren't we coming out with a with a proposal right away why don't we have some you know examples and I think that that kind of ties into a lot of the questions that you saw in the in the Federal Register trying to kind of tease that out and get into the bottom line and really for me the bottom line that I've found is that you know changing significance levels and so forth may help some but I you know for me I think that there's a lot of uh people out there and communities out there that are farther from the airports that are really wanting information and in the past we've had a policy that basically says yeah you aren't getting significant noise impacts but I think what really you know this policy is kind of I think would be helpful is having more information that would be provided to those communities that would not necessarily you know register as a significant noise but information. I've sat down with folks and had a noise analysis and looked at it and said okay your house is right here and you have you're going to have x amount of increase or an x amount of decrease and they kind of they might not have been super happy about it but they understand that okay that's information that that I can I can live with or if not I can provide a complaint or a comment on and so I

think it's a matter of providing more information and I think that will end up with something at the end of this process but this process is just beginning I think we'll get some good input and I encourage everyone to provide more comments

[Don]

Thanks Ryan going backwards at the alphabet Andrew I guess you're next.

[Andrew]

Thank you Don I think this is a critical question because I mean personally I've been in a multitude of public-facing meetings wherein the accusation is always levied: do you guys already know what the answer is why are you even here right and so I think certainly all of us on this uh webinar have an understanding of things that we think would be beneficial of things that we think we would like to see it coming out of this process I think the questions that you see in the in the Federal Register notice are certainly informed by some of the concepts that that we consider we've talked at length about many supplemental metrics and reconsideration of those supplemental metrics and you know all of those things. I think are things that we all either individually or as a group believe have validity but you know we recognize again as I started where we've gone to communities on projects and the accusation is always levied you know what you want to do why are you talking to us and you know here we are we're being transparent we want the input to inform the recommendations because we want to feel as though this is a is a transparent process where all stakeholders have the opportunity to speak their minds and give data to inform the team. As the team develops some recommendations and ultimately you know makes those recommendations up to the decision makers be it whoever they are within the agency, I know we don't have an

Administrator right now but that doesn't mean that we certainly cannot implement this decision right now either so just that's kind of my take on it. Don so I appreciate the time

[Don]

Thank you, Andrew. Adam anything else to add?

[Adam]

Yeah a little bit different angle I guess from this is just that you know as Andrew and Ryan and Don have been out you know at a variety of different public forums for you know either Project Specific things or going to Round Table meetings, I certainly spent a lot of time working with Community roundtables before joining FAA and still do now that I'm in FAA, but the one thing that my big takeaway of why don't and not having an answer for this coming into this is just that you know I've seen so many different people provide different suggestions that are just I wouldn't have even thought of for different things looking at different metrics or ways to calculate different metrics and meaning a lot of people things that's things are they're interested in different things too .Some people it's sleep interference some people it's the number of events like outside you know at a barbecue other folks at something completely different and it's amazing how different each person and even different people in different parts of the country what different things that the people are really interested in with regards to potential changes to our policy and so obviously as Andrew said we've had some thoughts about different concepts and things and but everyone has different interests and really we don't want to come into this having a not you not having everyone having the ability to have input on what's important to them in this process and what we should what they

think is important that we should be considering so I think that the biggest thing for me and I'm always surprised about these type of answers and the things that we get and like just as a brief example and then I'll end as like we were at Don and I were actually at the UC Davis Aviation noise an emission Symposium and had the opportunity to speak with community members that were there and there were some ideas that were talked about that I that really had thought about but you know after hearing them out you know really that is a good idea and we should look into it so I just that's the one thing is that by going through this process we're making sure we're getting broad base of input and there's going to be some things in there that we have likely not even thought about that we may want to consider and changing our policy.

[Don]

For now on I guess I'm not going to go fully in Reverse alphabetical order because I have something to say too and I'm not the last one alphabetically but I think the last thing maybe I would say on this topic when we were trying to think of the way to go through this process, I felt like I put myself in the shoes of somebody who wanted to participate in the process sort of as a stakeholder and my thought was that someone would rather participate and share and put into a process that didn't already have a proposed answer versus one that was already had an idea and would had sort of had to justify or convince the decision makers to move off of their proposal and that's the reason why I really wanted to go through this process is we're coming into it with at a point where we haven't made a decision we've certainly been thinking about it we have ideas but we don't have any recommendations and we're really interested in hearing input from all of our stakeholders as we as we sort of continue through this process

because I think honestly this is this is the way that we're going to make the best updates it's not going to solve all of the problems but it's certainly hopefully will take a step in the right direction. Okay, that's about all the time we have for tonight we're almost 20 minutes past. I appreciate all of the panelists all of you all of the folks supporting us for sticking around a little late I hope that the presentation and the Q&A have been helpful in addressing your questions we as I mentioned we received over 200 tonight and we tried to get to as many as possible please submit your comments to our docket on regulations.gov that's FAA-02023-0855 We appreciate the discussion in the comments and questions today but those are not going on the docket. We need you to submit something onto the docket for it to be considered officially as we as we go through this review. Due to time constraints I mentioned we haven't been able to answer all of the relevant questions, some of them were asked we had to come back to a few and if you joined us part way through this webinar the recording will be posted online on our website www.faa.gov/noisepolicyreview. We also invite you to join us as you're available during the next webinar or the next two webinars we have next week. We'll be answering more of your questions on May 23rd at 9 00 PM Eastern Time 9 to 11 and on May 25th that one is from 4 to 6 PM eastern time you can get links and additional details available are available at www.faa.gov/noisepolicyreview. Thank you all again for participating for being with us this evening We appreciate your input have a good evening bye-bye.