The Honorable Matthew P. Donovan  
Acting Secretary  
United States Air Force  
1670 Air Force Pentagon  
Washington, DC 20330-1670

Dear Acting Secretary Donovan:

I write to relay concerns expressed to me by my constituents after their review of the draft environmental impact statement (EIS) for the F-35A operational beddown in Madison, Wisconsin, and to seek answers to new questions about the proposal after hearing their concerns.

According to the draft EIS, there will be 1,019 newly impacted households (2,215 people) who will experience aircraft noise levels above 65 decibels (dB) Day-Night Average Sound Level (DNL). The report also states those areas exposed to noise levels above 65 dB DNL are now “potentially incompatible for residential land use.” (WI-32, WI-73). Additionally, the EIS states: “There would be significant disproportionate impacts to low-income and minority populations as well as children…the Proposed Action could disproportionately impact children.” (2-32; 2-33) My constituents are very concerned by these new findings, I would appreciate written responses to the following questions:

- How does the U.S. Air Force (USAF) define “incompatible for residential land use?”
- In layman’s terms, what does this mean for families currently living in this area?
- What recourse is available to those who currently live in the area defined as “potentially incompatible for residential land use?”
- Are there strategies the USAF can use to reduce the area of residential land included in the 65-75 dB DNL range?
- What noise mitigation strategies are available to the affected locations?
- What support, including any noise mitigation efforts, will the USAF offer impacted families and communities in Madison?

With respect to concerns about a possible increase in the number of military flights conducted above the Madison community, the draft EIS states that there will be 600 additional annual sorties conducted by new F-35A aircraft compared to the existing F-16 aircraft. In past training situations, the USAF has used flight simulators to reduce the total number of training flights over a community. Please answer the following questions regarding flight simulations and annual sorties:
- Will flight simulators for the new F-35A planes be made available at Truax Field?
- Will such simulators reduce the number of annual sorties proposed in the draft EIS?
- What can we actually expect with respect to the number of flights that depart and land in Madison compared to the numbers we currently experience?

In summary, estimates that more than 2,000 individuals will be significantly impacted by noise and an additional 600 flights will occur over the Madison community are concerning. The draft EIS does not propose strategies to affirmatively mitigate the noise or reduce number of training flights that will affect our community. I thank you for examining this matter further, and I look forward to working with you to address these questions on behalf of the residents of Wisconsin’s 2nd Congressional District.

Sincerely,

Mark Pocan
Member of Congress
September 17, 2019

The Honorable Matthew P. Donovan
Acting Secretary
United States Air Force
1670 Air Force Pentagon
Washington, DC 20330-1670

Dear Acting Secretary Donovan:

I am writing to follow-up on my August 19, 2019 letter regarding the United States Air Force’s Draft Environmental Impact Statement (DEIS) for the F-35A mission at Truax Air National Guard Base. While I have not yet received a response to my previous questions, I continue to hear concerns about the noise impact of the F-35 at Truax. As I hear from more members of the community, it has been brought to my attention that the noise impact is difficult to assess due to the Air Force’s use of the Day, Night, Average Sound Level (DNL) metric.

I formally request the Air Force in coordination with the 115th Fighter Wing test the F-35 flight pattern at Truax Air National Guard Base. Specifically, the Air Force should conduct a take-off and landing of the F-16 and the F-35 planes so community members will have a more accurate understanding of the noise impact from the F-35 mission. This test mission should be completed before the public comment period ends on September 27, 2019.

I look forward to working with you on this request.

Sincerely,

Mark Pocan
Member of Congress
The Honorable Matthew P. Donovan  
Acting Secretary  
United States Air Force  
1670 Air Force Pentagon  
Washington, DC 20330-1670  

Dear Acting Secretary Donovan:  

I write to follow-up on my letters to you dated August 19, 2019 and September 17, 2019 pertaining to the United States Air Force’s Draft Environmental Impact Statement (EIS) for the proposed F-35A mission at Truax Air National Guard Base.  

I have yet to receive a reply to either of my previous letters, even though the public comment period on the Draft EIS is scheduled to close this Friday. Respectfully, my constituents cannot appropriately comment on the F-35 proposal absent the information I have solicited from you on their behalf. I request an extension of the public comment period to a date that is 30-days after you have relayed the information sought below and in my previous two letters.  

In addition to previous requests, I also wish to know the process through which Members of Congress will be able to petition for relief for noise-impacted constituents, and how such constituents can directly apply for noise mitigation support and aid from the federal government. Further, please relay the noise difference between the F-35 and F-16 in percentage terms, not in DNL measurements as it has been previously presented.  

Thank you for your attention to this matter. I eagerly await your reply.  

Sincerely,  

Mark Pocan  
Member of Congress
October 3, 2019

The Honorable Matthew P. Donovan  
Acting Secretary  
United States Air Force  
1670 Air Force Pentagon  
Washington, DC 20330-1670

Dear Acting Secretary Donovan:

First, thank you for extending the public comment period for the United States Air Force’s Draft Environmental Impact Statement for the proposed F-35A mission at Truax Air National Guard Base as I requested in my September 24, 2019 letter to you. This additional time will enable impacted individuals to submit comments based on your responses to my previous inquiries.

Second, I write to strenuously encourage you to reconsider your decision not to conduct a demonstration take-off, flight, and landing of an F-35A – alongside an F-16 – at Truax Air National Guard Base. I believe such a demonstration would allow the citizens of Madison, and surrounding communities, to fully understand the impact an F-35A operational bed down at Truax Field may have on their community.

I thank you for your reconsideration of your position on a flight demonstration and look forward to your reply.

Sincerely,

Mark Pocan  
Member of Congress
The Honorable Mark Pocan  
United States Representative  
Washington, DC 20515  

Dear Representative Pocan:

Thank you for your August 19, 2019 letter expressing your concerns and those of your constituents from the Draft Environmental Impact Statement (EIS) for the F-35A operational beddown at Truax Field in Madison, Wisconsin. We are grateful to the City of Madison for its strong support to military Airmen and their families based at the site of the current Dane County Regional Airport for more than 77 years. This historic partnership contributed to the Air Force decision to consider basing our most advanced fighter aircraft at this airfield. However, we are mindful of the challenges communities face when hosting a military installation.

The federal mission of Air National Guard (ANG) units is to support the USAF by maintaining well-trained, well-equipped units available for prompt mobilization during wartime, and to provide assistance during national emergencies. The ANG must train with the current USAF aircraft, operate combat and support aircraft, and train personnel using the requirements established by Air Combat Command through its Ready Aircrew Program. The beddown actions and associated training assures availability of combat-ready pilots to operate the most advanced fighter aircraft in the world.

As you know, the Draft EIS is evaluating potential environmental impacts associated with the proposed beddown of F-35A aircraft at two of five alternative ANG locations. Identification and analysis of alternatives is one of the core elements of the Draft EIS process under National Environment Protection Act and USAF implementing regulations. The Draft EIS was published in August and is open for public comment. All substantive comments received during the public comment period open through September 27th will be considered during preparation of the Final EIS.

In order to be completely transparent and continue to inform the citizens of Madison, I offer the enclosed responses to your questions. We are proud the Wisconsin Air National Guard is being considered to receive state-of-the-art 5th Generation aircraft.

Thanks for your support of our mission, our Airmen and their families.

Sincerely,

[Signature]

Matthew P. Donovan  
Acting

Attachment:  
Questions and Answers

cc:
SAF/AA
Q1: “How does the U.S. Air Force (USAF) define ‘incompatible for residential land use?’”
A1: Incompatible use” does not mean non-livable conditions. In fact, there are many communities/neighborhoods throughout the country with residential development, and other sensitive land uses, within airport high noise areas or zones. In general sound levels greater than 65 dB Day-Night Average Sound Level (DNL) are considered to be incompatible with residential land use. The federal government has established guidelines to help assess land use compatibility with aircraft noise exposure. For example, the Department of Housing and Urban Development labels community noise exposure between 65 dB and 75 dB as “Normally Unacceptable.” Federal project assistance is permitted for residential development with additional attenuation (beyond normal construction) in the building’s shell (24 CFR 51.104(a)(1)). Compatibility, in relation to military readiness, can be defined as the balance and/or compromise between community and military needs and interests. The goal of compatibility planning is to promote an environment where both entities can coexist successfully. These guidelines are intended as a planning tool, and as such provide general indications as to whether particular land uses are appropriate for certain predicted noise exposure levels.

Q2: “In layman’s terms, what does this mean for families currently living in this area?”
A2: The DNL is a metric designed to express in a single number all the noise that occurs over the course of a 24-hour period. Furthermore, it recognizes that noise at night is more disruptive than daytime noise by penalizing sounds experienced between 10 p.m. and 7 a.m. with a weighting factor. Aircraft noise does not happen continuously; it is a series of individual events. A higher DNL in this case means that there are slightly more events expected than there were previously (roughly 2 flights per day) and the individual events will be louder (due to the new aircraft being introduced). A shift of some daytime flights to nighttime flights (with the same number of flights by the same aircraft) would also raise the DNL due to the weighting factor. That does not mean that they would be required to vacate their homes.

This DNL is typically described as an annoyance generally and a minor effect on speech intelligibility for a few seconds during an overflight. According to the Wyle Model, Handbook of Noise Control, 65-75 dB sound level is the equivalent of a vacuum cleaner at 10 feet, automobile at 100 feet or air conditioner unit at 100 feet distance. With the current mission, there are already many households (551 people, 229 households) within the 65-70 dB contour. 65-75 dB is considered “moderately loud” with “very loud” starting at 90 dB (the sound equivalent of a heavy truck at 50 feet distance).

Should the FAA prepare and implement an updated Part 150 Study, specific mitigations could be identified, as needed, and implemented to minimize impacts to residences within the 65 dB and higher DNL noise contours. This FAA program could include
providing noise mitigation to the homes (insulation, windows, etc.), or even purchasing homes in some extreme cases.

Q3: “What recourse is available to those who currently live in the area defined as “potentially incompatible for residential land use?”
A3: Since sound/noise is air pressure, noise mitigation begins with sealing the exterior shell of a structure. Common weatherization improvements that make a home more energy efficient (like caulking windows and installing weatherstripping) also improve its acoustic performance. Many local governments and utility providers offer guidance and funding for weatherization improvements. This is particularly true for low-income residents.

Q4: “Are there strategies the USAF can use to reduce the area of residential land included in the 64-75 dB DNL range?”
A4: There are several operational changes that could reduce the area subjected to additional noise. Steeper departure and approach angles, less nighttime training, less aircraft/sorties, and restricted afterburner use have been effective in other locations.

Q5: “What noise mitigation strategies are available to the affected locations?”
A5: The Wisconsin Department of Administration’s, Division of Energy, Housing, and Community Resources funds weatherization programs through the Project Home program ([https://www.projecthomewi.org/programs/weatherization/weatherization.html](https://www.projecthomewi.org/programs/weatherization/weatherization.html)). Project Home funds energy efficiency improvements for qualifying homeowners at no cost. Rental property owners that do not qualify individually are only charged 15% of the project costs.

Dane County Regional Airport has proactively engaged in development of aviation easements within the vicinity of the airport. Numerous aviation easements have been purchased by Dane County Regional Airport in residential areas affected by airport operations. In addition, should the FAA prepare and implement an updated Part 150 Study, other specific mitigations would be identified, if needed, and implemented to minimize impacts to residences within the 65 dB and higher DNL noise contours.

Q6: “What support, including any noise mitigation efforts, will the USAF offer impacted families and communities in Madison?”
A6: The USAF works diligently with the City of Madison and the State of Wisconsin to be a good neighbor and responsible member of the community. Support for the community includes $62M in annual payroll for its 1000 employees as part of $100M in total economic activity.

As discussed in the Draft EIS (Pg. WI-17, §W12.6), the USAF does not have authority to expend appropriated funds on facilities that are not under the direct control of the USAF. However, the FAA has a program that addresses noise and compatible land use near airports. The FAA’s regulations implementing the Aviation Safety and Noise Abatement Act of 1979 set forth at 14 C.F.R. Part 150 provide a voluntary process whereby an airport sponsor can use to mitigate significant noise impacts from airport users. It is important to note that this FAA program is not a guarantee that sound mitigation or abatement will take place. Eligibility for sound insulation in noise-
sensitive land uses through the FAA’s Airport Improvement Program requires that the impacted property be located within a 65 dB DNL or higher noise contour and meets other FAA sound mitigation guidance.

**Operations:**
Q1: “Will flight simulators for the new F-35A planes be made available at Truax Field?”
   A1: Flight simulators are a part of the proposed action and are included in the Draft EIS. (pg. WI-62 and for other alternatives, ppg. ID-63, FL-60, MI-64, and AL-62).
Q2: “Will simulators reduce the number of annual sorties proposed in the draft EIS?”
   A2: Simulators were considered when analyzing the number of air operations. See Draft EIS pages WI-62, as well as similar simulator info for other candidates on Draft EIS pages ID-63, FL-60, MI-64, and AL-62. The simulator requirements are in addition to actual flights required. As the F-35 simulators systems mature over time, more tasks may be accomplished in the simulators, but not at this time.
Q3: “What can we actually expect with respect to the number of flights that depart and land in Madison compared to the numbers we currently experience?”
   A3: The Draft EIS fully describes the potential impacts of our anticipated F-35A operations at the Dane County Regional Airport, as well as other alternate locations. The number of operations analyzed in the Draft EIS, an increase of approximately 3 percent in total airfield operations, are based on the requirements established by 115 FW, Air Combat Command, and the National Guard Bureau. The Draft EIS indicates there would be no impact to the local air traffic environment or terminal procedures at Dane County Regional Airport due to available capacity in the area. If Truax Field Air National Guard Base is selected for this basing action, further understanding on actual flight operation numbers will become apparent following completion of the beddown.

**LATE ADD QUESTION RE NUCLEAR:**
Q1: “Does the Air Force plan to store nuclear weapons at Truax Air National Guard base, or make the F-35 jets based at Truax nuclear-capable”
   A1: Although the F-35A could eventually be “nuclear capable”, the beddown being considered at Traux Air National Guard base does not include nuclear weapons storage.
The Honorable Mark Pocan  
U.S. House of Representatives  
Washington, DC 20515  

Dear Representative Pocan:

Thank you for your September 17, 2019 letter expressing your concerns and those of your constituents from the Draft Environmental Impact Statement (EIS) for the F-35A operational bed down at Truax Field in Madison, Wisconsin and requesting we conduct a take-off/landing demonstration of an F-16 and F-35 so community members can experience possible noise effects.

We understand your concerns and those of your constituents with regard to the difficulty in assessing our use of the “Day, Night, Average Sound Level” (DNL) metric for measuring changes in noise impacts from the F-35, and are committed to working with you to facilitate a common understanding of these impacts in practical terms. We are mindful of the challenges communities face when hosting a military installation, especially potential noise effects on the community from take-offs and landings. Identification and analysis of those noise impacts is one of the core elements addressed in the Draft EIS.

In an effort to ensure transparent and repeatable evaluation methods, our noise analysis is necessarily based upon a well-established, scientific process. We use this modelling process to assure consistency between the alternative locations that reflect expected flight patterns at each. The results of these complex calculations of noise exposure, known as annualized DNL are tabulated and displayed as noise contour maps within the Draft EIS.

We will not be able to support your request to fly an F-35 at Truax Field. In contrast to the DNL, this would only present a momentary experience of that aircraft’s noise which would serve no evaluative purpose. Scientifically, it would not represent the actual cumulative experience over an extended period of time, nor would it be repeatable at other bases being evaluated. The primary reason for this is that noise generated from a single event is influenced by many factors, such as wind speed and direction, air temperature, relative humidity, and take-off weight. Therefore, a single event would not reflect the requisite science, attend to the complexity and sensitivity of human hearing, and would inject subjectivity that would undermine the deliberative environmental analysis.

The Air National Guard supports the Air Force by maintaining well-trained, well-equipped units ready for prompt mobilization during wartime and national emergencies. To this end, they must train with the most current and capable aircraft. We are grateful to the City of Madison for its strong support to our Airmen and their families based at Dane County Regional
Airport. This historic partnership contributed to the Air Force decision to consider basing our most advanced fighter aircraft at this airfield.

Thanks for your support of our mission, our Airmen and their families.

Sincerely,

[Signature]

Matthew P. Donovan
Acting Secretary of the Air Force

cc:
SAF/AA
The Honorable Mark Pocan  
United States Representative  
Washington, DC  20515

Dear Representative Pocan:

Thank you for your September 24, 2019 letter expressing your concerns and those of your constituents about the Draft Environmental Impact Statement (EIS) for the F-35A operational beddown at Truax Field in Madison, Wisconsin and requesting a 30-day extension to the public comment period.

We want to ensure all interested parties have the opportunity to provide input to our proposed action to beddown F-35s at two of five possible locations, including Dane County Regional Airport, through the environmental impact statement process. Therefore, we are extending the public comment period until November 1, 2019. John Henderson informed me that he spoke with you about the beddown and his support for your extension request.

In your letter, you asked for information on federal programs that can assist you and your constituents with noise mitigations. I refer you to the Federal Aviation Administration’s Airport Improvement Program, often referred to as the Part 150 Program, which provides a process to request aid to mitigate significant noise impacts, including insulation for noise effects. Residents, especially low-income families, interested in this program should contact their local airport authority for assistance.

As you are aware, our analysis of potential noise impacts is based upon a well-established, scientifically based modelling process. Some of the results of these complex calculations of noise exposure are expressed as annualized Day-Night Average Sound Level metric, a 24-hour average of all the noise that happens (penalizing nighttime noise) conflated into a single number. As you have pointed out, it is difficult to understand what the difference in these single numbers mean. Attached to this letter is a diagram of common sound sources as related to specific sound levels people typically experience.

Although we can calculate a change percentage between the F-16 and F-35 noise, that calculation would reflect a change in noise energy that cannot be equated to perception of loudness or quietness. Unfortunately, this calculation is not helpful in understanding noise differences. For example, the difference in sound level between an F-35 and an F-16 on take-off
at a 1,000 feet altitude and from 1,000 feet away is approximately 5.6 dB. This equates to a little over 55% difference. This difference in sound will change with both altitude and distance from the origin point; therefore, there is no single percent difference between the two aircraft.

Thanks for your support of our Air Force, our Airmen and their families.

Sincerely,

Barbara Barrett
Secretary of the Air Force

Attachment:
Typical Sound Levels of Common Sounds

cc:
SAF/AA
<table>
<thead>
<tr>
<th>COMMON SOUNDS</th>
<th>SOUND LEVEL dB</th>
<th>LOUDNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen Torch</td>
<td>130</td>
<td>UNCOMFORTABLE</td>
</tr>
<tr>
<td>Discotheque</td>
<td>120</td>
<td>32 Times as Loud</td>
</tr>
<tr>
<td>Textile Mill</td>
<td>110</td>
<td>16 Times as Loud</td>
</tr>
<tr>
<td>Heavy Truck at 50 Feet</td>
<td>100</td>
<td>VERY LOUD</td>
</tr>
<tr>
<td>Garbage Disposal</td>
<td>90</td>
<td>4 Times as Loud</td>
</tr>
<tr>
<td>Vacuum Cleaner at 10 Feet</td>
<td>80</td>
<td>MODERATELY LOUD</td>
</tr>
<tr>
<td>Automobile at 100 Feet</td>
<td>70</td>
<td>QUIT</td>
</tr>
<tr>
<td>Air Conditioner at 100 Feet</td>
<td>60</td>
<td>1/4 as Loud</td>
</tr>
<tr>
<td>Quiet Urban Daytime</td>
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<td></td>
</tr>
<tr>
<td>Quiet Urban Nighttime</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Bedroom at Night</td>
<td>30</td>
<td>1/16 as Loud</td>
</tr>
<tr>
<td>Recording Studio</td>
<td>20</td>
<td>JUST AUDIBLE</td>
</tr>
<tr>
<td>Threshold of Hearing</td>
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The Honorable Mark Pocan  
U.S. House of Representatives  
Washington, DC  20515

Dear Representative Pocan:

Thank you for your October 3, 2019 letter requesting reconsideration of conducting a demonstration flight between an F-16 and F-35 at Truax Field in Madison, WI to help your constituents get a sense of the different sound levels each aircraft creates.

The purpose of the National Environmental Policy Act (NEPA) is to assure an informed decision, with public input, that considers potential impacts to the human environment. The Draft Environmental Impact Study provided detailed, repeatable, and scientifically valid expressions of how much louder the F-35 will be in steady state and how much louder the F-16s/F-35s will be during a transition period. These analyses were conducted by experts, are proven to be sufficient for providing public notification on potential noise impacts, and allow for public comment on these impacts in accordance with federal law. Based on the comments received so far, the public has received the message in sufficient detail to express meaningful opinions.

Supporting demonstration flights as requested would introduce unscientific and subjective expressions of potential noise impacts that would undermine the excellent technical work that has been completed to date, fail to further the purposes of this NEPA action, and lead to unnecessary delay. Therefore, we are not able to support your request for a demonstration flight as stated in my September 26, 2019 letter.

Thanks for your support of our Air Force, our Airmen and their families.

Sincerely,

Barbara Barrett

cc:  
SAF/AA