

# Safe Skies Clean Water Wisconsin

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November 1, 2019

Mr. Ramon Ortiz  
National Guard Bureau/A4AM  
3501 Fetchet Avenue  
Joint Base Andrews, MD 20762-5157

Subject: Submission of Comments  
Draft Environmental Impact Statement  
F-35A Operational Beddown for the Air National Guard  
Truax Field in Madison, Wisconsin and Four Other Sites

Dear Mr. Ortiz:

On behalf of the residents of Madison, Wisconsin that comprise Safe Skies Clean Water Wisconsin, we are submitting comments on the August 2019 Draft Environmental Impact Statement for the F-35A Operational Beddown for the Air National Guard at Truax Field in Madison, Wisconsin and four other sites in Idaho, Florida, Michigan and Alabama.

The proposed F-35A fighter jets are expected to be louder and fly more frequently than the F-16 jets currently based at Truax Field. The noise from the current F-16 jet testing and training is already unacceptable to many Madison residents. The noise interferes with the enjoyment of our homes, our health and the education of our children. It adversely affects thousands of residents who live around Truax Field on the east and north side of Madison.

Unlike other proposed sites, Truax Field is located in an urban area with thousands of residents who live on the east and north sides of Madison. Truax is also surrounded by low income and minority families. Of the five sites evaluated in the EIS, Truax Field will have the greatest health and environmental justice impacts. The EIS for Truax Field concludes: "There would be significant disproportionate impacts to low-income and minority populations as well as children. The increase in noise exposure to the south of the airport would disproportionately impact low-income areas and the increase in noise exposure to the east of the airport would disproportionately impact a low-income minority population."

Besides noise, the Air National Guard at Truax Field has already contaminated groundwater, exposing residents and causing the shutdown of a municipal drinking well serving thousands of city residents. While ordered to begin investigation and cleanup by the Wisconsin Department of Natural Resources, it is unlikely the ANG will be provided with the necessary funds. With so many people living adjacent to Truax Field, there will be much more exposure to emissions from the proposed F-35A jets, and greater risk of harm due to accidents and fires.

Madison and Dane County lead Wisconsin in population growth. Unemployment is low so the 64 jobs created by this project could easily be created with far less harm. Madison residents are actively working to improve the quality of life in our neighborhoods and encourage more people to live in the city. Rather than encouraging people to live where they work and play, the F-35A squadron will make the city a less desirable place to live and promote urban sprawl, unsustainable lifestyles and global warming.

The unsuitability of Truax Field as a site for the proposed F-35A jets has been reiterated by government agencies that represent our dense neighborhoods around this location. The City of Madison Common Council, Dane County Supervisors and the Madison Board of Education have all adopted resolutions opposing the beddown of the F-35 fighter jets at Truax Field.

Lastly, no matter their final location, we oppose the enormous funds that will be spent on the new F-35A fighter jets. We quote from the Chance for Peace speech given by President Eisenhower in 1953:

*“Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. The cost of one modern heavy bomber is this: a modern brick school in more than 30 cities. It is two electric power plants, each serving a town of 60,000 population. It is two fine, fully equipped hospitals. It is some fifty miles of concrete pavement. We pay for a single fighter with a half-million bushels of wheat. We pay for a single destroyer with new homes that could have housed more than 8,000 people. This is not a way of life at all, in any true sense. Under the cloud of threatening war, it is humanity hanging from a cross of iron.”*

We request that Truax Field be removed from consideration as a site for the F-35A fighter jets.

Please find enclosed our comments and questions on the draft EIS. We request that these be addressed prior to preparation of the final EIS.

Should you or other NGB staff have questions, please contact Tom Boswell, (608) 718-7312 and [tomboswell2002@yahoo.com](mailto:tomboswell2002@yahoo.com).

Sincerely,

On behalf of Safe Skies Clean Water Wisconsin

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**Safe Skies Clean Water Wisconsin  
Comments and Questions on the Draft EIS  
F-35A Operational Beddown for the Air National Guard  
Truax Field in Madison, Wisconsin and Four Other Sites  
November 1, 2019**

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## 1. Rank the Five Sites by Degree of Environmental Impacts

a. The EIS should rank the five sites in order of greatest to least environmental impacts to clearly show how Truax Field and Madison is by far the worst choice for the beddown of the F-35A fighter jet squadron.

## 2. Public Opposition

a. The EIS should describe the level of public opposition for each of the five sites.

b. The EIS should list the five sites in order of greatest to least public opposition to clearly show that Truax Field and Madison are by far the worse choice for the beddown of the F-35A fighter jet squadron. It should note the opposition of our public officials in Madison includes members of the Common Council of Madison, Supervisors of Dane County and Madison Metropolitan School Board.

## 3. Environmental Justice

a. Existing noise already disproportionately impacts low income and minority residents who live close to Truax Field, including those in a mobile home park only 500 feet from the main airport runway. Further the EIS concludes that 132 households will now lie within noise levels where “housing is incompatible”. Additionally, the 65 dB DNL noise contour presented in the EIS excludes many low-income families and persons of color living just outside this contour.

Figures 1 and 2 taken from the City of Madison staff analysis of the draft EIS show the poverty rate and percent persons of color within and just outside the EIS noise contours associated with the proposed F-35A squadron.<sup>1</sup>

The proposed squadron of F-35A fighter jets will only worsen existing noise impacts and promote environmental racism.

Executive Order 12898 states that:

*“To the greatest extent practicable and permitted by law...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations”.*<sup>2</sup>

Additionally, US Air Force rules require that:

*“During the preparation of environmental analyses under this instruction, the EPF should ensure compliance with the provisions of E.O. 12898, Federal Actions to Address Environmental Justice in*

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<sup>1</sup> City of Madison, Department of Planning & Community & Economic Development, F35 EIS Staff Analysis, September 10, 2019.

<sup>2</sup> <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

*Populations and Low-Income Populations, and Executive Memorandum of February 11, 1994, regarding E.O. 12898”.*<sup>3</sup>

The EIS should explain how the impacts to low-income and minority families and the environmental justice policy will be used to determine the acceptability of Truax Field as a site for the new F-35A fighter jets.

b. The EIS should rank the five sites based on the anticipated impacts to low-income and minority families to clearly show that Truax Field will have the greatest environmental justice impacts.

c. The September 12, 2018 scoping meeting and draft EIS presentation meetings were held several miles from affected low-income and minority families who live adjacent to Truax Field. The Air Force should explain if making these meetings difficult to attend met the goals the environmental justice policy.

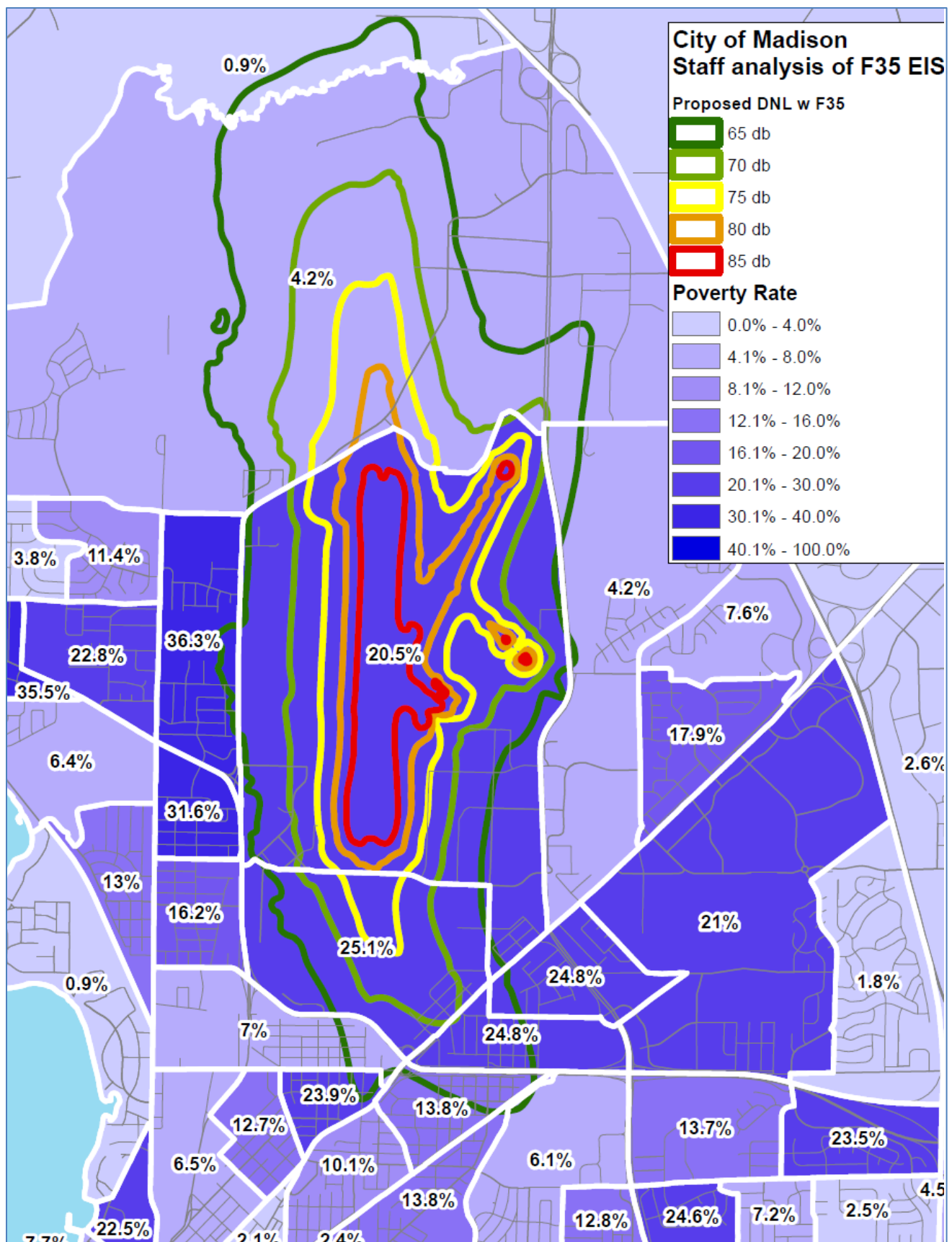
d. The draft EIS, meeting announcements and Air Force presentations were only provided in English. Impacted neighborhoods have larger than average populations of non-native English speakers including Hmong and Spanish. The Air Force should explain how providing project materials only in English met the goals the environmental justice policy.

e. Madison’s Community Development Authority (CDA) governs the city’s 857 public and multifamily housing units. The focus of this housing is to “provide decent and safe rental housing for eligible low-income families, the elderly, and persons with disabilities”. There are multiple CDA properties, as well as many low-income housing units, within or very near to the 65 dB DNL contour presented in the draft EIS. In particular, the Truax Park Apartments and the Webb-Rethke townhomes are located on the border of the 65 dB DNL contour. Head of household demographics at Truax and Webb-Rethke are 70% persons of color, 100% low income, 45% disabled and 14% elderly. While the draft EIS states that 551 people will be impacted by the 65-70 dB DNL contour. The population at these two properties alone is 600 residents. The CDA has commented on the draft EIS and asked that it consider CDA properties, particularly the Truax Park apartments and the Webb-Rethke townhomes.<sup>4</sup>

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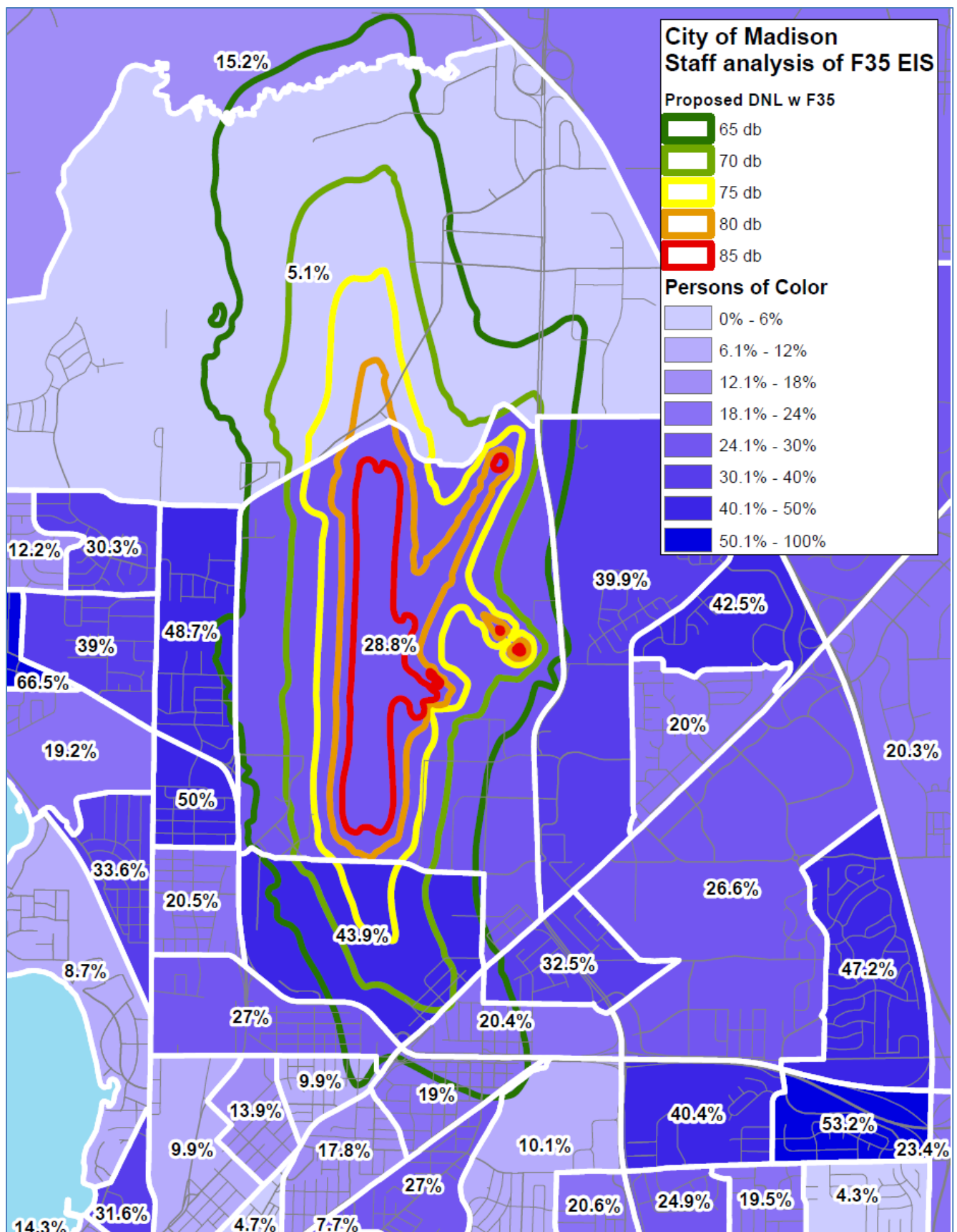
<sup>3</sup> <https://www.govinfo.gov/content/pkg/CFR-2017-title32-vol6/pdf/CFR-2017-title32-vol6-sec989-35.pdf>

<sup>4</sup> Draft CDA Statement on proposed Air National Guard F-35A Operational Beddown, October 16, 2019, <https://madison.legistar.com/View.ashx?M=F&ID=7764631&GUID=DBDB1205-3D82-413E-ADDD-43F0EFA767FA>



**Figure 1 - City of Madison Staff Analysis of Poverty Rate and F-35 Noise Contours**





**Figure 2 - City of Madison Staff Analysis of Persons of Color and F-35 Noise Contours**

#### **4. Evaluate the Size of Impacted Population**

a. The five sites evaluated by the EIS are located in both rural and urban areas. The percent of the populations impacted by this project is identified but not the actual number of people. The population of the area surrounding each site should be provided and the sites should be ranked by the number of people impacted by this project.

#### **5. Expand the Area Evaluated by the EIS**

a. Truax Field is unique since it is located in an urban area. It is adjacent to Dane County Regional Airport in Madison, Wisconsin and Dane County. These are the fastest growing areas in Wisconsin. There are 60,000 people living within 3 miles of Truax Field who will be impacted by the proposed F-35A squadron.

To better evaluate the impacts to sites within urban areas, the EIS should show the number of households, people, schools, day care centers, and other sensitive receptors within 3 miles of each of the five sites.

#### **6. Expand DNL Noise Levels Evaluated by Noise Modeling**

a. The 65 dB DNL noise standard used for the noise modeling in the EIS is over 50 years old.<sup>5</sup> As many Madison residents can attest, it is completely inadequate. To better evaluate the impacts of sites within urban areas, the EIS should expand the noise analysis beyond the 65 dB DNL to show areas included in the 60 and 55 dB DNL. For example, the Minneapolis St. Paul International Airport updates its noise contours annually out to 60 dB DNL and provides noise mitigation to homes within this noise contour.<sup>6</sup> The State of Oregon requires airports to evaluate noise impacts out to the 55 dB DNL and include this area in the Airport Noise Impact Boundary.<sup>7</sup>

A 2001 technical paper on noise standards concluded that the Federal Aviation Administration (FAA) and Department of Defense (DOD) policies are based on the 65 dB DNL was developed in the early 1970's, while most of the agencies and boards, standard setting bodies, and international organizations have established their policies after 1995.<sup>8</sup> The World Health Organization (WHO) recommendations are based on over 25 years more worldwide research into noise effects than the earlier FAA and DOD

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<sup>5</sup> From Whence Came Ldn / DNL 65?, N. Miller, 2010, <https://hmmh.com/resources/news-insights/blog/from-whence-came-ldn-dnl-65/>

<sup>6</sup> Minneapolis St. Paul International Airport (MSP) 2018 Annual Noise Contour Report, <https://www.macnoise.com/noise-mitigation-program/msp-annual-noise-contour-analysis-reports>

<sup>7</sup> Airport Land Use Compatibility Guidebook January, 2003.

<sup>8</sup> Schomer and Associates, A White Paper: Assessment of Noise Annoyance, April 22, 2001

policies. Nearly all agencies and boards, standards setting bodies, and international organizations with oversight of noise producing sources use a DNL criterion value of 55 dB as the threshold for defining noise impact in urban residential areas. WHO considers DNL 55 dB as causing serious annoyance and creating an unhealthy environment, and DNL 50 dB as creating moderate annoyance.

b. The assumptions used for the noise analysis predict a 65 dB DNL noise contour that excludes numerous low-income and minority populations. These include the CDA Truax housing, CDA Webb-Rethke townhomes and other housing near Worthington Park, and near the intersection of Packers Avenue and Northport Drive.<sup>9</sup> While these areas will experience virtually identical noise exposure as residents who live on the contour line, they will not be eligible for sound mitigation funding. These low-income neighborhoods should be included in the noise analysis to provide a more accurate evaluation of project impacts. Figure 3 taken from the City of Madison staff analysis of the draft EIS shows the assisted low-income housing units just outside the EIS noise contours associated with the proposed F-35A squadron.

## **7. Provide Instantaneous Noise Level Contours**

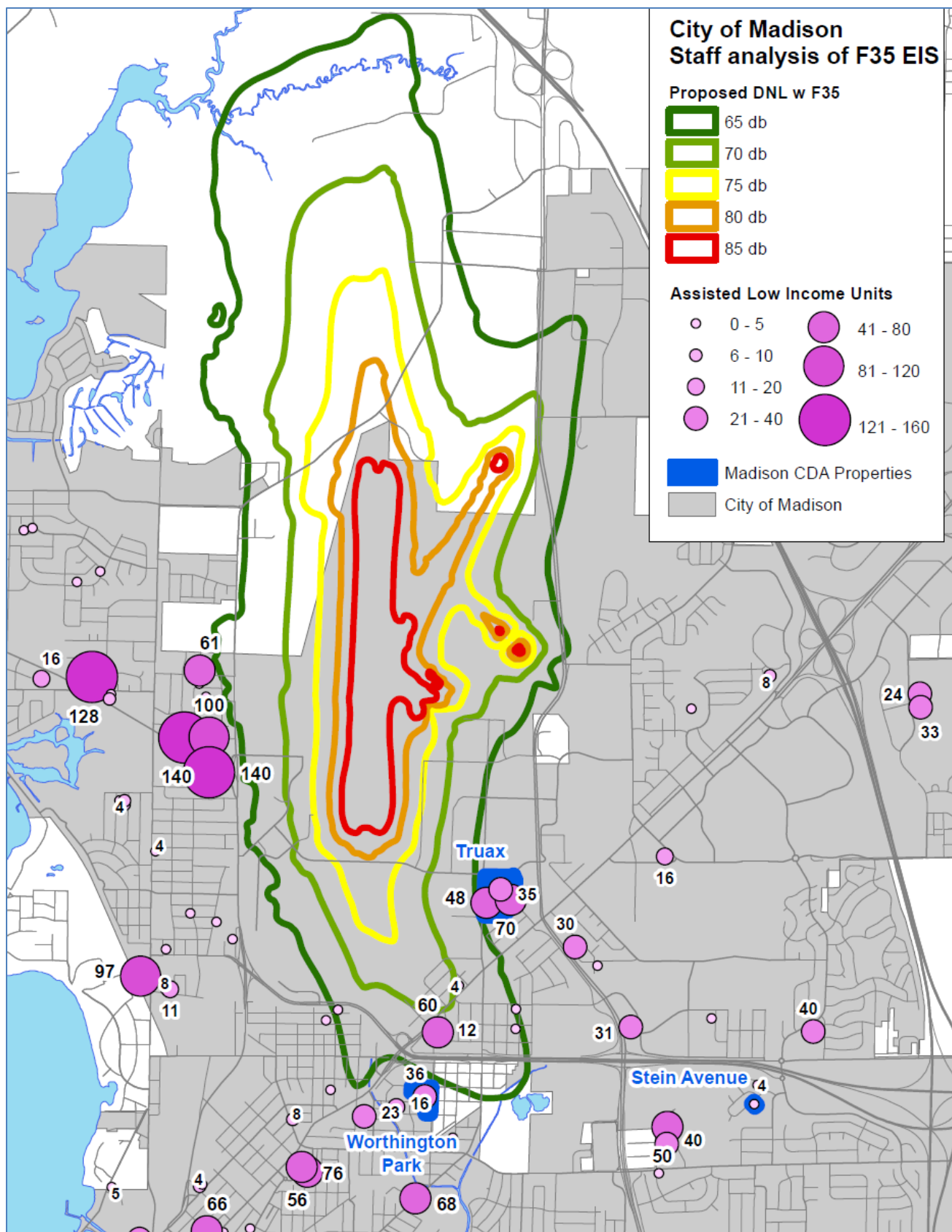
a. The use of 24-hour average DNL noise contours does not explain the noise impacts on a short-term basis. Residents are very familiar with the short-term interference with our lives due to passing aircraft including the existing F16 jets. The EIS should provide short-term noise contours which show instantaneous maximum noise levels. This would explain the noise levels exposure by residents surrounding Truax Field.

b. Instantaneous noise contours should be provided for both the current F-16 and proposed F-35A fighter jets.

c. The noise contours should be placed on aerial photographs so residents can see the peak noise levels they will hear during fighter jet training missions.

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<sup>9</sup> City of Madison, Department of Planning & Community & Economic Development, F35 EIS Staff Analysis, September 10, 2019.



**Figure 3 - City of Madison Staff Analysis of Assisted Low-Income Housing and F-35 Noise Contours**

## **8. Provide the Noise Levels of F-16 and F-35A Fighter Jets**

a. The previously completed EIS for the sites at Burlington, Hill, Jacksonville, McEntire, Mountain Home and Shaw provided a table summarizing the SEL and Lmax noise generated by the current F-16 and proposed F-35A jets at each site. Similar tables were not provided for the five sites in the Truax EIS. This led to public confusion about the increase in loudness to be expected with the replacement of the F-16 by the new F-35A jets. The Truax EIS should be updated to clearly shown the difference in peak noise levels between the F-16 and F-35A jets. The difference in loudness is affected by the type of engine used in the F-16 and F-35 jets. This information should be provided for Truax Field. <sup>10</sup>

## **9. Explain the Noise Modeling Assumptions**

- a. All assumptions used for the noise analysis including, but not limited to jet testing schedule, airborne jet training schedules, flight patterns, and afterburner usage should be explained.
- b. How does each factor affect the results of the noise analysis?
- c. Did ANG staff at Truax Field participate in the selection of the noise modeling assumptions?
- d. Were multiple noise analyses conducted to determine how factors and assumptions affected the noise impacts?
- e. The EIS should be updated to show the flight patterns used for the current and proposed noise impact analyses.
- f. The EIS should explain if the amount of commercial air traffic used for the noise analysis is based on a current or projected traffic volumes for the county airport.

## **10. Rank Sites by Amount of Air Traffic**

a. Sites, like Truax Field, will have far greater noise impacts due to existing commercial air traffic. Currently military aircraft comprise 7% of all air traffic. A site without commercial traffic will have far less noise impact. Each of the sites should be ranked to clarify those with the least air traffic.

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<sup>10</sup> F-35 Lightning II vs F-16 Fighting Falcon, <https://militarymachine.com/f-35-vs-f-16/>

## **11. Evaluation of Jet Engine Testing**

a. Current testing of F-16 jet engines on the ground rattles windows and can be heard miles from Truax Field. The EIS should explain current and proposed engine testing procedures, incorporate this noise into the analysis, and provide separate short-term noise contours to show how far impacts of this noise extend from Truax Field.

## **12. Accuracy of the Noise Analysis**

a. Does the noise analysis presented in the draft EIS provide a worse-case, typical or best-case scenario?

## **13. Afterburner Usage**

a. The noise analysis in the draft EIS was conducted assuming 5% afterburner usage. Earlier this year, residents near Burlington International Airport requested a Supplementary Environmental Impact Statement since they discovered that afterburner usage would be far greater. In their letter to the Secretary of the Air Force they provided evidence that afterburner usage would be greater than 5% and stated:

*“The existing EIS explicitly was based upon the assumption that afterburners (AB) would be used only 5% of the time during takeoff, and even then only briefly. As a result, all of the noise modeling assumed zero afterburner use. We know now, from the Air Force itself, that afterburner use will occur much if not most of the time, and not briefly, with potentially severe impacts on the communities surrounding the Burlington airport.”<sup>11</sup>*

If higher afterburner usage is likely for Truax Field, the noise analysis should be updated with the actual value.

b. What is the afterburner usage at all other locations using the F-35A fighter jets?

c. Explain which other locations using the F-35A fighter jets have afterburner usage that would be comparable to that expected at Truax Field.

d. Whatever the maximum afterburner usage employed at Truax Field, the EIS should identify a mechanism to document and enforce this level of usage.

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<sup>11</sup> Law Office of James A. Dumont, Esq., P.C. to Matthew Donovan, Acting Secretary of the Air Force, re: F-35 Jets at Burlington Airport – Request for a Supplemental EIS, August 29, 2019.

#### **14. Noise Exposure by Employees at the County Airport and Truax Field**

- a. The EIS should provide the maximum noise levels experienced by employees at the county airport and Truax Field who work outdoors.
- b. The EIS should provide the occupational noise standards that apply to employees at the county airport and Truax Field who work outdoors.
- c. The EIS should describe the hearing protection is used by employees at the county airport and Truax Field who work outdoors.

#### **15. Noise Modeling Verification**

- a. What ANG or local airport records are available to verify the assumptions used for the noise analysis including, but not limited to:
  - a) Jet engine testing schedule
  - b) Airborne jet training schedules
  - c) Flight patterns of both military and commercial flights
  - d) Afterburner usage
- b. What procedures or personnel are available to enforce the assumptions used for the noise analysis including but not limited to:
  - a) Jet engine testing schedule
  - b) Airborne jet training schedules
  - c) Flight patterns of both military and commercial flights
  - d) Afterburner usage

#### **16. Expand the Sensitive Receptors Evaluated by the Noise Modeling**

Page 3-36 states:

*EO 13045, Protection of Children from Environmental Health Risks and Safety Risks (1997), requires federal agencies to, “identify and assess environmental health risks and safety risks that may disproportionately affect children,” and, “ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.” Additionally, children and the elderly are identified in the USAF Guide for Environmental Justice Analysis*

*under the Environmental Impact Analysis Process as sensitive receptors (AFCEC 2014). Children are defined as those individuals under the age of 18 years and the elderly are defined as those who are aged 65 years and older.*

The draft EIS does not adequately identify all the children and elderly that would be impacted by the F-35A jets, or does it evaluate the many potential health risks. To more accurately evaluate the impacts of Truax Field, the EIS should expand the noise analysis to include current and anticipated noise levels at all public and private pre-schools, schools, daycare facilities, nursing homes and community centers on the east and north-sides of Madison. These will include, but not be limited to, the following:

- Lake View Elementary School
- Gompers Elementary School
- Lindberg Elementary School
- Mendota Elementary School
- Emerson Elementary School
- Lowell Elementary School
- Kennedy Elementary School
- Marquette Elementary School
- Lapham Elementary School
- Black Hawk Middle School
- Sherman Middle School
- Whitehorse Middle School
- O’Keeffe Middle School
- Shabazz High School
- East High School
- Isthmus Montessori Academy

## **17. Health Effects of Noise Exposure**

a. As previously noted, the 65 dB DNL noise standard used for the noise modeling in the EIS is over 50 years old. It does not account for the impacts of noise including stress, sleep disturbance, and reduction in the educational performance of children. The EIS should provide a complete history of the 65 dB DNL noise standard used for the noise analysis including its first proposed by the FAA in 1964.

b. The EIS should describe the effects of noise on physical and mental health, and compare these noise levels to those produced by the proposed F-35A fighter jets.



c. The noise levels which result in the following known noise effects should be identified and compared with those expected from the F-35A fighter jets at Truax Field:

- a) Damage to the eardrum and cochlea hair cells of children
- b) Sleep disturbance
- c) Immune strength
- d) Autonomic reactions including heart rate and blood pressure increases
- e) Release of adrenaline and cortisol
- f) Fight or flight response
- g) Stress

d. Loud noise is a trigger for people with Post Traumatic Stress Disorder (PTSD) who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, rape or other violent personal assault.<sup>12</sup> PTSD affects approximately five percent of U.S. adults. The EIS should identify the noise levels which will trigger PTSD and estimate the number of people likely to be impacted by the F-35A fighter jets at Truax Field. There is a low-income housing complex for homeless veterans, many of whom have PTSD, located near Truax Field.

## **18. Noise Impacts on Learning and Education**

a. In its report on burdens due to environmental noise, the World Health Organization found that: 1) 50 % of children exposed to 65 decibels will develop noise induced cognitive impairment, 2) over 20 studies have shown negative effects of noise on reading and memory in children, and 3) noise exposure during critical periods of learning at school could potentially impair development and have a lifelong effect on educational attainment.<sup>13</sup> The EIS should clearly state that the 65 dB DNL noise standard used to evaluate the proposed F-35A fighter jets will not protect children.

b. Truax Field is located in an urban area with numerous schools. The noise analysis should be updated to identify the noise levels which have been shown to interfere with short and long-term educational performance. These levels should be compared with those expected from the F-35A fighter jets at each of the schools identified in these comments.

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<sup>12</sup> American What Is Posttraumatic Stress Disorder?

<sup>13</sup> World Health Organization, Burden of disease from environmental noise - Quantification of healthy life years lost in Europe, 2011, [https://www.who.int/quantifying\\_ehimpacts/publications/e94888/en/](https://www.who.int/quantifying_ehimpacts/publications/e94888/en/)

## **19. Noise Impacts on Children with Emotional Disabilities**

a. The Richardson School is on airport property and approximately a half mile west of the runway. It is expected to receive the highest noise impacts of any school. It provides alternative education for special needs children with the following disabilities and disorders:

- Autism spectrum disorders
- Intellectual disabilities
- Emotional/behavioral disabilities
- Orthopedic impairments
- Developmental delays
- Learning disabilities
- Traumatic brain injuries

The noise analysis should be updated to identify the noise levels which have been shown to cause mental and physical health effects such as:

- a) Damage to the eardrum and cochlea hair cells of children
- b) Sleep disturbance
- c) Immune strength
- d) Autonomic reactions including heart rate and blood pressure increases
- e) Release of adrenaline and cortisol
- f) Fight or flight response
- g) Stress
- h) Interfere with short and long-term educational performance of children with special needs.

These levels should be compared these with those expected from the F-35A fighter jets.

## **20. Obtain Medical Expertise to Evaluate Noise Impacts**

The draft EIS was prepared using the outdated noise standard of 65 dB DNL. There are numerous health effects, especially to children, that will occur at this average noise level and as a result of exposure to short-term high noise levels. None of the EIS preparers were medically trained personnel who would have the expertise needed to accurately evaluate the noise impacts.

In her October 31, 2019 letter to the editor of the Capital Times in Madison, Dr. Elizabeth Neary, a pediatrician, stated:

*"I have dedicated my life to caring for children, which is why I am alarmed by the proposal to base F-35 military jets in our community.*

*The Air Force concluded in its draft Environmental Impact Statement that locating the F-35s at the Truax Air National Guard Base would have a disparate negative impact on children, people of color and low-income individuals who live in dense populations in and around the Dane County Regional Airport. Approximately a dozen K-12 schools and 15 child day care centers are in and around the areas where the most intense noise is predicted.*

*From my own experience and research, I believe that many of Madison's children will be harmed by the intense noise generated by these military jets that have no need for placement in a dense residential community. The early years of a child's life are critical for the development of hearing. According to the Office of Disease Prevention at the National Institutes of Health, children's ear canals continue to develop during the early years of life, and loud noises during this stage of development can permanently damage their hearing.*

*The noise created by the F-35s is an impulse sound — a brief, very loud noise. Impulse noise causes more severe hearing loss than steady state noise. The body has a reflex mechanism which protects the ear when exposed to loud, continuous noise. The reflex is slow, and thus does not provide protection to the ear against sudden impulsive sounds. Hence, the average day-night noise exposure (DNL) measured over a 24-hour period in the draft EIS does not measure the true impact of noise on children.*

*Health impacts of noise pollution include overproduction of stress hormones, interruption of sleep, ringing in the ear, negative effects on mental health, increased blood pressure and impacts on cardiovascular disease.*

*For children, the impacts are far greater. Heightened noise interruptions can lead to delayed speech development, reduced attention, impaired concentration, long-term memory issues and decreased math and reading comprehension. The EIS includes a section on the impact of noise on children, citing studies that have found a linear relation between chronic aircraft noise exposure and impaired reading comprehension and recognition memory.*

*With about a dozen K-12 schools and approximately 15 day care facilities surrounding Truax Field, this proposal poses potential long-lasting damaging impacts on the children that live within our community. According to the City of Madison's 2018 Neighborhood Indicators Project, the kids who live in the Truax neighborhood are struggling even before they enter school, with only 48% of them considered to be "kindergarten ready."*

*One of the schools closest to the predicted intense noise is Hawthorne Elementary, where most children are low-income and of color. In a city struggling to overcome persistent racial disparities, flying an intensely noisy aircraft over their elementary school more frequently will only exacerbate these disparities.*

*If we truly care about the children in our community, we should act to protect them by adamantly opposing the placement of F-35 military jets in Madison.”*

The EIS should be updated with the assistance of medically trained staff to fully evaluate the anticipated noise impacts on children living near Truax Field.

## **21. Noise Impacts and Violence**

a. Research suggests that a 1 decibel increase in noise levels increases the assault rate by 2.6%.<sup>14</sup> The neighborhoods surrounding Truax Field have a disproportionate amount of assaults within Madison.<sup>15</sup> The draft EIS should be updated to:

- a) provide a summary of current crime rates in the neighborhoods surrounding Truax,
- b) estimate how noise from the F-35A squadron will increase crime rates
- c) estimate the cost to victims
- d) estimate the need for additional law enforcement to mitigate this increase in violence

b. Based on the increase in noise and the associated assault rate, a map should be provided showing the anticipated change in crime in neighborhoods surrounding Truax Field due to the F-35A squadron.

## **22. Noise Impacts on Pets**

a. During public meetings to discuss the draft EIS, numerous residents have voiced concerns about pets, primarily dogs, which panic due to the loud noise when the current F-16 fighter jets pass overhead. The EIS should be updated to explain how dogs are affected by loud noises.

b. The EIS should identify current and anticipated frequency in which noise from fighter jets will cause dogs to panic within a 3-miles area around Truax Field.

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<sup>14</sup> Noise Pollution and Violence, Timo Heer, <http://www.lse.ac.uk/GranthamInstitute/event/noise-pollution-and-violence-timo-heer/>

<sup>15</sup> <https://communitycrimemap.com/?address=Madison,%20WI>

## 23. Property Value Reduction due to Noise Levels

a. There is a documented reduction in property values due to an increase in aircraft noise. “Although there are many socio-economical factors which must be considered because they may negatively affect property values themselves, all research conducted in this area found negative effects from aviation noise, with effects ranging from a 0.6 to 2.3 percent decrease in property value per decibel increase of cumulative noise exposure.”<sup>16</sup> The EIS should determine the current property values within 3 miles of Truax Field and estimate the reduction in values due to the increase in noise levels from the proposed F-35A fighter jets.

## 24. Noise Mitigation Obligations

- a. The noise analysis for Truax Field concludes there are 551 people currently living within the 65 dB DNL noise level. What is the legal or policy obligation of the Air Force, Air National Guard and Dane County Regional Airport to provide noise mitigation to these people?
- b. The noise analysis for Truax Field concludes there will be 2,781 people living within the 65 dB DNL noise level. What is the legal or policy obligation of the Air Force, Air National Guard and Dane County Regional Airport to provide noise mitigation to these people?
- c. Households that currently have aviation easements with the county airport may not qualify for noise mitigation. The draft EIS should be updated to identify households within the 65 dB DNL which currently have aviation easements and if these easements can be redacted to allow for mitigation.

## 25. Noise Mitigation Costs

- a. What is the range of costs and anticipated schedule to provide noise mitigation to the 551 people currently living within the 65 dB DNL at Truax Field?
- b. We estimate that the costs to add noise abatement measures to existing homes or relocate residents in Madison is between \$26 million<sup>17</sup> and \$285 million<sup>18</sup>. What is the range of costs and

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<sup>16</sup> <http://socnw.org/pdf/Effects%20of%20noise%20on%20property%20values%20summary.pdf>

<sup>17</sup> Minneapolis St Paul Metropolitan Airports Commission, When Your Home Becomes Eligible, The \$26 million is based on the original \$20,000 noise abatement payment assuming it is applied to each of the 1,318 households inside the 65 dB DNL for Truax Field. The current payment is \$19,532.54. <https://www.macnoise.com/noise-mitigation-program/when-your-home-becomes-eligible>,

<sup>18</sup> The \$285 million is based on purchase of all 1,318 households inside the 65 dB DNL for Truax Field assuming an average value of \$216,838. This the average home value reported for 2018 for the Near North area of Madison, Wisconsin in the Wisconsin State Journal.

anticipated schedule to provide noise mitigation to the 2,781 people who will live within the 65 dB DNL after the F-35A fighter jets arrive at Truax Field?

c. The estimate of noise mitigation costs should identify the types and costs of home improvements needed to add noise insulation, and the current value of homes within the 65 dB DNL.

d. The EIS should explain who and what structures will be eligible for noise mitigation?

e. Besides residences, will public buildings, for profit and non-profit businesses, be eligible, and what is the estimated cost for noise mitigation?

f. Which residences, such as mobile homes, are not be eligible for noise abatement but need to be demolished or moved, and what is the estimated cost to demolish or move these homes?

## **26. Funding Sources for Noise Mitigation**

a. The draft EIS states that the county airport is responsible for providing noise mitigation. The EIS should be updated to identify alternative sources of funding for noise mitigation if the county airport does not fully cooperate. For example, can the City of Madison establish a toll or fee for passengers at the county airport to develop a noise abatement fund?

b. Can the Air Force include funds for noise mitigation in its budget for the beddown the F-35 jets at Truax Field?

c. Can the Air Force buy surrounding homes and businesses as part of the cost of the project?

d. Can Congress earmark funds for noise mitigation in its budget for the beddown of the F-35 jets at Truax Field?

## **27. Success of Each Site for Providing Noise Mitigation**

a. The EIS for Truax Field concludes there will be 2,766 people exposed to noise greater than 65 dB DNL. The EIS states the Air Force will provide no funds for noise abatement. The FAA does allow airports to fund noise abatement for people living in the 65 dB DNL zone. Despite growing air traffic and revenue, the Dane County Airport has rejected neighborhood pleas to address existing noise impacts and has undertaken few noise mitigation measures. The last noise evaluation conducted by

the county airport was in 1996.<sup>19</sup> At that time, over 2,000 households were found to be living within the 65 dB DNL but received little if any noise mitigation.<sup>20</sup> The EIS concludes there are 551 people currently living within the 65 dB DNL but the county airport has not provided noise mitigation to these people. We have little confidence the county airport can protect those who will now be impacted by the noise from the F-35A fighter jets.

The EIS should evaluate the history of noise mitigation at each site, determine the likelihood that noise mitigation will be provided to the people impacted by the noise from the F-35A fighter jets, and provide a schedule for implementing noise mitigation.

## **28. Noise Monitoring**

The EIS noise analysis is based on modeling and is speculative. Noise monitoring would provide accurate measurements to assess short and long-term noise exposure.

- a. For each site, identify any existing noise monitoring networks used to measure actual noise levels.
- b. To help verify the results of the noise analysis presented in the EIS, where should continuous noise monitoring stations be located?
- c. Provide examples of noise monitoring systems in use at other airports to determine actual noise exposure.

## **29. Ground Water Contamination Remediation Obligations**

- a. Operations at Truax Field are significantly responsible for contaminating local groundwater with fire-fighting chemicals, including PFAS. Well 15 has been shut down but residents have already been exposed to PFAS from this well for many years. While the EIS notes the contamination, it provides no assurance the ANG or Air Force will investigate and clean up the contamination. Neither does it provide estimates of the extensive liabilities faced by Truax Field.

At its September 23, 2019 meeting, the Madison Water Utility Board made the following statement concerning the contamination of the city's drinking water by the Air National Guard:

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<sup>19</sup> Federal Aviation Administration, Record of Decision, Dane County Regional Airport, Madison, Wisconsin, June 1996, [http://www.faa.gov/airports/environmental/records\\_decision/media/rod\\_madison.pdf](http://www.faa.gov/airports/environmental/records_decision/media/rod_madison.pdf)

<sup>20</sup> <https://sasyna.org/wp-content/uploads/attachments/letter-to-joe-parisi-with-airport-noise-control-recommendations-8-oct-12.pdf>

*“In the recent months, MWU, the Board and citizens of Madison have been working together to understand, quantify and assess the effects of per- and polyfluoroalkyl substances, or PFAs, now found in Well 15. The well is located less than a mile from Truax Field, where PFAs chemicals have been detected and reported at high levels in groundwater. In our community, there is considerable concern and demand for action to respond to this risk. The Board is actively engaged in exploring actions and uniting all partners in understanding and plans to protect against a public health threat.*

*The Air National Guard Base has been identified as a major source of PFAs contamination. While an investigation is underway, steps required by the Wisconsin DNR (WDNR) to further investigate the extent of the contamination have not yet been taken, and the Department of Defense has not considered this a priority site for mitigation.*

*Further, the Board concurs with the following section of the City of Madison Planning Division F35 EIS Staff Analysis, published September 10, 2019: The Department of Defense and the Air National Guard cannot safely and legally perform the planned construction activities without a complete site investigation that defines the extent and nature of PFAs contamination in soil and groundwater. The WDNR will require a materials management plan for any areas of the base impacted by construction, describing how excavated soil and dewatering will be managed. The 115 FW does not have enough information presently to do this. This investigation should be completed with full coordination with WDNR, and remediation of the contamination should take place concurrently in the event of a F-35 transition.*

*This is not an acceptable position for Madison and its residents, who rightfully expect to have clean and safe drinking water available to them without bearing the high cost of additionally treating or replacing productive drinking water wells.*

*Until further steps are taken to define the extent, nature and probable path of the soil and groundwater contamination, MWU’s rate payers are left with an unknown cost and timeline should treatment be needed at Well 15.*

*The Madison Water Utility Board urges the Department of Defense and United States Air Force to complete the PFAs investigation, coordinating fully with WDNR; remediate the contamination, and assume the costs borne by the Madison Water Utility rate payers to provide adequate treatment for PFAs at Well 15 or replace the affected well. We look forward to the Air Force and the 115 Fighter Wing acting as good neighbors, who share our goal of protecting the safety and health of our shared community, before adding additional infrastructure and jet capability at the Truax base.”*



Comments on the draft EIS submitted by the Wisconsin Department of Natural Resources explains the responsibilities of the ANG at Truax Field for investigation, cleanup and control of contamination released during construction.<sup>21</sup>

Similar to the ANG at Truax Field, others found to have contaminated groundwater with PFAS have been ordered to cleanup. On October 11, 2019, the state Department of Natural Resources ordered the Dane County Regional Airport to look into the contamination and come up with a cleanup plan.<sup>22</sup>

On October 18, 2019, the state Department of Natural Resources has ordered the Milwaukee Mitchell International Airport to determine the source and extent of the contamination, prevent future discharges and develop a cleanup plan. The findings made public Friday by state officials suggest the compounds, known generically as PFAS, are making their way to Lake Michigan, the source of drinking water for nearly 900,000 residents in metropolitan Milwaukee.<sup>23</sup>

The EIS should be updated to explain the legal and policy obligation of the Air Force and Air National Guard to investigate and remediate existing contamination of groundwater and closure of Municipal Well 15 by PFAS (per- and polyfluoroalkyl substances).

b. The draft EIS does not discuss the many other toxic contaminants discovered at Truax Field including petroleum compounds, PCBs, metals, PCE, TCE, and others. These have not been fully remediated. The EIS should be updated to review other non-PFAS chemicals which have contaminated surrounding soils and groundwater at Truax Field. What is the legal and policy obligation of the Air Force and Air National Guard to investigate and remediate existing contamination of groundwater by other contaminants besides PFAS?

### **30. Ground Water Contamination Remediation Costs**

a. On August 6, 2019, it was reported that Johnson Controls International estimates it will require \$140 million to address pollutants from firefighting foam in northeastern Wisconsin.<sup>24</sup> The EIS should be updated to provide an estimate of the cost to the Air Force and ANG to investigate and remediate existing contamination of groundwater by PFAS at Truax Field.

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<sup>21</sup> A. Mednick, Wisconsin Department of Natural Resources, Comments on Draft Environmental Impact Statement, October 30, 2019.

<sup>22</sup> Channel 3000, DNR says Dane County Regional Airport responsible for PFAS found in surface water on property, October 11, 2019, <https://www.channel3000.com/news/dnr-says-dane-county-regional-airport-responsible-for-pfas-found-in-surface-water-on-property/1131356757>

<sup>23</sup> Journal Sentinel, DNR orders Mitchell Airport to cleanup 'forever' chemicals detected in Lake Michigan tributaries, October 18, 2019. <https://www.jsonline.com/story/news/local/milwaukee/2019/10/18/stormwater-mitchell-airport-contains-forever-chemicals/4023687002/>

<sup>24</sup> Wisconsin Public Radio, Johnson Controls To Use \$140M For PFAS Cleanup, August 6, 2019, <https://www.wpr.org/johnson-controls-use-140m-pfas-cleanup>

b. What is the estimated cost to the Air Force and Air National Guard to investigate and remediate existing contamination of groundwater by other contaminants besides PFAS?

### **31. Starkweather Creek Contamination Remediation Obligations**

a. PFAS has recently been measured in fish of Starkweather Creek. In its report on the fish sampling, the Wisconsin Department of Natural Resources stated: “Truax Field Air National Guard Base historically held fire suppression training activities with AFFF, a now-known source of PFAS contamination. The headwaters of the West Branch of Starkweather Creek originate on or near Truax Field and the Dane County Regional Airport.”

What is the legal and policy obligation of the Air Force and Air National Guard to investigate and remediate existing contamination of Starkweather Creek?

### **32. Starkweather Creek Contamination Remediation Costs**

a. An example of the potential liability to the Air Force and ANG is the 2018 settlement between the state of Minnesota and the 3M Company for damaging drinking water and natural resources with PFAS. It required a grant of \$850 million.<sup>25</sup>

The EIS should include a cost estimate for the Air Force and ANG to investigate and remediate the existing contamination of Starkweather Creek.

### **33. Legality of Construction Prior to Remediation**

a. At its September 23, 2019 meeting, the Madison Water Utility Board stated:

*“Further, the Board concurs with the following section of the City of Madison Planning Division F35 EIS Staff Analysis, published September 10, 2019: The Department of Defense and the Air National Guard cannot safely and legally perform the planned construction activities without a complete site investigation that defines the extent and nature of PFAs contamination in soil and groundwater. The WDNR will require a materials management plan for any areas of the base impacted by construction, describing how excavated soil and dewatering will be managed. The 115 FW does not have enough information presently to do this. This investigation should be completed with full coordination with*

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<sup>25</sup>3M and PFCs: 2018 settlement, <https://www.pca.state.mn.us/waste/3m-and-pfcs-2018-settlement>

*WDNR, and remediation of the contamination should take place concurrently in the event of a F-35 transition.”*

The EIS should explain if the ANG at Truax Field can begin any construction of facilities for the new F-35A fighter jets prior to investigating and cleaning up its contamination of groundwater by PFAS.

### **34. Soil, Groundwater and Surface Water Contamination During Construction**

a. The extensive construction needed to accommodate this project will disrupt soils contaminated with PFAS and other chemicals which will run off into adjacent Starkweather Creek with stormwater. The EIS dismisses these impacts as “not significant” by assuring that Truax ANG will follow stormwater laws. However, the existing soil and groundwater contamination has been caused by the failure of Truax ANG staff to comply with existing laws.

The EIS should be updated to include extensive details about how the ANG staff at Truax Field will comply with specific city, county, and state stormwater laws to prevent release of contamination all over the base into Starkweather Creek.

### **35. Chemical Usage by F-35A Operations**

a. The EIS doesn’t list the types of chemicals that will be required for F-35A operations or how they could be released into the environment. Citizens and alders submitted comments during the scoping phase asking that the EIS include this information. The EIS should be updated to include specific types and amounts of chemicals required for F-35A operations, how and where they will be used, and all the potential ways they could be released into the environment.

### **36. Air Quality Impacts of Criteria Air Pollutants**

a. Air pollution from airports has been shown to increase exposure to surrounding residents.<sup>26 27</sup> The draft EIS does not provide any evaluation of exposure of residents living immediately adjacent to Truax Field. The additional emissions from the F-35A squadron will aggravate any existing health problems such as asthma for the residents living near the base and county airport.

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<sup>26</sup> Aviation-Related Impacts on Ultrafine Particle Number Concentrations Outside and Inside Residences near an Airport, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5822220/>

<sup>27</sup> Emissions from an International Airport Increase Particle Number Concentrations 4-fold at 10 km Downwind, <https://pubs.acs.org/doi/full/10.1021/es5001566>

The EIS should be updated to review research on air pollution from airports and exposure to surrounding residents. Current and anticipated impacts due to the new F-35A squadron and other air traffic can be estimated using a dispersion modeling analysis. The Emissions & Dispersion Modeling System (EDMS) prepared by FAA was specifically developed for the assessment of airport air quality. EDMS can be used to predict downwind concentrations of air pollution emissions and compare them with the National Ambient Air Quality Standards for criteria air pollutants.

### **37. Air Quality Impacts of Hazardous Air Pollutants**

The draft EIS mentions the 187 hazardous air pollutants (HAP) regulated by USEPA under the Clean Air Act. However, it provides no emission estimates and no evaluation of the health hazards presented by these emissions. Nor does the EIS provide estimates of the over 500 HAP regulated under Chapter NR 445, Wisconsin Administrative Code, which are regulated by the Wisconsin Department of Natural Resources. These rules include allowable emission rates and exposure standards for the general public.

A 2007 report on research needs for hazardous air pollutant (HAP) emissions for aircraft provided emission factors for 57 different HAP. <sup>28</sup>

A 2003 report prepared for the FAA on emissions from aircraft presented the following conclusions: <sup>29</sup>

1. The U.S. EPA has listed the following 14 HAPs (12 individual substances and two select groups of complex organic compounds) they believe are present in the exhaust of aircraft and/or their ground support equipment (GSE): 1,3-Butadiene, nHexane, Acetaldehyde, Xylene, Acrolein, Propionaldehyde, Benzene, Styrene, Ethylbenzene, Toluene, Formaldehyde, Lead compounds, Polycyclic Organic Matter, (POM) as 7 Polycyclic Organic Hydrocarbons (PAH), and POM as 16 PAH.
2. Formaldehyde appears to be the most prevalent HAP in aircraft exhaust followed by acetaldehyde, benzene, and toluene.
3. Ten individual HAPs comprise the vast majority of HAPS that are reported to occur in aircraft and/or GSE exhaust: Formaldehyde, 1,3-Butadiene, Acetaldehyde, Xylene, Benzene, Lead, Toluene, Naphthalene, Acrolein, and Propionaldehyde.

A 1999 report prepared by the Air Force summarized testing and measurement of the exhaust products from military aircraft and revealed the following HAPs in descending order of abundance: formaldehyde, benzene, toluene and xylene.<sup>30</sup>

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<sup>28</sup> AIRPORT COOPERATIVE RESEARCH PROGRAM ACRP REPORT 7, Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis, Draft Report, December 21, 2007.

<sup>29</sup> SELECT RESOURCE MATERIALS AND ANNOTATED BIBLIOGRAPHY ON THE TOPIC OF HAZARDOUS AIR POLLUTANTS (HAPS) ASSOCIATED WITH AIRCRAFT, AIRPORTS, AND AVIATION Prepared for Federal Aviation Administration Office of Environment and Energy, July 1, 2003.

<sup>30</sup> USAF, 1999, Aircraft Engine and Auxiliary Power Unit Emissions Testing, (Vols. 1 & 2) Detailed Sampling Approach and Results, prepared by Environmental Quality Management, March, 1999.

The 2003 report on HAP emissions prepared for the FAA concluded that the Emissions & Dispersion Modeling System (EDMS) prepared by FAA and specifically developed for the assessment of airport air quality is also suitable to predict the dispersion and downwind concentrations of HAP emissions.

The draft EIS for Truax Field should be updated to estimate HAP emissions from current and proposed aircraft operations, use EDMS to model their dispersion, and then compare the downwind concentrations with current USEPA and WDNR air quality standards. Without an analysis of HAP emissions, the health risks posed by the new F-35A fighter jet squadron are not known.

### **38. Impacts on Cherokee Marsh**

a. North of Truax Field is Cherokee Marsh Conservation Park and Cherokee Marsh State Natural Area. A large portion is included in the 65 dB DNL noise level predicted in the EIS. However, there is no evaluation of the impacts to wildlife in this unique area.

In a recent letter to the editor of the Capital Times, the Friends of Cherokee Marsh explained their concerns:<sup>31</sup>

*"We respectfully request that the final Environmental Impact Statement regarding the addition of the F-35 plane to Truax Field in Madison include consideration of the effects of noise and other pollution on the ecologically important Cherokee Marsh Conservation Park and Cherokee Marsh State Natural Area.*

*The Cherokee Marsh is the largest wetland in Dane County and has been declared a Wetland Gem by the Wisconsin Wetlands Association. Most of Cherokee Marsh's over 2000 acres of wetland lies immediately to the north and west of the north-south runway of the Dane County Airport.*

*There is one active bald eagle nest in the marsh and another to the west of the marsh. Though the bald eagle is no longer on the Endangered Species List, it is still protected under the Migratory Bird Act and the Bald and Golden Eagle Protection Act, which prohibits disturbing these rare birds.*

*Identified state-listed species in Cherokee Marsh include: Henslow's sparrow, Threatened; red-headed woodpecker, Special Concern; white lady's slipper, Threatened; glade mallow, Special Concern; and Butler's garter snake, Special Concern.*

*Effects of the proposed F-35s on sensitive species that live in or visit Cherokee Marsh are absent from the EIS. It does not make sense to survey the developed airport itself for federal- and state-listed species and not review the marsh.*

*The board of the Friends of Cherokee Marsh voted unanimously on Sept. 18 to ask that you correct this omission."*

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<sup>31</sup> Capital Times, Anita Weier: F-35 EIS should consider effects on Cherokee Marsh, [https://madison.com/ct/opinion/mailbag/anita-weier-f--eis-should-consider-effects-on-cherokee/article\\_332a5d2f-a3c1-5552-82fd-6c40304632b5.html](https://madison.com/ct/opinion/mailbag/anita-weier-f--eis-should-consider-effects-on-cherokee/article_332a5d2f-a3c1-5552-82fd-6c40304632b5.html)

The EIS should be updated to provide a survey of sensitive species in and around Truax Field and the Cherokee Marsh Conservation Park and Cherokee Marsh State Natural Area, and evaluate the impacts of the F-35A fighter jets on these species.

b. These concerns for Cherokee Marsh are reiterated in comments on the draft EIS from the Wisconsin Department of Natural Resources.<sup>32</sup> The WDNR states:

*According to the dEIS, F-35A aircraft operations at the 115 FW would increase the area of land falling within the 65-plus dB DNL noise contour by 1,320 acres. Table WI3.5-2 (pg. WI-69) incorrectly reports that 768 acres (or 58%) of this additionally-impacted land is agricultural with only 17 acres (or 1%) in parks and open space.*

*In fact, most of the area northwest of the airport represented as “Agriculture” in Figure WI3.5-2 (pg. WI-70) is part of Cherokee Marsh, a 2,000-acre area owned and managed for nature conservation and outdoor recreation by the State of Wisconsin (DNR), City of Madison, and Dane County. Based on a GIS analysis conducted by the Wisconsin DNR, approximately 550 acres (or 42%) of the land that would be added to the 65-plus dB DNL zone lies within the boundaries of three protected areas, including 286 acres of the Cherokee Marsh State Fishery Area, 121 acres of the City of Madison’s Cherokee Marsh North Unit, and 143 acres of the Cherokee Marsh State Natural Area (SNA). Of the affected area within the SNA, 107 acres (75%) would experience a larger increase, from the current range of 60-65 dB to a projected range of 70-75 dB.*

The WDNR provides resources for evaluating the noise impacts on area wildlife which should be included in the EIS.

### **39. Accident and Malfunction Frequency**

a. The draft EIS states that existing F-16 aircraft have had 374 Class A mishaps and 335 aircraft have been destroyed. The EIS should be updated to identify any mishaps or destroyed aircraft which specifically have occurred at Truax Field.

b. Besides Class A mishaps, the EIS should be updated to identify other less serious failures that have required an unanticipated end to a training flight at Truax Field.

c. The EIS should be updated to provide a comparison of the historical mishaps and accidents for the F-16 jets versus those which have been experienced to date with the F-35A jets.

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<sup>32</sup> A. Mednick, Wisconsin Department of Natural Resources, Comments on Draft Environmental Impact Statement, October 30, 2019.

d. The fighter jets at Truax Field have dumped fuel tanks during malfunctions. The F-35 jet is expected to carry twice the amount of fuel than an F-16. An estimate should be made of the frequency in which fuel tanks will be dumped and the impacts.

#### **40. Impacts of Fires**

a. The draft EIS states:

*“The F-35A aircraft has a 42 percent composite material by weight, while the F-16 aircraft has 13 percent. One disadvantage of composite materials is that they have the potential to degrade under extreme temperatures, resulting in the production of toxic fumes and airborne respirable fibers. Laboratory studies have identified respirable fiber products and toxic gases (including high levels of CO, NOx, and hydrogen cyanide) from burning composite materials.”*

Additionally, the Air Force itself has concluded the F-35 should be placed in a high-risk category for hazards at crash sites:

*Some aircraft should automatically be in the high-risk category due to the high percentage or large quantity of composite materials within the airframe. For example, the B-2, F-22, AV-8B, and F-35 would be in this category.* <sup>33</sup>

The EIS should be updated to provide a complete list of the contaminants released in the event of an F-35A fighter jet fire.

b. The EIS should be updated to identify the kinds of fire-fighting chemicals that are required to extinguish a fire in a burning F-35? What are the impacts of these chemicals on human health and the environment (i.e. soil, groundwater, surface water, fish and other wildlife)?

c. The EIS should be updated to estimate off-site exposure to residents living adjacent to Truax Field due to a F-35A fire, preferably using dispersion modeling.

#### **41. Impacts of Stealth Coating**

a. The EIS should be updated to identify the chemical constituents in the stealth coating.

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<sup>33</sup> Air Force Research Laboratory, Composite Material Hazard Assessment at Crash Sites, January 2015.

- b. The Royal Air Force reports that the stealth coating is wearing off more frequently than anticipated.<sup>34</sup> The EIS should be updated to identify the chemical constituents released in the fumes and wastewater from the wearing off of the stealth coating.
- c. The EIS should be updated to identify the chemical constituents released in the fumes and wastewater from the re-application of the stealth coating and occupational safety precautions required for the re-application.
- d. The EIS should be updated to identify the chemical constituents released if the stealth coating is involved in fire.

## **42. Nuclear Weapons**

- a. Since 1983, the City of Madison has been designated as a nuclear-free zone by our Common Council.<sup>35</sup> This was reaffirmed on August 10, 2019 by the Common Council which proclaimed August 6, 2019 Hiroshima Day and August 9, 2019 Nagasaki Day. Does this nuclear-free zone designation eliminate Truax Field for consideration for housing nuclear weapons?
- b. It has been reported that “because of the F-35’s stealth technology and the accuracy of its B61-12 bomb, the F-35 is considered a first strike nuclear weapon.”<sup>36</sup> The EIS should explain the types of nuclear weapons the F-35 is capable of using.
- c. The EIS should explain the likelihood the Air Force and Air National Guard will equip F-35A fighter jets with nuclear weapons at any point in the future.
- d. The EIS should explain whether the general public will be informed of the decision to equip the F-35A fighter jets at Truax Field with nuclear weapons.
- e. The EIS should explain the likelihood that Truax Field will become a target for enemies of the U.S. due to beddown of F-35A fighter jets.
- f. The EIS should explain if the Air Force would hold a public comment period on this decision if it should add nuclear weapons capability to Truax Field.

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<sup>34</sup> [http://www.defense-aerospace.com/article-view/release/198270/f\\_35-%E2%80%99Cstealth%E2%80%9D-coating-wearing-off-faster-than-expected.html](http://www.defense-aerospace.com/article-view/release/198270/f_35-%E2%80%99Cstealth%E2%80%9D-coating-wearing-off-faster-than-expected.html)

<sup>35</sup> <http://madisonvfp.org/no-nukes-back-from-the-brink-physicians-for-social-responsibility-psr/>

<sup>36</sup> VT Digger, Rosanne Greco: The F-35 and nuclear capability, April 23, 2019, <https://vtdigger.org/2019/04/23/rosanne-greco-f-35-nuclear-capability/>



#### **43. Safety of Madison and Surrounding Region**

- a. The EIS should explain if and how the F-35A fighter jets at Truax Field will increase the risk of military attack of Madison and the surrounding region.
- b. The EIS should explain if and how the F-35A fighter jets at Truax Field will improve the safety of the population in Madison and the surrounding region.

#### **44. Options for Future Roles of the Air National Guard at Truax Field**

- a. The EIS does not evaluate the options available to Truax Field should it not be selected for the beddown of the F-35A fighter jets. The EIS should be updated to provide a history of the various missions of the 115<sup>th</sup> Fighter Wing at Truax Field.
- b. The EIS should explain if, when the mission of the 115<sup>th</sup> Fighter Wing changes, is the Air Force or Air National Guard required to inform the general public.
- c. The EIS should explain, if Truax Field is not selected for the proposed F-35A squadron, will the base be closed or lose its flying mission.
- d. The EIS should explain what flying and non-flying roles the Air National Guard at Truax Field could fulfill if it is not selected for the F-35A fighter jet squadron. Flying roles may only include help during emergency situations or continued use of the F-16 fighter jets. The description of each of these roles should include examples at other bases and how these roles would affect the number and types of employees compared to the current staffing levels.

#### **45. Economic Benefits**

- a. The draft EIS states that 64 jobs will be created by the addition of the F-35A squadron. It is clear that the majority of the environmental impacts will occur in the neighborhoods adjacent to Truax Field but is very unlikely the new employees of Truax Field will live in these neighborhoods. The EIS should explain where the 64 new employees are expected to live.
- b. To better explain where the economic benefits of Truax Field occur, the EIS should provide a summary of the zip codes where the current employees of Truax Field live.
- c. The EIS should explain measures Truax Field could implement to return more of its economic benefits to the neighborhoods which are expected to receive the highest impacts.

d. The enormous \$2 billion cost of the new F-35A squadron will commit resources that could be used for alternative purposes. These alternatives should be identified. For example, in 2018 Toyota announced a project to build a new auto plant in Alabama for \$1.6 billion that would employ 4,000 workers.

#### **46. Relationship between County Airport and Truax Field**

a. It is understood that Truax Field leases a portion of the county airport. The EIS should describe the features of this lease including the date of the current version, and payments and services that are required by each party.

#### **47. Options for Challenging the EIS**

a. The EIS should identify the administrative and legal options which are available to Madison residents to challenge the final EIS if it fails to address comments and concerns raised about the beddown of the F-35A jets at Truax Field.

#### **48. Response to Madison Common Council Opposition**

a. On September 19, 2019, the Madison Common Council adopted a resolution which concluded with the following statement:<sup>37</sup>

*“BE IT FURTHER RESOLVED, that the Madison Common Council requests that the Air National Guard reconsiders the selection of Truax Field as a preferred location until and unless the findings of the EIS are shown to misrepresent the significant environmental impacts to those living, working, and visiting the north and east sides of Madison.”*

How does opposition of the Madison Common Council influence the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field?

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<sup>37</sup> <https://madison.legistar.com/View.ashx?M=F&ID=7719760&GUID=A53F3230-1F25-42E7-93DC-69AB5E12D8E6>

#### **49. Response to Dane County Board of Supervisors Opposition**

a. On September 19, 2019, 15 members of the Dane County Board of Supervisors signed a letter for submission to Matthew Donovan, Acting Secretary of the Air Force. It had the following closing statement:<sup>38</sup>

*“Supporting policies and practices that increase inequities is in direct conflict with the Dane County Board’s strong commitment to equity. Therefore, we, the undersigned members of the Dane County Board of Supervisors, oppose the location of the proposed squadron of F-35A fighter jets at Truax Field.”*

The EIS should explain how opposition of the Dane County Board of Supervisors influences the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field.

#### **50. Response to the Madison Metropolitan School District Board of Education Opposition**

a. On September 23, 2019, the Madison Metropolitan School District Board of Education adopted a resolution opposing the F-35A fighter jets at Truax Field. The resolution concluded with the following statements:<sup>39</sup>

*WHEREAS, the draft EIS acknowledges the proposed action will have a disproportionate impact on people of color, and a City of Madison analysis further acknowledges that there are concentrations of poverty and people of color just outside the 65 decibel contour;*

*NOW, THEREFORE BE IT RESOLVED that the MMSD Board of Education concludes that the issues identified in the draft EIS will negatively impact learning in our schools, reduce the property tax base, decrease school enrollment in the affected area, and disproportionately affect children and families of color and people with low incomes; and,*

*BE IT FINALLY RESOLVED that the MMSD Board of Education requests that the Air National Guard reconsider Truax Field as a preferred location for the F-35A Operational Beddown unless the draft EIS is found to significantly misrepresent negative impacts on learning, children and the community.*

The EIS should explain how opposition of the Madison Metropolitan School District Board of Education will influence the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field.

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<sup>38</sup> [https://drive.google.com/file/d/1cvGmaky9lpxxD-lcBDfG0pMlaNfwo\\_JE/view?usp=sharing](https://drive.google.com/file/d/1cvGmaky9lpxxD-lcBDfG0pMlaNfwo_JE/view?usp=sharing)

<sup>39</sup> [https://go.boarddocs.com/wi/mmsd/Board.nsf/files/BG7K3Q4FEB29/\\$file/BOE%20resolution%20on%20F-35s%20at%20Truax-Final.pdf](https://go.boarddocs.com/wi/mmsd/Board.nsf/files/BG7K3Q4FEB29/$file/BOE%20resolution%20on%20F-35s%20at%20Truax-Final.pdf)

## **51. Response to Northside Planning Council Opposition**

a. The Northside Planning Council represents neighborhoods on Madison's northside adjacent to Dane County Regional Airport and Truax Field. It adopted a statement opposing the beddown of the F-35A fighter jet squadron at Truax Field.<sup>40</sup> The statement includes the following comments:

*"This proposal is projected to create only 64 jobs, while making 132 homes uninhabitable, gutting property values, disrupting the education and development of our children and leaving thousands of people needing to move or bear what the military calls unlivable noise conditions... We call on our elected leaders to have the moral courage to speak out and join us in protecting the well-being of our local economy, environment and, most importantly, our community."*

The EIS should explain how the opposition of the Northside Planning Council influences the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field?

## **52. Response to SASY Neighborhood Association Opposition**

a. On September 10, 2019, the Schenk-Atwood-Starkweather-Yahara Neighborhood Association sent a letter to city and county officials opposing the beddown of the F-35A fighter jets at Truax Field. SASYNA represents the neighborhoods south of the Dane County Regional Airport and Truax Field. In its letter, the neighborhood association makes the following statement:

*"Our voice joins a powerful chorus of opposition. Article after article is appearing online and in print in opposition to siting the planes at the Truax base. Many of us have pored through the Environmental Impact Statement (EIS) over the past month. Were the public opinion outcry not enough, the EIS fills in the unsavory details that provide an empirical backing for all that opposition: significant noise impacts, outsized impact on low income and minority populations, and the rendering of some land as "incompatible" with housing. You know the details. It is impossible to read this and not conclude that some of the other proposed locations would be superior in the sense that a base location would negatively impact far fewer people. To welcome the F-35As to Madison is to invite further hardship on more people than ever before."*

The EIS should explain how opposition of the Schenk-Atwood-Starkweather-Yahara Neighborhood Association influences the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field.

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<sup>40</sup> <https://northsideplanningcouncil.org/f35s/>

### 53. Response to Emerson East Neighborhood Opposition

On October 30, 2019, the Emerson East Neighborhood Association sent comments on the draft EIS. Emerson represents neighborhoods located west of Truax Field. They noted that their association is dedicated to improving our area as a place to live, work and recreate, with an emphasis on social and environmental sustainability.

In their comments they stated:

*“Our neighborhood association recently voted unanimously to oppose the siting of F-35A fighter jets in Madison, Wisconsin. All the available information, including our current experiences with F-16 flights, indicates that the impact of the F-35s on our neighborhood and others on Madison’s northeast side would be significant and negative.”*

Their reasons for opposing the F-35s include: the disproportionate impact on low-income households and communities of color; the disproportionate impact on children; limited, poor or no options for sound mitigation; the disproportionate impact on affordable housing; the likely reduction in home values; and, the need to address PFAS water contamination.

They concluded:

*“Therefore, the Emerson East Neighborhood Association urges the U.S. Air Force to remove Madison from its list of potential host sites for the F-35A fighter jets.”*

The EIS should explain how opposition of the Emerson East Neighborhood Association influences the final decision by the Air Force on the beddown of the F-35A fighter jet squadron at Truax Field.