

# Health and Safety Concerns Regarding F-35 Fighter Jets in Madison, Wisconsin

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## **Introduction**

PSR Wisconsin is extremely concerned about the proposal to expand Truax Air Force Base for bedding of a squadron of F35A fighter jets. Expansion of the base and flight operations to accommodate the **F35 jets poses serious health and safety risks to the residents of Madison, Wisconsin. These jets can also be upgraded to carry nuclear weapons without the public's knowledge.**

## **Air Pollution**

Numerous studies have documented links between air pollution and respiratory diseases, heart disease and stroke. <https://www.who.int/airpollution/ambient/health-impacts/en/>

Airplane exhaust plays a significant role in air pollution, especially in the vicinity of airports.

<https://www.sciencedaily.com/releases/2009/11/091118112423.htm>,

<https://pubs.acs.org/doi/10.1021/es900975f>

The levels of plane emissions of volatile organic compounds and ultrafine particles in neighborhoods near airports are similar to those measured at airport runways.

<https://www.ncbi.nlm.nih.gov/pubmed/20237839?dopt=Abstract>

The F35's consume more fuel on takeoff than other fighter jets because of the use of "after burner" engines for up to 50% of flight operations. <https://vtdigger.org/2019/08/29/docs-show-f-35-afterburners-use-may-be-higher-than-publicly-predicted/>

The more fuel that is used, the higher the levels of ultrafine particle and other emissions.

<https://pubs.acs.org/doi/abs/10.1021/es900975f>

## **Water and Soil Pollution**

High levels of per- and polyfluoroalkyl substances (PFAS) have been found in the soil near Truax AFB and in the watershed of Starkweather Creek, due to PFAS containing firefighting foams used on the base. City well #15 was recently closed down due to PFAS contamination.

<https://www.cityofmadison.com/water/water-quality/water-quality-testing/perfluorinated-compounds>

Some studies in humans with PFAS have shown that PFAS can be transmitted through breast milk, can affect growth, learning and behavior of infants, can adversely affect the immune and endocrine system and increase the risk of cancer. <https://www.atsdr.cdc.gov/pfas/health-effects.html>

Neither the Department of Defense nor Air National Guard has made any effort so far to clean up this PFAS contamination or the two burn pits on the Truax base.

<https://cityofmadison.com/mayor/news/city-staff-memo-maps-on-f-35-environmental-impact-statement>

The F35's require a special stealth coating after each flight, which will pose further risks to the air, soil and water on and around Truax Air Force Base. <https://www.businesstoday.in/opinion/columns/f-35-fighter-jet-stealth-aircraft-us-india-dogfight-indian-air-force-iaf-modi-govt-donald-trump/story/355414.html>

### **Health Effects of Noise**

The Air Force's Draft Environmental Impact Statement (draft EIS) admits there will be a significant impact on noise levels due to the basing of F-35's at Truax. F 35s are 50-250% louder than our current F 16's. The number of takeoff/landings would increase by 27% (but up to 47% increase during the initial 2 years of training).

Basing the F 35's in Madison would impact more homes than at any of the other four proposed sites. The EIS estimated 1,318 households and 2,766 residents will be living inside the 65 db zone. Of these, one hundred thirty-two households with 292 residents will be living within the 70-75 dB zone and will likely need relocation. (4 EIS F-35A Volume 1 Part 2, **Chapter 4, page WI 32**)

Health effects include hearing loss for exposure > 70-80 dB, increases in blood pressure, heart rate and stress hormones that could increase risks of heart attacks, stroke and exacerbate symptoms of anxiety and post traumatic stress (PTSD).

Fetal exposure to excess noise can increase the risk of premature birth or low birth weight infants. Excessive noise exposure of infants, toddlers and young children places them at risk of delayed speech development and cognition as well as negative effects on attention, concentration, long term memory and reading and math comprehension.

Also, particularly vulnerable populations would be those with Autism, ADHD or sensory processing issues as well as differently abled persons and the elderly who cannot easily relocate.

### *Bibliography of 4 good articles about noise and health:*

- 1) Viet SM, Dellarco M, Dearborn DG & Neitzel R. Assessment of noise exposure to children: considerations for the National Children's study. *Pregnancy Child Health*. 2014 October ; 1(1): . doi:10.4172/2376-127X.1000105. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4390126/pdf/nihms-660061.pdf>
- 2) What Do We Know about Noise Sensitivity in Autism? Marina Sarris, Interactive Autism Network at Kennedy Krieger Institute <https://iancommunity.org/ssc/noise-sensitivity-autism> Interactive Autism Network: Linking the Autism Community and Researchers

- 3) Noise: A Hazard for the Fetus and Newborn, American Academy of Pediatrics Committee on Environmental Health, PEDIATRICS Vol. 100 No. 4 October 1997 <http://socnw.org/pdf/noise%20effects%20on%20unborn.pdf>
- 4) Noise Exposure and Public Health, Willy Passchier-Vermeer and Wim F. Passchier, EnvironHealthPerspect108(suppl1):123-131(2000) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1637786/pdf/envhper00310-0128.pdf>
- 5) From the current EPA on noise and children
  - A. For parents: Noise and Its Effects on Children [https://www.epa.gov/sites/production/files/2015-07/documents/ochp\\_noise\\_fs\\_rev1.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/ochp_noise_fs_rev1.pdf)
  - B. For elementary kids: Listen Up Play It Safe With Your Ears Play It Safe With Your Health [https://www.epa.gov/sites/production/files/2015-07/documents/ochp\\_noise\\_elem\\_book.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/ochp_noise_elem_book.pdf)

## **Risk of Fires and Crashes**

Basing a weapon system like the F35 near a heavily populated area is unsafe. There have been several serious mishaps and two fires involving the F35's so far.

<https://vtdigger.org/2018/02/28/problems-plagued-f-35-since-proposed-20-years-ago/>

There have been two crashes, one related to a mechanical failure and one due to pilot error.

<https://www.japantimes.co.jp/news/2019/05/12/world/f-35s-first-crash-caused-manufacturing-defect-report/#.XXpsPpNKhfI>, <https://www.cnn.com/2019/06/10/asia/japan-f-35-fighter-crash-cause-hnk-intl/index.html>

Weapons expert Pierre Sprey estimated that a serious F-35 crash could create a 10-mile toxic radius.

<https://vtdigger.org/2018/02/28/problems-plagued-f-35-since-proposed-20-years-ago/>

The F-35's each carry 18,000 pounds of fuel. Their exterior is made up of composite materials like Kevlar and graphite. When such materials catch fire, they produce a toxic smoke and the fires are hard to extinguish. <https://vtdigger.org/2018/02/28/problems-plagued-f-35-since-proposed-20-years-ago/>

## **Nuclear Capability**

The Madison City staff has been informed that “that if Truax is selected, the F35s arriving would not be nuclear capable and only units with a nuclear mission would be given the hardware necessary to carry nuclear weapons.” But the mission of the F-35s can change and the military is not required to inform the public.

<https://vtdigger.org/2019/04/10/fact-check-activist-says-f-35s-bound-burlington-nuclear-mission-dont/>  
<https://vtdigger.org/2019/04/23/rosanne-greco-f-35-nuclear-capability/>

## **Conclusion**

As medical professionals, we are gravely concerned about both the environmental threats and the risks of serious accidents posed by the basing of F35 fighter jets at Truax. Do these fighter jets make us safer? Or would spending this money on health care, the environment or even cyber security be a better choice?