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Memorandum

Burlington respectfully tells its tenant not to base the F-35 in Burlington

This memorandum is included by reference in the F-35 Resolution of the same title.

Ownership and liability

The City of Burlington owns the Burlington International Airport. The City of Burlington leases a portion of the airport to the Vermont Air National Guard and also retains control of other portions of the airport for commercial flights.

The City of Burlington is the landlord and the Vermont Air National Guard and the United States Air Force are the tenant for the portions of the airport they lease.

The Vermont Air National Guard is an agency of the State of Vermont, except on certain occasions when it is called up by the federal government for national service.

Court cases from across the nation have held that when a city operates an airport, the city is not immune from suit under the so-called governmental immunity doctrine.

The Vermont Air National Guard and the United States Air Force may be immune from suit for damages under state and federal statutes and common law, leaving only the City of Burlington to answer for all claims for damages arising from operation of military jets at the Burlington International Airport.

Under Vermont law, a landowner, such as the City of Burlington, is liable if it knowingly allows one of its tenants or licensees to cause a nuisance or act in a way to injure the person or property of others or if the landowner retains or shares control of leased premises, such as the runways at the Burlington International Airport, resulting in damage to persons or property.

The City of Burlington is fully cognizant of the harms to people and property that will be produced by the basing of the F-35 at Burlington International Airport, as further described in this memorandum with citations to the Air Force revised draft Environmental Impact Statement, World Health Organization reports, a letter from the Environmental Protection Agency, an FAA report related to the Burlington International Airport, and the report of a Vermont real estate appraiser.

The City of Burlington also is fully knowledgeable of the harmful effect of noise on property value and people since the City actively facilitated the removal of people by applying for federal funds to displace 200 families from their modest affordable homes near the airport entrance because of noise generated by F-16 warplanes based at the airport.

The City of Burlington knew about the harms to people and property value from military jet noise when it most recently renewed its lease with the Vermont Air National Guard and the United States Air Force.

The City of Burlington knows about the harms to people and property value from military jet noise as it considers renewing its "Joint Use Agreement" with the Air National Guard that expired on June 30, 2013.

The City of Burlington actively controls the runways shared with the Vermont Air National Guard. Therefore, the City directly shares responsibility for the noise generation the Vermont Air National Guard's military jets produce when they use those runways.

As landowner, Burlington has authority to bar the basing of aircraft that cause injury to neighbors, and neither federal preemption nor state sovereign immunity would protect Burlington from liability if it fails to do so.

The City of Burlington will risk liability for all nuisance, trespass, and takings caused by F-35 warplanes under Vermont statutory law, Vermont common law, and the state and federal constitutions if it permits its tenant to base the F-35 jets at its airport.

The City of Burlington has ability to avoid this liability by adding its voice to that of the City of Winooski in calling on the Air Force not to base F-35 jets at Burlington International Airport; by applying for an Act 250 permit for objective state review--free of political influence--of the noise and crash impacts of the proposed F-35 basing at its airport; and by including a provision prohibiting F-35 basing in its lease and/or in its joint use agreement with the Air National Guard unless the federal government indemnifies the City for all losses to people and property.

Response: The Vermont Air National Guard is not in a position to comment on ownership and liability issues. We are aware of a professional memo prepared by Downs Rachlin Martin PLLC which we believe to be more in line with our understanding of the issues addressed above.

Air Force expects crash rate of F-35 to be much higher than F-16

The United States Air Force issued a [revised draft Environmental Impact Statement \(EIS\)](#) that anticipates that the F-35 crash risk will be much higher than the crash risk of the F-16, especially in the early years of F-35 operational basing.

The Air Force is considering making Burlington among the first places in the world for F-35 operational basing, giving Burlington the greatest crash risk.

The Air Force draft EIS states that "it is possible that projected mishap [crash] rates for the F-35A may be comparable to the historical rates of the F-22A." A table in the Air Force EIS shows historical crash rates of the F-22A. Based on this table, the Air Force anticipates that in its first two years of operational basing the F-35 will have a crash rate *236 times* higher than the number the Air Force cites for the current crash rate for the F-16. The F-35 is expected to have *16 times* the probability of crashing than the F-16 during its first 4 years of operational basing. The F-35 is expected to have *11 times* the probability of crashing than the F-16 during its first 5 years of operational basing and *twice* the probability of crashing than the F-16 during its first 12 years of operational basing (EIS page BR4-49).

Response: Nowhere in the EIS does it state or infer that "the Air Force anticipates that in its first two years of operational basing the F-35 will have a crash rate 236 times higher than the number the Air Force cites for the current crash rate for the F-16."

On page BR4-51 of the Final EIS it states: "As the F-35A becomes more operationally mature, the aircraft mishap rate is expected to become comparable with a similarly sized aircraft with a similar mission. F-35A improved electronics and maintenance are expected to result in a long-term Class A accident rate comparable to that of a similarly sized F-16, whose lifetime mishap rate was 3.55 and was 1.59 in the past 5 years" The Final EIS also states on page BR4-51 that

“In order to provide a broader perspective on the potential mishap rate for a new technology like the F-35A, the following discussion refers to the mishap rates for the introduction of the F-22A (Raptor), the latest jet fighter in the DoD inventory...with that in mind, it is possible that projected mishap rates for the F-35A may be comparable to the historic rates of the F-22A.”

The “crash comparison” for the first two years of the F-22 is inaccurate. The one Class A Mishap cited was a bird ingestion down the engine and the aircraft recovered to the base uneventfully and did not crash. It is classified as a Class A Mishap due to the fact the damages exceeded the \$2,000,000 threshold as defined in Air Force Safety Instructions. If one examines the Table, 7 of 10 Class A Mishaps did not result in an aircraft being destroyed.

The F-35 has been flying since 2006 with over 9000 hours and no Class A Mishaps to date. If selected, Burlington is projected to receive the aircraft around 2020.

Reference Bullet Background Paper on EIS Mishap Rates for a clear understanding of the issues surrounding flight safety at Burlington International Airport (attached).

F-16 crash rate is much higher than commercial aircraft crash rate

A [National Transportation Safety Board \(NTSB\) report](#) provides the crash rate of commercial aircraft. Combined with the information in the Air Force EIS (EIS page BR4-47), the *F-16 now has a crash rate 180 times higher than current commercial aircraft* (see FIG. 3 on page 8 of the NTSB report).

Bringing the F-35 will increase the crash risk at the Burlington airport, particularly during its first years of operational basing. For example, during its first two years of operational basing, the Air Force and NTSB reports indicate that the F-35 will have a crash rate that is $236 \times 180 = 42,000$ times the crash risk of ordinary commercial aircraft. After 12 years of operational basing, the reports indicate that the F-35 will have a crash rate that is $2 \times 180 = 360$ times the crash risk of ordinary commercial aircraft.

Combining the Air Force designated crash zone locations (EIS page 3-26) with town grand list data, [Horace Shaw created a map](#) showing the locations of 1443 houses within the Air Force designated crash zones for F35 basing in Burlington, Colchester, Williston, and Winooski that extend about 3 miles from the two ends of the runway. In addition the map shows 23 commercial properties in South Burlington and 9 in Williston that are within the Air Force designated “clear zones” that begin immediately adjacent the two ends of the runway and extend about ½ mile.

Never before has the Air Force ever even considered operationally basing a brand new fighter jet at a commercial airport surrounded by densely populated residential neighborhoods.

Response: The author(s) appear to use only one class of commercial traffic in determining a crash rate. The NTSB and Air Force reports make no “indication” as cited in second paragraph above.

As noted earlier, no F-22 crashed in the first two years; therefore the crash rate would be Zero. The author(s) misinterprets Class A Mishap rates and labeled them as a crash rate. Table BR3.4-1 on page BR4-51 of the Final EIS clearly illustrates the destroyed (crash) rate for the first two years was 0.00 for years FY02 and FY03 for the F-22A.

The author(s) refer to “crash zones” in the EIS. “Accident Potential Zones (APZ’s)” have been shown on some unofficial documents not from the EIS that illustrates this area extending into the City of Winooski. The EIS clearly states that Runway Protections Zone’s (RPZ’s) are appropriate for Burlington based on Federal Regulations. No one lives in the Burlington RPZ’s. On page BR4-49 of the Final EIS states “The City of Burlington, Vermont utilizes the FAA’s airport land-use compatibility guidelines, and as such, the RPZs have allowed development to be compatible with airport operations.” The dimensions for the RPZs can be found in Figure 3-3 on page 3-27 of the Final EIS.

Burlington’s 8320 foot runway barely meets requirement

Crash risk is increased because the runway at Burlington International Airport has a length far shorter than the runways at Eglin Air Force Base. The runway in Burlington barely exceeds the 8000 foot minimum requirement specified by the Air Force for F-35A basing. The runways at Eglin Air Force base are 12,000 feet and 10,000 feet. Jacksonville’s is 10,000 feet and McEntire’s is 9,017 feet. The shorter the runway, the fewer the options for pilots should they encounter a problem on takeoff or landing. Its shorter runway means Burlington has a higher risk of crashes than locations with longer runways.

Response: The minimum runway length for the F-16 is 8,000 feet. The minimum runway length for the F-35 is 8,000 feet. The VTANG has a proven track record of safely operating aircraft out of Burlington International Airport for the past 67 years. The national Class A Mishap rate for the F-16 is 3.55 / 100,000 flight hours as reported in the Final EIS. The VTANG’s Class A Mishap rate for the F-16 is .926 / 100,000 flight hours. There are several F-16 bases that have a longer runway than Burlington International Airport, yet as shown by the data above, a shorter runway length does not mean a higher risk of crashing.

Shorter runway will likely cause more reliance on afterburner

To reduce F-35 crash risk on takeoff on the shorter Burlington runway, pilots are more likely to rely on afterburner until airborne. Routine use of afterburner on F-16 jets has produced far more noise in neighborhoods on both sides of the runway. The Air Force report includes no figures for the F-35 noise level with afterburner on.

Response: In accordance with the Final EIS, 95% of F-35 takeoffs are scheduled to be in military power (non-afterburner) and only 5% are scheduled to be in afterburner. F-35 take-off and landing data for Burlington’s runway support these percentages.

Crashed F-35 is toxic

A crash of an F-35 jet is likely to have a far greater impact than an F-16 crash. [42% of the airframe weight of the F-35 is a composite](#) plastic that is combustibile, adding to the fuel load. Composite fires are much harder to put out. The [smoke that comes off a composite fire](#) is toxic. The fibers that become airborne from the burning composite are carcinogenic. A report produced by the US Navy, “[Composite Materials in Aircraft, Mishaps Involving Fire: A Literature Review](#),” provides the following quotations from pages 21 to 23:

- “Burning composites can produce fibers that are small enough to penetrate deep into the lungs. These small fibers pose a hazard to the respiratory system.”
- “Small particles and fibers can become trapped within the alveoli in the lungs (sedimentation). Once inhaled, the fibers cannot be efficiently expelled from the body. Particles and fibers of this size are often referred to as "respirable." Any time a foreign

product is introduced into the respiratory tract, a risk exists of pulmonary scarring or other long-lasting respiratory damage.”

- “A combustion environment produces many other toxic products of decomposition. These products have the potential to be adsorbed on the released composite fibers, increasing their pathology.”
- “NASA/Ames performed a series of tests to determine the toxicity of products of decomposition of epoxy composite using fertile chicken eggs as the test subjects . . . Significant quantities of aniline and aniline compounds were identified in the gas analysis from this test. These types of compounds are extremely toxic, mutagenic, carcinogenic, and known to cause liver damage in humans.”
- “An experimental series was conducted by the Naval Health Research Center Detachment (Toxicology) in 2000 to gather information on the lethality and respiratory toxicity from acute exposure to an advanced composite material (ACM) currently being used on the B-2 Stealth Bomber (Reference 32). This material [called B2-ACM] was a single-ply carbon/graphite/epoxy composite. . . . The conclusions from this study are that a 2-hour exposure to smoke, combustion gases, and airborne fibers generated from burning B2-ACM at a rate of approximately 2.6g/min can be lethal.”
- “Subsequent studies have shown that non-visible smoke from B2-ACM can lead to an airway reactivity response severe enough to cause convulsions (Reference 33). A significant fraction of sensitive individuals (estimated at 10 to 20%) may be at an increased risk of severe, possibly lethal, acute airway reactivity (AR) or related airway hyperreactivity responses (AHR). These responses (similar to asthmatic symptoms) could be elicited by exposure to very low concentrations of combustion products from the combustion of advanced composite materials. . . Diluted smoke from the combustion of as little as 5 grams of B2-ACM was found to elicit AR responses after a brief exposure. Exposure to larger amounts (from a 100-gram sample) caused severe bronchospasms, which led to convulsions.”

Response: The VTANG Crash, Fire, and Rescue team are the first responders to any aircraft incident, whether it be civilian or military, at Burlington International Airport. They are among the best trained fire-fighting personnel in the country. The F-16 currently contains composite materials and the VTANG fire fighters are well trained in the latest techniques and supplied with the latest equipment to fight any fire emanating from an aircraft of composite structure to include the F-35. Composites are a legitimate concern in any type of aircraft mishap. Many commercial airliners contain composite materials in their structures as well; such as the Bombardier Commercial Regional Jet (CRJ) family, Embraer CRJ family, and many turbo-prop aircraft that fly into and out of Burlington International Airport on a daily basis.

Air Force says F-35 basing will have negative impacts on thousands of people

The United States Air Force issued a [revised draft Environmental Impact Statement \(EIS\)](#) that details negative impacts of basing F-35 jets on thousands of Burlington area residents.

Response: On pages 2-31 through 2-44 Table 2-12 in the Final EIS provides the comparative Summary of all Environmental Consequences for the basing of the F-35. Fifteen different areas were looked at:

Airspace Management and Use; Noise; Air Quality; Safety; Geology, Soils, and Water; Terrestrial Communities; Wetlands/Freshwater Aquatic Communities; Threatened, Endangered, and Special Status Species/Communities; Cultural and Traditional Resources; Land Use; Socioeconomics; Environmental Justice/Protection of Children; Community Facilities and Public Services; Ground Traffic and Transportation; and Hazardous Materials and Waste. Based on the most likely course of action being Scenario 1 and data presented in the Final EIS, we scored the 15 Environmental Consequences using a simple Green (no adverse impacts or no impact) and Red (affected) color scoring in an attempt to illustrate a point that the EIS clearly shows that there are several areas that result in no adverse impacts, which we view as positive.

Environmental Consequence	Color Score	Notes
Airspace Management and Use	Green	Decrease in overall operations
Noise	Red	Increase in 65 DNL line in Winooski and Williston (decreases in South Burlington)
Air Quality	Green	Overall decrease of 3,130 metric tons of criteria pollutants
Safety	Green	Decrease in overall operations
Geology, Soils, and Water	Green	No disturbances
Terrestrial Communities	Green	Decrease in operations results in decreased chance for impact
Wetlands/Freshwater Aquatic Communities	Green	No impacts
Threatened, Endangered Communities	Green	No impacts
Cultural and Traditional Resources	Green	No impacts
Land Use	Red	Increase to overall land use affected by noise
Socioeconomics	Green	No change
Environmental Justice/Protection of Children	Red	Effects on minorities around base actually decrease, but remain "disproportionate" compared to country and state levels
Community Facilities and Public Services	Green	No impacts
Ground Traffic and Transportation	Green	No impacts off- base
Hazardous Materials and Waste	Green	Use of several hazardous materials used on F-16s would go away with the F-35 arrival

As one can see by the table above, the majority of Environmental Consequences (12 of 15) analyzed in the EIS were summarized as either having no adverse impacts or no impact to the surrounding communities. The Burlington AGS specific parts of Table 2-12 from pages 2-31 through 2-44 of the Final EIS are provided below for reference purposes:

	Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s		Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s		Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s
Location in EIS:	BR3.1	Location in EIS:	BR3.2	Location in EIS:	BR3.3
Airspace Management and Use	<p>Base:</p> <ul style="list-style-type: none"> No adverse impacts to airspace management and use within the local air traffic environment. 2.3 percent decrease in total annual airfield operations under Scenario 1 and 0.7 percent decrease under Scenario 2. <p>Airspace:</p> <ul style="list-style-type: none"> No change to current configuration of airspace under either scenario. 7 percent decrease in total operations under Scenario 1 and 19 percent increase under Scenario 2. No adverse impacts on airspace use and management. 	Noise	<p>Base:</p> <ul style="list-style-type: none"> Scenario 1: Affected by 65 dB DNL or greater: Acres: +289 Population: +2,061 Households: +997 Representative Receptors: +5 Scenario 2: Affected by 65 dB DNL or greater: Acres: +672 Population: +3,117 Households: +1,444 Representative Receptors: +6 <p>Airspace:</p> <ul style="list-style-type: none"> Subsonic: Perceptible increase in 2 airspace units. Supersonic: Supersonic events would not affect populations, communities, special land uses, or other resources. 	Air Quality	<p>Base:</p> <ul style="list-style-type: none"> Under both scenarios, emissions would not be introduced that would exceed threshold levels or would substantially deteriorate regional air quality. Area is in attainment for all criteria pollutants; no conformity determination required. <p>Airspace:</p> <ul style="list-style-type: none"> Regional emissions of CO₂e would incrementally decrease under Scenario 1 and increase under Scenario 2. Under both scenarios, emissions within the training airspace would be negligible because over 95 percent of the operations would occur well above the mixing height.

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Location in EIS:	BR3.4	Location in EIS:	BR3.5	Location in EIS:	BR3.6
Safety	<p>Base:</p> <ul style="list-style-type: none"> Total annual airfield operations for based fighter aircraft would decrease by 2.3 percent and 0.7 percent under Scenarios 1 and 2, respectively, with commensurate decrease in mishap potential. <p>Airspace:</p> <ul style="list-style-type: none"> All current fire risk management procedures would remain unaffected due to the F-35A basing. No increase in flare use. Probability of flare debris strike negligible (0.0021/year). Potential decrease of bird/wildlife-aircraft strike hazards and aircraft mishaps below baseline levels. 	Geology, Soils, and Water	<p>Base:</p> <ul style="list-style-type: none"> Under Scenarios 1 and 2, there would be negligible surface disturbance and no increase in impervious surfaces. For all scenarios, construction would take place internally within existing facilities and geology, topography, soils, surface water, groundwater, and floodplains would not be adversely impacted. <p>Airspace:</p> <ul style="list-style-type: none"> Not Applicable. 	Terrestrial Communities	<p>Base:</p> <ul style="list-style-type: none"> No loss of vegetation or terrestrial habitat under either scenario. Decreased operations would result in a decreased opportunity for bird/wildlife-aircraft strikes to occur. <p>Airspace:</p> <ul style="list-style-type: none"> Subsonic impacts to wildlife from changes in airspace operations would be minimal under both scenarios. No supersonic operations below 30,000 feet MSL over land.
				Location in EIS:	BR3.7
				Wetlands/Freshwater Aquatic Communities	<p>Base:</p> <ul style="list-style-type: none"> No impacts to wetlands and other freshwater communities on the installation under all scenarios. <p>Airspace:</p> <ul style="list-style-type: none"> Not applicable.

	<i>Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s</i>		<i>Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s</i>		<i>Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s</i>
Location in EIS:	BR3.8	Location in EIS:	BR3.9	Location in EIS:	BR3.10
Threatened, Endangered, and Special Status Species/Communities	<p>Base:</p> <ul style="list-style-type: none"> No impacts to threatened and endangered species or special status communities due to construction activity. <p>Airspace:</p> <ul style="list-style-type: none"> Under either scenario, impacts to listed threatened, endangered, or special status species would be minimal due to changes in airspace operations. 	Cultural and Traditional Resources	<p>Base:</p> <ul style="list-style-type: none"> No impacts to archaeological, architectural, or traditional historic properties under either scenario. <p>Airspace:</p> <ul style="list-style-type: none"> No adverse impacts in the APE would result to NRHP-eligible or potentially eligible properties. <p>Consultations:</p> <p>American Indian</p> <ul style="list-style-type: none"> Government-to-government initiated in January 2010. Nine American Indian Tribes consulted, five never replied to numerous attempts of contact and four concurred with the Air Force determination of no adverse effects. <p>SHPOs</p> <ul style="list-style-type: none"> No NRHP-eligible or potentially eligible properties affected. Maine, New York, and Vermont SHPOs concurred with Air Force determination of no adverse effects in the APE. 	Land Use	<p>Base:</p> <ul style="list-style-type: none"> No change to the existing airfield-related APZs and Clear Zones. Land area affected by noise levels equal to or greater than 65 dB DNL: <p>Scenario 1 Overall: Increase 14 percent Residential: Increase 52 percent</p> <p>Scenario 2 Overall: Increase 34 percent Residential: Increase 80 percent</p> <p>Airspace:</p> <ul style="list-style-type: none"> No change to general land use patterns, land ownership. No change to management of lands or special use land areas beneath the airspace. No impairment to special use land management areas such as national/state parks and forests, national/state wildlife refuges, historic trails, or wilderness areas. No impact to community land uses.

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Location in EIS:	BR3.11	Location in EIS:	BR3.12	Location in EIS:	BR3.13
Socioeconomics	<p>Base:</p> <ul style="list-style-type: none"> Scenario 1 – no net change in military personnel numbers. No change to military payrolls; no impacts to regional employment, income, or regional housing market. Scenario 2 – increase of 266 military personnel; annual increase in salaries of approximately \$3.4 million. Scenarios 1 and 2 – \$2.4 million in expenditures for proposed construction and modification. <p>Airspace:</p> <ul style="list-style-type: none"> Not applicable. 	Environmental Justice/Protection of Children	<p>Base:</p> <ul style="list-style-type: none"> For both scenarios, continued disproportionate effects on low-income individuals would occur. Under both scenarios, effects on minority populations would decrease relative to proportions around the base, but would remain disproportionate compared to county and state levels. <p>Airspace:</p> <ul style="list-style-type: none"> No disproportionate impacts related to environmental justice are anticipated, nor would there be any adverse or special health or safety risks to children. 	Community Facilities and Public Services	<p>Base:</p> <ul style="list-style-type: none"> Under Scenario 1, there would be no impacts to community facilities and services. Under Scenario 2, there would be an increase in demand for potable water, electricity, and natural gas; wastewater and solid waste generation; and education services. <p>Airspace:</p> <ul style="list-style-type: none"> Not applicable.

	Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s		Burlington AGS ANG Scenario 1 = 18 F-35As ANG Scenario 2 = 24 F-35As Replace 18 F-16s
Location in EIS:	BR3.14	Location in EIS:	BR3.15
Ground Traffic and Transportation	<p>Base:</p> <ul style="list-style-type: none"> Construction traffic could result in negligible short term increases in the use of on-base roadways. Under Scenario 1, no change in travel demand for the base. Under Scenario 2, increases in peak period travel demand by 24 percent. Under Scenario 2, increase in traffic volume would exceed primary Level of Service threshold by 12.2 percent but would not exceed the secondary threshold for capacity. <p>Airspace:</p> <ul style="list-style-type: none"> Not applicable. 	Hazardous Materials and Waste	<p>Base:</p> <ul style="list-style-type: none"> Quantities and types of hazardous materials needed for maintenance would be less than those currently generated by maintaining F-16 and F-15 aircraft. Operations involving hydrazine, cadmium, and hexavalent chromium primer, and various heavy metals have been eliminated or greatly reduced for the F-35A. Any structures proposed for upgrade or retrofit would be inspected for ACM and LBP according to established procedures. Neither upgrades to existing facilities nor future operations are expected to affect known ERP locations. <p>Airspace:</p> <ul style="list-style-type: none"> Not applicable.

Air Force EIS gives no positive feature for Vermont of basing F-35 jets

The Air Force EIS describes *not even one* positive feature for Vermont from basing F-35 jets. As will be seen below, the Air Force EIS indicates no significant benefit for jobs or the economy of Chittenden County from F-35 basing. The Air Force EIS says, “if there is no F-35A operational beddown at Burlington Air Guard Station (AGS) *the current mission would continue*” (EIS page PA-47). Thus, the Air Force reminds readers that the Vermont Air National Guard base is not closing if the Vermont Air National Guard is not selected for basing the F-35.

By contrast, the report shows very serious damage to affordable housing and public health in Burlington, South Burlington, Williston, and Winooski. The report also gives details of substantial negative impact on the environment. According to the report, basing the F-35 in Burlington has negative impact in the areas of noise, air quality, safety, land use, socioeconomic, environmental justice and protection of children, community facilities and public services, ground traffic and transportation, climate change, and cumulative effects and irreversible commitment of resources (EIS pages BR4-20 to BR4-81).

Response: The Final EIS shows several positive environmental aspects that would result from the basing of the F-35A. See scoring guideline above and Table 2-12 on pages 2-31 through 2-44 of the Final EIS for specifics. Some highlights for your immediate review are provided below:

Table BR2.1-1 on page BR4-4 shows an overall decrease in airfield operations for Scenario 1 (most likely scenario) of 2,613 flight operations. We believe most would see that as a positive impact.

On page BR4-6 in the Final EIS and in line with the socioeconomics benefits to Burlington, the EIS states that “In total, infrastructure improvements would not increase any facility footprint as all improvements are projected to be internal; the overall cost of the improvements would be close to \$4.7 million. Because the proposed construction would occur within the existing facilities, there would be no surrounding lands that would be affected by the construction activities (i.e., impact areas).” As most of our construction contract projects are done by local businesses, we believe most would see bringing \$4.7 million into the local economy as having a positive impact on our surrounding communities. See Table BR2.1-2 below:

<i>Year</i>	<i>Action</i>	<i>Total Affected Area (acres)¹</i>	<i>New Impervious Surface (acres)</i>
2016	Internal Renovation to Building 120 for F-35A Simulator	0	0
2016	Provide 270DC, 28DC Power in Aircraft Shelter Parking Areas (Buildings 130, 131, 132, 150, 360)	0	0
2016	Provide Secure/Classified Upgrades in Rooms 004/004A, Building 140	0	0
2016	Provide a Secure Parts Storage Area for ALIS, Building 70 Warehouse	0	0
2016	Design	0	0
Total	Cost: \$4,690,000	0	0

Note: ¹All construction consists of internal modifications only; consequently, there are no associated affected areas or new impervious surface as a result of the proposed construction.

In Table 2-12 (provided above) under the Safety Environmental Consequence, the EIS identifies the reduction in aircraft operations under both scenarios with a commensurate decrease in mishap potential. We believe most would see that as a positive.

In Table 2-12 (provided above) under Hazardous Materials and Waste it states “Quantities and types of hazardous materials needed for maintenance would be less than those currently generated by maintaining the F-16 aircraft. Operations involving hydrazine, cadmium and hexavalent chromium primer have been eliminated or greatly reduced for the F-35A.” We believe most would see this as a positive.

In Tables BR3.3-3 and 3.3-4 (provided below) air pollutants decrease in 6 of 7 categories for scenario. Emissions would decrease by 3,130 metric tons per year under scenario 1. We believe most would see this as a positive.

<i>Activity</i>	<i>Pollutants in Tons per Year</i>						
	<i>CO</i>	<i>NO_x</i>	<i>VOCs</i>	<i>SO_x</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>CO_{2e}¹</i>
Aircraft	13.11	33.52	0.43	17.93	1.18	1.18	12,354
Engine Runups	0.40	0.09	0.01	0.11	0.01	0.01	76.25
AGE ²	3.86	3.44	0.21	0.97	0.31	0.30	897
POVs	52.62	1.91	2.35	0.04	0.10	0.10	1,880
Total Annual ANG Scenario 1 Emissions	69.98	38.96	3.00	19.04	1.60	1.59	15,207
Baseline Annual Emissions	153.80	48.42	19.11	8.37	8.55	7.80	18,225
Net Change	-83.82	-9.47	-16.11	10.67	-6.95	-6.21	-3,018
Major Source Threshold	250	250	250	250	250	250	-

Notes:

¹CO_{2e} = (CO₂ * 1) + (CH₄ * 21) + (N₂O * 310), (40 CFR 98, Subpart A, Table A-1) in metric tons per year.

²With the exception of SO_x, (which the JSF program office has not determined as of this date) these data reflect F-35A specific AGE equipment.

Burlington not the environmentally preferred location

The Air Force EIS states that the Vermont Air National Guard (ANG) is *not* the environmentally preferred basing location for the F-35. The EIS states that the *McEntire ANG* in South Carolina is the environmentally preferable alternative (EIS page 2-30). Nevertheless, Burlington remains the “preferred alternative” for the initial operation beddown (EIS page 2-30).

Response: It is true the Final EIS states on page 2-30 “The environmentally preferred alternative for ANG basing locations is McEntire ANG Scenario 1”

However, at the beginning of paragraph 2.2.6 on page 2-30, the Final EIS also states: “The Air Force selected Hill AFB and Burlington AGS as the preferred alternative locations... The Air Force determined that these alternative locations best fulfill its mission responsibilities as presented in the purpose and need.” Purpose and need is discussed in paragraphs 1.3 and 1.4 on page 1-6 of the Final EIS.

Negative environmental consequences may increase after the F-35 jets arrive

The Air Force EIS states that the “actual number and configuration of aircraft eventually based” has not actually yet been determined. Therefore, the Air Force offers no guarantee of the upper limit of adverse environmental consequences (EIS page 2-26).

Experience with the F-16 illustrates that negative environmental consequences can increase after the initial basing: the Air Force changed the engine, the fuel tank configuration, and its use of afterburners, each increasing the noise level of the F-16.

Response: The full sentence from the Final EIS on page 2-26 states: “The planning considerations used to identify candidate bases employed the best current (as of August 2009) estimates for the timeframe of the process; the actual number and configuration of aircraft eventually based will be determined by national security factors extant at the time of delivery and will be consistent with the results of this EIS.” This is not an open ended option with no upper limit as stated above. Only Scenario 1 (18 Aircraft) or Scenario 2 (24 Aircraft) can be executed as a result of the Final EIS. Scenario 1 is the most likely scenario.

The EIS process is defined in part 1 of the EIS. EIS preparation is accomplished in accordance with the National Environmental Protection Act. This act defines how to handle operational changes in regards to an EIS and limits the DoD from operating outside the scope of the EIS.

Intense noise is a hazard

The Air Force EIS reports that the Federal Aviation Administration (FAA) established a 24-hour average noise threshold of 65 dB DNL as the [maximum limit that is compatible with residential living](#). The Air Force revised draft EIS says: “Areas exposed to DNL above 65 dB are generally not considered suitable for residential use” (EIS page C-12).

The Day-Night average noise Level, measured in dB DNL, is an average of the noise measured over 365 days per year and 24 hours per day--including times when no planes are flying--and thus, has a numerical value that is much lower than the sound level (L_{max}) produced by an aircraft and heard by citizens.

The Air Force EIS reports that the 65 dB DNL “is a level most commonly used for noise planning purposes and represents *a compromise* between community impact and the need for activities like aviation which do cause noise” (EIS page C-14). It also suggests that the 65 dB DNL line does *not* include an adequate margin of safety for the public. Instead the Air Force

revised draft EIS recommends 55 dB DNL to provide an adequate margin of safety. The Air Force EIS specifically says that 55 dB DNL is “a level ‘...requisite to protect the public health and welfare *with an adequate margin of safety*,’ (USEPA 1974) which is essentially a level below which adverse impact is not expected” (EIS page C-14).

Military jets (not commercial aircraft) dominate noise

The Air Force EIS states that “the contribution of civilian aircraft” to noise at the Burlington airport is “negligible compared to the military aircraft contribution” (EIS page BR4-33).

65 dB average noise contour

The Air Force EIS states that basing the F-35 here will place 3410 households and 7,719 people (BR4-33) in Burlington, South Burlington, Winooski, and Williston within the 65 dB DNL average noise zone, the level considered unsuitable for residential use.

These 3410 households and 7,719 people will be in a noise zone identical to that of the families now displaced from their homes in South Burlington and whose homes are being demolished.

Local assessors estimate that about 1500 children will live in this 65 dB DNL F-35 noise zone.

Air Force says expect adverse health effects within 75 decibel average noise contour

The Air Force revised draft EIS states: “... DNL of 75 dB... is the lowest level at which adverse health effects could be credible (USEPA 1974)” (EIS page C-12).

75 decibel average noise contour

The Air Force EIS states that basing the F-35 here will place 345 households and 770 people (BR4-33) within the 75 dB DNL contour that the Air Force EIS says is credible for hearing loss, cardiovascular effects, and cognitive impairment of children.

The local assessors’ estimate means that about 150 children will live in this 75 dB DNL F-35 noise contour.

Response: Reference Table BR3.2-8 on page BR4-30 of the Final EIS. It clearly illustrates that there are currently 242 households and 583 people living inside the 75 dB DNL now. The F-35 will bring a net change of 10 *people* under scenario 1 and 187 people under scenario 2 (Scenario 1 is the most likely situation for Vermont). The VTANG is not aware of any hearing loss, cardiovascular or cognitive impairment issues for anyone in those areas attributed to noise. The 2011 WHO Noise Report titled “Burden of Disease from Environmental Noise” references “chronic noise” from major commercial airports in Europe where takeoffs and landings are occurring at all hours of the day and night. The VTANG typically flies 4 days per week with 6 takeoffs/landings in the morning after 0830 and another 6 takeoffs/landings in the afternoon.

Table BR3.2-8. Off-Airport Noise Exposure under ANG Scenario 1 for Burlington AGS Proposed/Baseline				
Contour Band (dB DNL)¹	Acreage	Population	Households²	Receptors³
65 – 70	1,280/1,248	4,330/2,808	1,893/1,219	12/7
70 – 75	671/483	1,740/1,211	810/505	3/2
75 – 80	250/187	586/574	257/238	1/2
80 – 85	51/45	7/9	3/4	0/0
85+	0/0	0/0	0/0	0/0
Total	2,252/1,963	6,663/4,602	2,963/1,966	16/11

Source: Wyle 2011, U.S. Census Bureau 2010b.

Notes:

Air Force says high aircraft noise causes cognitive impairment of children

The Air Force EIS describes studies demonstrating the association between chronic exposure to high aircraft noise levels and cognitive impairment in children (C-28 to C29). The Air Force EIS states that “evidence exists that suggests that chronic exposure to high aircraft noise levels can impair learning.”

Chronic exposure means that the learning impairment from high aircraft noise levels is cumulative. The adverse effects increase with repeated exposure to high noise levels over months and years, and the Air Force EIS anticipates “an annual average of 260 days for F-35 operations” (EIS page 3-13). 260 days is 5 days a week for 52 weeks per year.

Response: The Final EIS does not state “Chronic exposure means that the learning impairment from aircraft noise is cumulative.” We encourage all to read the cited pages.

The F-35 will operate 2613 times fewer than the F-16 per year under scenario 1 and 803 times fewer under scenario 2. (Table BR2.1-1 page BR4-4). The 5 days a week 52 weeks a year noted in the EIS is the upper limit of potential actual flying days. The Vermont Air National Guard accomplishes its current flying requirements flying four days a week and on one Saturday / month. With the number of overall operations less for the F-35 than current F-16 requirements, the Vermont Air Guard anticipates similar number of flying days as being currently conducted.

Table BR2.1-1. Burlington AGS Baseline F-16 and Proposed F-35A Annual Airfield Operations		
Baseline	ANG Scenario 1	ANG Scenario 2
F-16s	18 F-35As	24 F-35As
8,099	5,486	7,296
Net Change	-2,613	-803

Source: Wyle 2011.

World Health Organization and NATO say no to noise near schools

The Air Force EIS states that “this awareness has led the WHO [World Health Organization] and a North Atlantic Treaty Organization (NATO) working group to conclude that daycare centers

and schools should not be located near major sources of noise, such as highways, airports, and industrial sites (EIS page C-29).

Response: Reference page BR4-32 of the Final EIS. Table BR3.2-9 identifies the 23 Representative Noise Receptors around Burlington International Airport. Representative Noise Receptors include schools, places of worship, hospitals, and residential communities. Of the schools with children on the list (Bellwether School and Family Center, Chamberlin School, and St Francis Xavier School), Chamberlin Schools actually sees a reduction in noise (70 DNL down to 67 DNL) if the F-35 replaces the F-16. Bellwether School remains outside of the 65 DNL for both scenarios. St Francis Xavier School experiences an increase in noise from 65 DNL to 67 DNL. An increase of 3 dB or less is imperceptible to the human ear.

F-16 afterburner use violates Air Force EIS and WHO recommendation

The restriction on noise level near a school was violated when the Vermont Air National Guard started routinely using its incredibly loud afterburner for takeoff near Chamberlin Elementary School in South Burlington.

Response: We are not aware of any “restrictions” on noise levels. We are aware of recommendations on compatible land use and measures to mitigate noise. Sound insulation is one suggested measure where land use exceeds a guideline.

Further research into the EIS shows that in table C-4 for educational services in the 65-70 dB DNL column, land use is generally compatible with noise level reduction such as insulation (which Chamberlain School has). Reference page BR4-32 of the Final EIS. Chamberlin School currently sits on the 70 DNL line based on current F-16 operations. The F-35 will bring a 3 dB *decrease* in DNL to Chamberlain Elementary School. (Table BR 3.2-9). Additionally, page C-18 of the Final EIS states the following: “In summary, there is no scientific basis for a claim that potential health effects exist for aircraft time-average sound levels below 75 dB.”

Table BR3.2-9. Decibel Levels under ANG Scenario 1 at Representative Locations near Burlington IAP			
Location ID Number	Receptor	Type	Decibel Level (dB DNL) Proposed/Baseline
1	Fletcher Allen Healthcare-Fanny Campus	Hospital	<65/<65
2	Bellwether School and Family Center	School	<65/<65
3	Center For Science Education	School	71/<65
4	Chamberlin School	School	67/70
5	Saint Michael College	School	65/68
6	St. Francis Xavier School	School	67/<65
7	Vermont Technical College	School	<65/<65
23	Community College of Vermont	School	72/65
8	Calvary Chapel	Worship	65/<65
9	Community Lutheran Church	Worship	<65/66
10	Maranatha Christian Church	Worship	<65/<65
11	Sisters of Providence	Worship	68/<65
12	Valley Baptist Fellowship	Worship	<65/<65
13	Winooski United Methodist Church	Worship	67/<65
14	Chapel of St. Michael	Worship	65/67
15	Williston Road at S Brownell Road	Residential	72/65
16	Shunpike Road	Residential	66/67
17	Patrick Street	Residential	67/71
18	Airport Parkway/Kirby Road	Residential	78/79
19	Valley Ridge Road	Residential	69/68
20	Main Street/E Spring Street	Residential	68/<65
21	Roland Court	Residential	69/67
22	Shamrock Road	Residential	75/75

Source: Wyle 2011, 2013 and U.S. Census Bureau 2010b.

From the Burlington IAP Noise Compatibility Plan (NCP), soundproofing has not been pursued to this point. The following is from Page 15 of the NCP:

3.3.2 Soundproofing

Qualified compatible residential and noise sensitive land uses within the 65 and 70 dB DNL contours, and qualified compatible non-residential land uses in the 75 dB DNL contour, would be included in a soundproofing program (ROA Section II.C.11).

Status: As discussed in Section 3.3.1, the City has chosen to apply available funding to land acquisition.

Lifelong impairment

Consistent with the Air Force EIS, a training presentation for Health Care Providers that was published by the World Health Organization, “[Children and Noise](#),” updated in 2009, urges consideration that children are vulnerable to “lifelong impairment of learning and education” (WHO children page 15) and says that “over 20 studies have reported that noise adversely affects children’s academic performance” (WHO children page 33).

The “Children and Noise” presentation reports that aircraft noise adversely affects hearing and cognitive performance of children. With regard to cognitive performance, it reports impairment in reading, memory, auditory discrimination, speech perception, academic performance, and attention (page 35). It reports that the strength of evidence for all these scientific findings is at the highest of four levels.

Response: Appendix C of the EIS covers noise modeling and effects of noise. As part of the public comments, the Air Force has provided the following regarding the recent noise studies:

NO-8	R0136, R0157, R0203, R207, R0233, R0245n, R0249, R0252, R0377, R0511, R0522, R0644, R0686, R0713, R0717, R0759, R0817	EIS fails to include more recent noise studies.	Appendix C includes the most recent peer-reviewed and accepted noise studies, Federal Interagency Committee on Noise (FICON) recognized reports, and Department of Defense Noise Working Group (DNWG) accepted methodology. There have been a number of noise studies with different results published in recent years. The results and conclusions of those studies have, however, been somewhat contradictory according to leading noise experts who have evaluated these studies for the Air Force. For example, the recent Hypertension and Exposure to Noise Near Airports (HYENA) study found correlations between hypertension and noise for daily road traffic noise, but only for nighttime aircraft noise. The FICON and DNWG methodologies employed are ones that are well supported and recognized by a consensus of the scientific community.
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NO-13	R0167, R0174, R0189, R0249, R0250, R0287, R0348, R0382, R0377, R0384, R0518, R0544, R0588, R0590, R0635, R0641, R0644, R0685, R0713, R0717, R0811, R0813, R0817, R0821, R0822	Five of the six studies cited in the 2011 World Health Organization report, "Burden of Disease from Environmental Noise," concern aircraft noise...	The results and conclusions of those studies have been somewhat contradictory according to leading noise experts who have evaluated these studies for the Air Force. See Response to Comment NO-8.
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Children’s ears more sensitive

A [United States Environmental Protection Agency \(EPA\) letter](#) commenting on the Draft Environmental Impact Statement for the F35 bed down at Eglin AFB, Florida (November 2010) states:

EPA is particularly concerned over noise impacts to children per Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks. E.O. 13045 recognizes children may suffer disproportionately from environmental health risks and safety risks. Because their smaller ear canals magnify the sounds entering the ear canals, children’s hearing may be particularly sensitive. For example, a 20-decibel difference can exist between adult and infant ears.

Response: We have not seen the referenced letter. The EPA did not make the same comment on the letter provided for the basing at BIAP (see attached). It should be noted the number of flight operations at each location is significantly different (Burlington is 3% of what is planned at Eglin). The Eglin EIS dated October 2008 listed annual F-35 operations at 195,539 for Alternative 1 and 249,266 for Alternative 2. The annual F-35 operations projected in the Final EIS as identified in Table BR2.1-1 on page BR4-4 for the F-35 at Burlington are 5,486 for Scenario 1 and 7,296 for Scenario 2.

Table BR2.1-1. Burlington AGS Baseline F-16 and Proposed F-35A Annual Airfield Operations		
Baseline	ANG Scenario 1	ANG Scenario 2
F-16s	18 F-35As	24 F-35As
8,099	5,486	7,296
Net Change	-2,613	-803

Source: Wyle 2011.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D. C. 20460

JUL 15 2013

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Nicholas Germanos
F-35A Operational Basing EIS Project Manager
HQ ACC/A7PS
129 Andrews Street, Suite 337
Langley AFB, VA 23665-2769

Dear Mr. Germanos:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the Environmental Protection Agency (EPA) has reviewed the U.S. Air Force's revised draft Environmental Impact Statement (EIS) on the F-35A Operational Basing (CEQ No. 20130143).

The Air Force proposes to beddown new F-35A aircraft at one or more locations throughout the contiguous U.S. from 2015 to 2020. The Air Force identified Hill Air Force Base and Burlington Air Guard Station as the preferred alternatives for the initial operational beddown.

EPA commends the Air Force's commitment to continue to work with the affected communities to ensure adverse noise impacts are avoided to the greatest extent possible. EPA believes that the draft EIS provides an adequate discussion of the potential environmental impacts and we have not identified any potential environmental impacts requiring substantive changes. EPA has rated the draft EIS as LO – "Lack of Objections." A summary of EPA's rating is enclosed.

We appreciate the opportunity to review the revised draft EIS. The staff contact for the review is Candi Schaedle and she can be reached at (202) 564-6121.

Sincerely,

Susan E. Bromm
Director
Office of Federal Activities

Table ES-16 below is from the Eglin EIS:

Table ES-16. Annual Airfield Operations for JSF Alternatives

Alternative	Aircraft Type	Airfield			Total
		Eglin	Duke	Choctaw	
Baseline (2005)	F-15 (33 FW)	29,206	0	0	29,206
	Other	76,582	24,643	76,467	177,692
	Total	105,788	24,643	76,467	206,898
Alternative 1	F-35	121,286	84,956	33,633	239,875
	Other	74,253	24,643	76,467	175,363
	Total	195,539	109,599	110,100	415,238
Alternative 2	F-35	175,013	35,762	23,997	234,772
	Other	74,253	24,643	76,467	175,363
	Total	249,266	60,405	100,464	410,135

Air Force EIS says aircraft classroom interruption is a bad idea

The Air Force EIS states:

When considering intermittent noise caused by aircraft overflights, guidelines for classroom interference indicate that an appropriate criterion is a limit on indoor background equivalent noise levels of 35 to 40 dB (equivalent noise level [L_{eq}]) and a limit on single events of 50 dB L_{max} . The 50 dB L_{max} for single events equates to outdoor L_{max} of 65 dB and 75 dB for windows open and closed, respectively (EIS page 3-9).

Response: The EIS does not state “classroom interruption is a bad idea.” It does state that “speech interference is one supplemental indicator of noise effects.” Reference Table BR3.2-11 on page BR4-33 of the Final EIS. It specifically states: “The number of speech interfering events with windows closed would remain unchanged from baseline for six schools (#2, 3, 4, 6, 7, and 23), and increase by one at St Michael College (#5). In terms of windows open, events per hour would increase by one at one school (#2 – Bellwether School and Family Center) and decrease by one at another (#7 – Vermont Technical College); all others would remain unchanged from baseline conditions.”

It should be noted that the majority of VTANG flight operations consist of 6 aircraft departing in close succession, once in the morning and once in the afternoon. The interference therefore occurs within a few minutes, and not per hour as noted.

Over and over during school day: interference with classroom learning at Chamberlin

A table in the Air Force EIS says that with the F-16 operating, the Chamberlin School in South Burlington has 25 noise events per hour above a Maximum Outdoor Noise Level of 75 dB L_{max} during the school day when windows are open and 5 noise events per hour above that level when windows are closed (EIS page BR4-26). Another table says that these numbers will increase to 26 with windows open and 6 with windows closed if 24 F-35 warplanes are based here (EIS page BR4-36). Thus, the F-35 will make a bad situation worse for children and teachers at the Chamberlin School.

Response: Please reference Table BR3.2-5 on page BR4-28 of the Final EIS for classroom speech interference for current F-16 operations and Table 3.2-11 on page BR4-33 for classroom speech interference for F-35 operations. You will notice that there is no change in the number of expected speech interference events at Chamberlin School between current F-16 operations and F-35 operations. You will also notice that the outdoor equivalent noise level (L_{eq}) actually decreases by 4dB from 74 L_{eq} for the F-16 to 70 L_{eq} for the F-35. Additionally, the majority of flight operations occur as multiple takeoffs within a 15 minute window in the morning and another 15 minute window in the afternoon and are not averaged as presented in the EIS. The Vermont Air National Guard has no plans to change that method on how we conduct/schedule our flight training.

Health effects at much lower levels

Although the Air Force EIS indicates that 770 people are in the 75 dB DNL noise zone that the Air Force EIS acknowledges is credible for serious health effects, more recent studies than those included in the Air Force EIS show these adverse health effects at much lower noise levels than 75 dB DNL, as described in an authoritative, peer reviewed 2011 report by the World Health Organization (WHO), “[Burden of Disease from Environmental Noise](#)” (“the 2011 WHO report”). Thus, not just for the 770 people who live within the 75 dB DNL contour but also for

the thousands of additional people who live within the 65 dB and 55 dB DNL contours, these health effects to adults and children are credible (and they can all hold Burlington liable).

Response: The Air Force has commented on the 2011 WHO Noise report as noted in the Final EIS Vol II Appendix E “Response Comments”. Specifically, see response number NO-8 from page E-1229.

NO-8	R0136, R0157, R0203, R207, R0233, R0245n, R0249, R0252, R0377, R0511, R0522, R0644, R0686, R0713, R0717, R0759, R0817	EIS fails to include more recent noise studies.	Appendix C includes the most recent peer-reviewed and accepted noise studies, Federal Interagency Committee on Noise (FICON) recognized reports, and Department of Defense Noise Working Group (DNWG) accepted methodology. There have been a number of noise studies with different results published in recent years. The results and conclusions of those studies have, however, been somewhat contradictory according to leading noise experts who have evaluated these studies for the Air Force. For example, the recent Hypertension and Exposure to Noise Near Airports (HYENA) study found correlations between hypertension and noise for daily road traffic noise, but only for nighttime aircraft noise. The FICON and DNWG methodologies employed are ones that are well supported and recognized by a consensus of the scientific community.
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Additional Quotes from the 2011 WHO Noise Report titled “Burden of Disease from Environmental Noise” that support the Air Force’s comments in the Final EIS:

- “Children may be exposed to noise for many of their childhood years and the consequences of long-term noise exposure on reading comprehension and further cognitive development remain unknown.”
- “Cognitive impairment is not an outcome of a clinical diagnosis; it is therefore not possible to derive a conventional exposure–risk relationship suitable for calculating burden of disease.”
- “There is no generally accepted criterion for quantification of the degree of cognitive impairment into a disability weight....It is important to consider the assumptions, uncertainties and limitations in the methods when interpreting the estimated values of the Environmental Burden of Disease with respect to Cognitive Impairment on Children.”
- “Although the exposure–response relationships presented in this publication are based on the available evidence at the time of the working group meetings, there are uncertainties especially when they are derived from limited numbers of studies. It should be noted that the exposure–response relationships will need to be updated using the results of future studies.”

Children will suffer cognitive impairment

The 2011 WHO report indicates the percent of children affected as aircraft noise level increases (WHO page 48):

- X In the noise range from 55 to 65 dB DNL, 20% of the children suffer cognitive impairment.
- X In the noise range from 65 to 75 dB DNL, 45 to 50% of the children suffer cognitive impairment.
- X Above 75 dB DNL, 70 to 85% of the children suffer cognitive impairment.

Response: The Air Force has commented on the 2011 WHO Noise report as noted above.

Lifelong effect

The 2011 WHO report further states, “exposure [to acute noise] during critical periods of learning at school could potentially impair development and have a lifelong effect on educational attainment” (WHO page 45).

Response: The Air Force has commented on the 2011 WHO Noise report as noted above.

Homes are now being demolished because of F-16 noise

Homes in South Burlington are being demolished exclusively because they are in the 65 dB DNL zone as a result of F-16 afterburner noise (demolition zoning permits, South Burlington City Hall). Under an FAA buyout program that the City of Burlington applied for, the federal government gave the City of Burlington \$40 million to buy properties where the noise reached or exceeded the 65 dB DNL [incompatible-with-residential-living threshold](#). So far, [the airport has demolished 127 homes near the airport in South Burlington](#) because the F16 afterburner noise reached or exceeded that 24-hour average 65 dB threshold. This once healthy neighborhood of affordable houses has been turned into a wasteland. Another 54 homes are awaiting demolition.

The buyout is over

The airport recently announced that it would purchase no more homes regardless of the number affected by F-35 noise, and therefore the 3410 homeowners who will be similarly affected by F-35 noise will be stranded.

The City of Burlington already admitted liability

By applying for an FAA grant and buying out these homes, the Airport, and its owner, the City of Burlington, admitted that there are damages and that they are liable for the damages to property owners subject to intense noise from the F-16's.

Response: Home buyout was one option of mitigating the noise and a completely voluntary program. Burlington International Airport has been acquiring property in support of airport operations since 1921. The voluntary purchase and removal of residential units in the noise impacted areas was initiated in 1992 as the result of FAA approved Noise Exposure maps and Noise Compatibility Program. As noted before, highly recommend reading the 2008 Noise Compatibility Program document. Neither the VTANG, nor the United States Air Force, are involved with the purchasing of homes as a noise mitigation procedure.

F-35 is more than 4 times louder than F-16

Although F-16 noise is quite high, the Air Force draft EIS shows that the 24-hour average 65 dB contour from the present-day F-16 noise barely skirts edges of Winooski and Burlington (EIS page BR4-23).

The Air Force EIS shows that basing 24 F-35's will put more than half of Winooski's houses and Burlington houses along Calarco, Chase, Rumsey, Barrett, Mill, Grove, and Patchen roads, and along portions of Pearl and Riverside, within that incompatible-with-residential-living contour (EIS page BR4-34).

The Air Force EIS provides a table that shows that the peak noise level (L_{max}) for the F-16 is 94 dBA and for the F-35 it is 115 dBA--a difference of 21 dBA--when each plane takes off and reaches 1000 feet above ground level (EIS page BR4-21).

The Air Force draft EIS states that each 10 dB increase is heard as a doubling of the loudness (EIS page C2). The 21 dB difference between the F-16 and the F-35 means that the F-35 will be *more than four times louder* than the F-16.

Response: Reference the Final EIS Vol II Appendix C page C-2, it states: “The difference in dB between two sounds represents the ratio of the amplitudes of those two sounds. Because human senses tend to be proportional (i.e., detect whether one sound is twice as big as another) rather than absolute (i.e., detect whether one sound is a given number of pressure units bigger than another), the decibel scale correlates well with human response. Under laboratory conditions, differences in sound level of 1 dB can be detected by the human ear. In the community, the smallest change in average noise level that can be detected is about 3 dB. A change in sound level of about 10 dB is usually perceived by the average person as a doubling (or halving) of the sound’s loudness, and this relation holds true for loud sounds and for quieter sounds. A decrease in sound level of 10 dB actually represents a 90 percent decrease in sound *intensity* but only a 50 percent decrease in perceived *loudness* because of the nonlinear response of the human ear (similar to most human senses).”

The table being referenced above (Table 3.2-1) which is on page BR4-23 of the Final EIS is intended to provide a side-by-side comparison of the F-16 and F-35 aircraft at similar power settings. Currently, approximately 95% of the F-16 takeoffs use afterburner and the EIS has 95% of the F-35 takeoffs in military power (non-afterburner). Referencing the actual noise contours on page BR4-31 of the Final EIS, one can see that the F-16 contours are slightly larger on the sides parallel to the runway and the F-35 noise contours are slightly larger off of the departure ends of both runways (note that they are not 4 times larger). This is because the same power settings used in the F-16 are not required in the F-35. The F-16 noise contours are based on 95% afterburner takeoffs and the F-35 noise contours are based on 95% military power. Additionally, the aircraft will be well above 1,000 AGL over populated areas. Residents 2000 feet away will experience L_{max} of 106 dB on takeoff and 87 on landing per Table C-1 of Appendix C on page C-5 of the Final EIS. Max levels will be for a short duration as the aircraft passes overhead. Table C-1 lists a nightclub at 110 dB for comparison.

Worker exposure to 115 decibels can be no longer than 28 seconds per day

The [National Institute for Occupational Safety and Health \(NIOSH\)](#) provides a chart showing the length of time a worker may safely be exposed to sounds at different levels. The chart shows that for the 94 dB peak noise level produced by the F-16, the allowed time duration for a worker is 1 hour each day. For the 115 dB produced by the F-35, the allowed time duration is only 28 *seconds per day*. The six minutes per day touted by certain supporters of F-35 basing--counting only 12 takeoffs per day --is therefore 5 minutes and 32 seconds too long for a worker under the NIOSH standard. *The six minutes they tout is nearly 12 times the NIOSH standard for a worker.*

The Air Force EIS states that there will be 7,296 F-35 operations over 260 days per year (EIS page BR4-3). This is an average of 28 operations per day, more than twice as many as touted by those supporters of F-35 basing, and therefore the duration of exposure to the noise will be substantially longer than the 6 minutes per day they tout--and that much longer than the NIOSH standard allows.

Response: Scenario 1 (which is the most likely scenario to occur) indicates there will be 5,486 airfield operations per year. An airfield operation consists of either a takeoff, landing, or low approach. On average, the Vermont Air Guard typically has 18 fly days per month x 12 months which equals 216 fly days per year. A typical day has 6 flights in the morning and 6 flights in the afternoon. 6 + 6 equals 12. Each mission generates a minimum of 2 airfield operations (i.e. a takeoff and a landing). 12 x 2 equals 24 airfield operations per fly day. 24 airfield operations x 216 fly days equals 5,184 airfield operations per year. 5,184 airfield operations is 302 operations less than the total 5,486 as cited by the EIS. The additional 302 operations allow for practice low approaches at the airfield if required for safety of flight or training purposes. Six minutes a day is an approximate time one would hear the jets as they take off and land. As they begin to roll the sound is low and reaches an instantaneous high and begins to get quieter. The 115 dB is experienced for approximately 1/8 of a second for anyone standing within 1,000 feet of the aircraft. The Air Force's response to comment pertaining to NIOSH standards is shown below. This information is from the Final EIS Vol II Appendix E "Response Comments" and is located on page E-1232 for ease of reference:

NO-24	R0510	The above standard is for a worker. That does not cover children who have significantly higher sensitivity. . . The Air Force would put itself seriously in violation of the CDC and NIOSH standards.	The NIOSH document cited was a recommendation, and was never accepted. The current daily occupational noise exposure limit for 115 dBA is 15 minutes, not 28 seconds. The 115 dB noise level cited from Table BR3.2-1 is an outdoor instantaneous maximum sound level, i.e., experienced for only approximately 1/8 of a second, per overflight.
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Property values

Concerning effect on property values, the Air Force draft EIS reports that studies conclude "that decreases in property values usually range from 0.5 to 2 percent per dB increase in cumulative noise exposure (EIS page C-50)."

Response: The above statement is being taken out of context. Reference the paragraph immediately following the above comments in the Final EIS Vol II Appendix C on page C-50 which cites another property value study and states the following:

"More recently, Fidell *et al.* studied the influences of aircraft noise on actual sale prices of residential properties in the vicinity of two military facilities, and found that equations developed for one area to predict residential sale prices in areas unaffected by aircraft noise worked equally well when applied to predicting sale prices of homes in areas with aircraft noise in excess of 65 dB DNL (1996). Thus, the model worked equally well in predicting sale prices in areas with and without aircraft noise exposure. This indicates that aircraft noise had no meaningful effect on residential property values. In some cases, the average sale prices of noise exposed properties were somewhat higher than those elsewhere in the same area. In the vicinity of Davis-Monthan AFB in Tucson, Arizona, Fidell found the homes near the AFB were much older, smaller, and in poorer condition than homes elsewhere. These factors caused the equations developed for predicting sale prices in areas further away from the base to be inapplicable with those nearer the AFB. However, similar to other researchers, Fidell found that differences in sale prices between homes with and without aircraft noise were frequently due to factors other than noise itself."

Air Force says expect a loss in range from 11% to 42% in home value

According to the numbers in the Air Force draft EIS the decrease in property values for houses experiencing the 21 dB increase in loudness is likely to be in the range from 11% to 42%.

Response: Nowhere in the EIS does it state the "Air Force says expect a loss in range from 11% to 42% in home value."

Data shows homeowners can expect an average loss of \$33,000 per home

[A study by respected Vermont real estate appraiser Rich Larson](#) found that homes in South Burlington in the F-16's 65dB contour were found to have suffered an average loss of 15% in assessed value compared to the amount the US government actually paid with its FAA buyout program that required appraisers to value the homes as if they were not affected by F-16 noise. The average home was purchased for \$200,000. The average decrease in assessed value because of F-16 noise was \$33,000 per home. The study was submitted to the City of Burlington.

GBIC “study” was flawed

The GBIC “study” found no loss in home value from airport noise. The GBIC study was flawed because nearly all the homes included were in the FAA buyout program for which appraisals set higher than market prices, as if there was no F-16 noise.

HUD, FHA, and VA loans in noise zone are not assured and disclosure will be necessary

“According to U.S. Department of Housing and Urban Development (HUD), Federal Housing Administration (FHA), and Veterans Administration (VA) guidance,” sites are only “*conditionally acceptable with special approvals and noise attenuation* in noise zones greater than 65 dB DNL” (EIS page C-49). “HUD, FAA, and VA recommend . . . *written disclosures to all prospective buyers or lessees of property within a noise zone*” (EIS page C-50).

Response: The above statement and quotations from the EIS are being taken out of context. Reference the entire paragraph 2.7 titled “Noise Effects on Property Values” on page C-50 Vol II Appendix C of the Final EIS:

“Property within a noise zone (or Accident Potential Zone) may be affected by the availability of federally guaranteed loans. According to U.S. Department of Housing and Urban Development (HUD), Federal Housing Administration (FHA), and Veterans Administration (VA) guidance, sites are acceptable for program assistance, subsidy, or insurance for housing in noise zones of less than 65 dB DNL, and sites are conditionally acceptable with special approvals and noise attenuation in noise zones greater than 65 dB DNL. HUD’s position is that noise is not the only determining factor for site acceptability, and properties should not be rejected only because of airport influences if there is evidence of acceptability within the market and if use of the dwelling is expected to continue. Similar to the Navy’s and Air Force’s Air Installation Compatible Use Zone Program, HUD, FHA, and VA recommend sound attenuation for housing in the higher noise zones and written disclosures to all prospective buyers or lessees of property within a noise zone (or Accident Potential Zone).”

As previously addressed above and clearly stated in the EIS, the type of “Accident Potential Zone” that is appropriate for Burlington International Airport is a “Runway Protection Zone”. No one lives in Burlington International Airport’s RPZs. Additionally, the Final EIS states on page BR4-49 that, “The City of Burlington, Vermont utilizes the FAA’s airport land-use compatibility guidelines, and as such, the RPZs have allowed development to be compatible with airport operations.”

Mitigation does not work

[A 2008 FAA report regarding the Burlington International Airport](#) states that “*Land acquisition and relocation is the only alternative* that would eliminate the residential incompatibility” (FAA page 29). The FAA report also states that “. . . noise barriers provide

little, if any reductions, of noise from aircraft that are airborne and can be seen over the barrier” (FAA page 35).

Response: There are multiple forms of very effective operational mitigation procedures that are mentioned in both FAA and AF studies. The VTANG has a proven track record of working with the local communities to mitigate noise impacts and has identified several options with respect to F-35 operational noise mitigation efforts that we can use to further reduce the impacts that are identified in the Final EIS. Examples of potential F-35 operational noise mitigation efforts:

- Preferred runway operations
- Modified departure ground tracks
- Reduced power climbout procedures
- Increasing pattern altitudes

Additionally, the Final EIS states on page 2-50 under paragraph 2.6.1 titled “Measures Adopted to Reduce the Potential for Environmental Impacts” the following:

“Once the F-35A is operating at the selected base(s), the pilots will have either consistently flown the operational profiles defined in this EIS or modified them to accommodate the unique qualities of the F-35A”. This statement, in conjunction with the VTANG’s commitment to work with the communities surrounding the airport/base, clearly illustrate that we take the noise issue seriously and will do whatever we can to further mitigate the impacts on our community.

The US constitution:

The [5th amendment](#) provides: “No person shall be . . . deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.”

The 14th amendment provides: “. . . nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.”

The Vermont Constitution:

[Article 1](#) provides: “All persons born free; their natural rights; slavery prohibited: That all persons are born equally free and independent, and have certain natural, inherent, and unalienable rights, amongst which are the enjoying and defending life and liberty, acquiring, possessing *and protecting property* . . . ”

Article 2 provides: “Private property subject to public use; owner to be paid: That private property ought to be subservient to public uses when necessity requires it, nevertheless, *whenever any person's property is taken for the use of the public, the owner ought to receive an equivalent in money.*”

Mission statement of the Guard:

In line with the US and Vermont Constitutions, the [mission statement of the Vermont Air National Guard](#) provides: "To maintain the highest caliber of trained personnel and equipment to accomplish the USAF mission of 'Fly, Fight, and Win.' Provide to the State of Vermont trained and equipped personnel *to protect life and property*, preserve the peace, order and public safety. *Add value to our communities* by involvement in local and state programs."

Under the [Memorandum of Understanding](#) signed by its base commander on April 13, 2012, the Vermont Air National Guard is dedicated to “pollution prevention” and “continual improvement

of its environmental management practices and programs,” and to “assure compliance with applicable Federal, State, local and Air Force-specific environmental regulations and policies.”

Rendering 3,410 Vermont homes within a noise contour that the Air Force revised draft EIS and FAA regulations say is unsuitable for residential use is not meeting those US and Vermont Constitutional responsibilities, is in violation of the Vermont Air Guard mission statement, and is outside the compliance requirements of the Memorandum of Understanding.

Low income and minority communities

The Air Force EIS shows that the negative effect of basing the F-35 in South Burlington will fall disproportionately on low income and minority communities, particularly in Winooski (EIS page BR4-80).

Response: For Scenario 1, the EIS states: “Under this scenario, the total population affected by noise levels of 65 dB DNL and greater would increase by 8 percent (+2,061) when compared to baseline. Of the 6,663 individuals (or close to 27 percent of total population in the area of comparison), 11 percent would consist of minority and 16 percent would be low-income populations. With the addition of over 2,000 people to the total affected population, the proportion of minority populations impacted would decrease relative to baseline conditions, from 13 to 11 percent. Additionally, the affected groups would decrease below the proportion for the area of comparison (12.1 percent), so no disproportionate effects on minority populations would result for ANG Scenario 1. However, when compared to county and state minority populations there would continue to be disproportionate impacts but decreasing by 2 percent from baseline conditions (13 to 11 percent). Conversely, the proportion of affected low-income population would increase under this scenario, exceeding both baseline conditions and the area of comparison by about 6 percent and county and state proportions by about 5 percent. This change would represent a disproportionate impact. However, the actual numbers of low-income individuals would comprise about 4.2 percent of the total population for the area of comparison.

Cost

[A Pentagon document shows](#) that the total cost to develop, buy, and operate the Lockheed Martin Corp. F-35 will be \$1.45 trillion and that the cost to buy each plane will average \$135 million plus an additional \$26 million for the engine.

Jobs

A study by professors at the [University of Massachusetts](#), shows that spending on military projects like the F-35 creates half as many jobs as spending on health care, education, infrastructure, and mass transit, and therefore spending on the F-35 while cutting health care, education, infrastructure, and mass transit *leaves more people unemployed*.

The Air Force EIS states that with the 18 plane F-35 scenario “there would be no net change in the number of military personnel” (EIS page BR4-77). The 24 plane F-35 scenario would bring “an increase of 83 full-time and 183 part-time traditional guardsmen” (EIS page BR4-78).

According to the Air Force EIS, 730 traditional Vermont Air National Guardsmen earn an average of only \$3,786.89 per year (EIS page BR4-78). These jobs are a fraction of part time: one weekend a month plus two weeks a year.

In April, 2013, [the Air Force announced it was upgrading all of the F-16's](#). The Air Force stated that it intends to [keep the F-16's flying until at least 2030](#). As indicated above, the Air Force EIS

says, “if there is no F-35A operational beddown at Burlington Air Guard Station (AGS) *the current mission would continue*” (EIS page PA-47).

Former Adjutant General Michael Dubie said that the Vermont Air National Guard would LOSE maintainer jobs if the F-35A were to be based here (South Burlington City Council public hearing, April 19, 2010). The F-35A will *not* be maintained at the Burlington Air Guard Station, as is the F-16. The F-35A will be maintained at a centralized location. At least half of the full time Vermont Air National Guard jobs are maintainer jobs.

Response: General Dubie’s quote has been taken out of context. The F-35 will be maintained by members of the VTANG at Burlington AGS. Some specialized maintenance skill positions will be replaced with different types of jobs specific to the F-35 (i.e. Low Observable Health Assessment (LOHAS)). The overall number of jobs is not expected to change under scenario one, reference Table BR2.1-3 on page BR4-6 of the Final EIS.

Guard personnel have varying degrees of part time pay based on schools, deployments, and mission demands. Guard personnel have access to health care benefits as well as certain retirement benefits after 20 years of service.

Wars

Burlington voters support our Vermont Air National Guard engaging in local life-saving activities.

In [2005 Burlington voters passed a town meeting resolution](#) stating that “we support our soldiers in Iraq, and the best way to support them is to bring them home now.” Providing our Vermont Air National Guard members with a weapon that will put them into more wars is inconsistent with that vote.

An August 2, 2013 Bloomberg news report, “[Canceling Lockheed F-35 Said to Be Among Pentagon Options](#),” states that “canceling the \$391.2 billion program to build Lockheed Martin Corp. (LMT)’s F-35 fighter jet is among options the Pentagon listed in its ‘strategic review’ of choices.” Defense Secretary Chuck “Hagel indicated *the Pentagon may have to choose* between a ‘much smaller force’ and a decade-long ‘holiday’ from modernizing weapons systems and technology.” Thus, the stark choice is between the jobs, pay, and benefits of our airmen and mega-profits for Lockheed Corp.

The Burlington City Council is uniquely positioned to do its part by saying yes to keeping the jobs for airmen and no to F-35 basing--and calling on the Pentagon to cancel the F-35.

Climate Change

Combustion of oil accelerates the threat to Vermont from climate change. Vermonters are looking for ways to stop climate change, including phasing out combustion of oil.

[Air Force Magazine reports](#) that “the Air Force burns 2.5 billion gallons or more of fuel per year.” Figures [given by Lockheed Martin](#) indicate that the F-35 has an internal fuel capacity of 2600 gallons, gets only ½ mile per gallon, and burns 2,400 gallons of fuel each hour it operates.

Operation of these gas-guzzling F-35 jets contributes to climate change and threatens Vermont. If only twelve of the F-35 jets take off each day and operate for just one hour, they will consume 28,800 gallons per day. As the Air Force projects them operating for 260 days per year, just

twelve F-35 jets operating will consume 7,500,000 gallons of fuel per year, producing 157 million pounds of CO2. Wars further increase fuel consumption and accelerate climate change.

Burlington citizens want our Vermont Air National Guard to defend Vermont from threats we face, including climate change. Burlington citizens do not want the Vermont Air National Guard to accept systems whose mere operation destroys houses, neighborhoods, and communities in Vermont, including a portion of our own Burlington community and neighboring towns, from the intense noise, the extreme crash risk, and accelerating climate change.

Response: While the Air National Guard is limited on how much it can impact fuel consumption for the F-16 or the F-35, it has taken positive steps to reduce energy consumption through use of solar panels, geothermal heat systems and state of the art construction leading to energy efficient facilities. As stated earlier, under Scenario 1 the emissions would go down by 3130 metric tons per year. (Table BR 3.3-3). This table was provided earlier in this document.

Democratic process at risk

The Vermont Congressional delegation, the Governor, and the Mayor all refuse to meet with any of the thousands of affected citizens. They fail to make sound argument based on facts. They run away from the facts provided by the Air Force in its revised draft EIS. They also failed to answer any of the [questions about F-35 basing posed by the Burlington Free Press on June 4, 2013](#).

The Governor and the Mayor went on a [private plane ride to Florida](#) along with the commercial real estate developer most heavily involved in the project to enrich himself and other developers by cleansing the neighborhood around the airport entrance of affordable houses and their families so as to put up commercial buildings on that valuable land. (Commercial use is compatible with significantly higher noise levels than residential use: EIS pages C-13 to C-15).

The Governor and the Mayor are both real estate developers, and both have a conflict of interest regarding the F-35 basing issue.

These Vermont public officials show no understanding of the extreme crash risk from early basing. They show no understanding of the serious health risks from extreme noise, including hearing loss, cardiovascular disease, and cognitive impairment of children, described by the Air Force in the EIS. They fail to insist on a mission for the Vermont Air National Guard that protects against--rather than accelerates--climate change. And they show no understanding of the hundred million dollar liability Burlington faces if it allows its tenant to base the F-35 at the Burlington Airport, shares operation of the runway with its tenant, or takes other steps to facilitate the noise and crash risk.

The process was fudged

A Pentagon insider told the *Boston Globe*:

- X "The base-selection process was deliberately 'fudged' by military brass so that Leahy's home state would win."
- X "Unfortunately Burlington was selected even before the scoring process began."
- X "I wish it wasn't true, but unfortunately that is the way it is. The numbers were fudged for Burlington to come out on top."
- X "If the scoring had been done correctly Burlington would not have been rated higher" [than the other National Guard locations under consideration by the Air Force].

The story about the “fudging” appeared on the [front page of the *Boston Globe*](#) on Sunday, April 14, written by the Globe's respected Pentagon reporter, Bryan Bender.

Scoring sheet demonstrates the fudging

The scoring sheet for Burlington is consistent with the report by the Pentagon insider. The scoring sheet for Burlington has a “no” answer to each question:

**Is there incompatible development in clear zones and/or accident potential zones?
Is there incompatible development in noise contours above 65 dB DNL?**

The “no” answers despite the fact that thousands of houses or commercial buildings are in the clear zones and/or accident potential zones and in the noise contours above 65 dB DNL. Thus, Burlington should never have gotten the points it received and should never have been considered a “preferred alternative”—except for the fudging.

Response: Ms. Kathleen Ferguson, Acting Assistant Secretary, Installations, Logistics and Environment has already answered the issue of the “flawed” data accusation. Below is her official response, which by the way was never printed locally:

“Re: "Selection of Vermont Guard Base for F-35 Jets was Based on Flawed Data, Raising Questions of Political Influence," Apr. 14, 2012.

There are a number of inaccuracies and misleading comments in the recent article about the F-35 basing process. Most concerning was the assertion that the Air Force made its decision based on "older data". That is not correct. I clearly explained to the reporter, and the Air Force has assured local officials in writing, that the analysis from the site survey shows that Burlington Air Guard Station would have made the F-35 candidate list even with the revisions.

The Air Force is still analyzing data and has not yet made a final basing decision. This important fact is buried in the story, and the article implies the Air Force has made a final basing decision based on criteria screening data. When the Secretary and Chief of Staff of the Air Force make a decision later this year, they will do so based on current, accurate information to include a comprehensive Environmental Impact Statement.

Also, it was disappointing that the article lent an extraordinary amount of credence to an "anonymous pentagon official" who characterized himself as having insight into the Air Force's basing process. This is unfortunate because, again, no final basing decision has been made.”

Human shields

The basing of the F-35s at the Vermont Air National Guard Station would make the Burlington airport a legitimate military target for potential enemies. Because unlike the F-16, the F-35 has stealth capabilities, and can be used as a stealth first-strike bomber capable of carrying a nuclear weapon, its basing will make the Burlington airport a more attractive military target than it is now.

Because of the dense population adjacent to the Burlington airport, this basing of the F-35 would violate provisions of international and US law, including Article 28 of [Geneva Convention IV](#) and Articles 51 and 58 of [Additional Protocol I](#), as described in an article, “[Targeting Decisions Regarding Human Shields](#),” by Captain Daniel P. Schoenekase, U.S. Army National Guard,

published in *Military Review*, September-October 2004. According to the article, those Geneva Convention provisions make it a “war crime” to position a military target so close to a large concentration of civilians that the civilians are made into “proximity human shields.”