

Memorandum
Burlington respectfully tells its tenant that F-35 basing
will not be permitted at Burlington airport

This memorandum is included by reference in the attached F-35 Resolution.

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 tenants 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 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 including a provision in its lease and/or in its joint use agreement with the Air National Guard requiring the federal government to indemnify the City for all losses to people and property; and by prohibiting F-35 basing in its lease and/or in its joint use agreement with the Air National Guard.

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.

In the Final EIS, the Air Force wrote, "At this time, the Air Force anticipates that F-35s would start arriving at the basing locations in 2015," (page E1233)—only two years from now.

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. Ten F-22's crashed during its first 10 years and 136,000 cumulative flight hours of operational status. Based on the year-by-year data in this table, the Air Force anticipates that in its first two years of operational basing the F-35 will have a mishap rate *236 times* higher than the number the Air Force cites for the current mishap rate for the F-16. The F-35 is expected to have *16 times* the probability of a mishap than the F-16 during its first 4 years of operational basing. The F-35 is expected to have *11 times* the probability of a mishap than the F-16 during its first 5 years of operational basing and *twice* the probability of a mishap than the F-16 during its first 10 years of operational basing (EIS page BR4-49).

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 mishap 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 mishap rate that is $236 \times 180 = 42,000$ times the mishap risk of ordinary commercial aircraft. After 10 years of operational basing, the reports indicate that the F-35 will have a mishap rate that is $2 \times 180 = 360$ times the mishap 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.

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.

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.

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 combustible, 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.”

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.

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, socioeconomics, environmental justice and protection of children, community facilities and public services, ground traffic and transportation, climate change, and irreversible commitment of resources (EIS pages BR4-20 to BR4-81).

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).

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.

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.

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.

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).

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.

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.

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 Air Force Base in 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.

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).

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.

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).

Children will suffer cognitive impairment

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

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

- Above 75 dB DNL, 70 to 85% of the children suffer cognitive impairment.

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).

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.

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's 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.

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.

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).”

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%.

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

The Air Force reports that, “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).

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).

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).

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.

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.

Pentagon considering canceling F-35 in view of tradeoff for jobs

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 at Burlington airport.

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.

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*:

- "The base-selection process was deliberately 'fudged' by military brass so that Leahy's home state would win."
- "Unfortunately Burlington was selected even before the scoring process began."

- “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.”
- “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.

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.”