### **APPENDIX A FAA RECORD OF APPROVAL ON 1989 NCP SUBMISSION**

### **RECORD OF APPROVAL BURLINGTON INTERNATIONAL AIRPORT BURLINGTON, VERMONT NOISE COMPATIBILITY PROGRAM**



### Memorandum

Subject ACTION: FAR Part 150 Noise Compatibility Dat Program for Burlington International Airport, Burlington, Vermont

SEP 2 | GGO

From:Director, Office of Airport Planning and Programming, APP-1

Reply to Attn. of:

and Programming, APP-1

To:Assistant Administrator for Airports, ARP-1

Attached for your action is the Noise Compatibility Program (NCP) for Burlington International (BTV) under FAR Part 150. The New England Region, in conjunction with FAA headquarters, has evaluated the program and recommends action as set forth below.

On March 27, 1990, the FAA determined that the Noise Exposure Maps (NEM's) for BTV are in compliance with the requirements of section 103(a) of the Aviation Safety and Noise Abatement Act of 1979 (ASNA) and Title 14, CFR Part 150. At the same time, the FAA made notification in the Federal Register of the formal 180-day review period for BTV's proposed program under the provisions of section 104(a) of ASNA and FAR Part 150. The 180-day formal review period ends September 23, 1990. If the program is not acted on by the FAA by that date, it will be automatically approved by law, with the exception of flight procedures.

The BTV program describes the current and future noncompatible land uses within the 65 DNL. The NCP proposes measures to remedy existing identified incompatibilities and to prevent future noncompatible land uses. Chapter 2 of the NCP summarizes the airport operator's recommendations and quantifies the expected benefits derived from full implementation of the program. The table on page 2-13 indicates that the number of people impacted would be reduced by over 5,000 with full implementation.

2

The Assistant Administrator for Policy, Planning and International Aviation and the Chief Counsel have concurred with the recommendations of the New England Region. If you agree with the recommended FAA determinations, you should sign the "approve" line on the attached signature page. I recommend your approval.

Paul L. Galis

Attachments



Administration

### Memorandum

Subject: ACTION: Recommendation for Approval of the Date: JUL 2 7 1996 Burlington International Airport, Burlington, Vermont Noise Compatibility Program

From: Manager, Airports Division, ANE-600

Reply to Attn. of:

To: Assistant Administrator for Airports, ARP-1

On March 27, 1990, a notice was published in the Federal Register announcing our determination of compliance for the noise exposure maps for Burlington International Airport, Burlington, Vermont, under Section 103(a) of the Aviation Safety and Noise Abatement Act of 1979. Coincident with that determination, we began the formal 180-day review period for Burlington's proposed noise compatibility program, under the provisions of Section 104(a) of the Act. The program must be approved or disapproved by FAA within 180 days or it shall be considered approved as provided for in Section 104(b) of the Act. The last date for such approval or disapproval is September 23, 1990.

We have reviewed and evaluated the proposed noise compatibility program and have concluded that it is consistent with the intent of the Act and that it meets the standards of Federal Aviation Regulations Part 150.

The documentation submitted by the City of Burlington was reviewed by the Airports, Air Traffic, Airway Facilities, and Flight Standards Divisions, and by the Assistant Chief Counsel. The public comment period closed June 25, 1990. No substantive comments have been received.

Each proposed action in Burlington International's noise compatibility program was also reviewed and evaluated on the basis of effectiveness and potential conflict with federal policies and prerogatives. These include safe and efficient use of the nation's airspace and undue burden on interstate commerce.

2

Our approval or disapproval recommendations on each proposed action are described in the attached Record of Approval. Each proposed action is described in detail in Volume 2: Noise Compatibility Program.

Vincent A. Scarano

Attachment

Concur Nonconcur

Assistant Administrator for Policy and International Aviation, API-1

Concur V

Chief Counsell, AGC-1

Sept. 21, 1990

Approved Disapproved

Assistant Administrator for Airports, (D

### RECORD OF APPROVAL

### BURLINGTON INTERNATIONAL AIRPORT BURLINGTON, VERMONT

### NOISE COMPATIBILITY PROGRAM

### I. INTRODUCTION

The City of Burlington, Vermont sponsored an Airport Noise Compatibility Planning Study under a Federal Aviation Administration (FAA) grant, in compliance with Federal Aviation Regulations (FAR), Part 150. The Noise Compatibility Program (NCP) and its associated Noise Exposure Maps (NEM) were developed concurrently and submitted to FAA for review and approval on January 30, 1990. The NEM was determined to be in compliance on March 27, 1990. The determination was announced in the Federal Register on May 1, 1990.

The Part 150 Study was closely monitored by a Technical Advisory Committee, which represented the City of Burlington (including airport administration), City of Winooski, City of South Burlington, town and regional planning agencies, state transportation and environmental agencies, fixed-base operators, airport users, and community residents. A series of Technical Advisory Committee meetings were held, with the consultant presenting material and findings. Three public information meetings were held. The consultant addressed comments at all of these meetings, and subsequent written comments as well.

The study focused on defining an optimum set of noise and land use mitigation measures to improve compatibility between airport operations and community land use, presently and in the future.

The resultant program is described in detail in <u>Volume 2: Noise</u>

<u>Compatibility Program</u>, Sections 2, 3, 4, and 5. Section 2 summarizes the NCP, Section 3 analyzes operational alternatives, Section 4 analyzes land use alternatives, and Section 5 contains information on implementation and monitoring.

The program elements below summarize as close as possible the airport operator's recommendations in the noise compatibility program and are cross-referenced to the program. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval, or other determinations do not represent the opinions or decisions of the FAA.

The approvals which follow include actions that the City of Burlington recommends be taken by FAA. It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

### II. PROGRAM ELEMENTS

### A. Airport Operations Measures.

 Extension of Taxiway G. (Sections 2.1.1, 3.1.1, and 5.1; Figure 3-2.)

Taxiway G would be extended from the existing intersection with Taxiway A to Taxiway C, parallel to Runway 15-33 (Figure 3-2.) The Taxiway extension is offered as an alternative to a noise barrier along Airport Drive, from Patrick Street to Airport Road (Figure 3-1). Aircraft presently taxi adjacent to the terminal apron, which is a route significantly closer to residents across Airport Drive. Based on this taxi procedure, calculated maximum A-weighted noise levels from the Shorts SD-360 aircraft range between 66 and 70 dBA (Table 3-2).

Approved: This measure would increase the distance of taxiing aircraft from residents across Airport Drive. Noise reduction would be equal to or greater than that provided by an alternative noise barrier -- 7 to 17 decibels.

2. Terminal Power Installation and APU/GPU Use Restrictions. (Sections 2.1.2, 3.1.2, and 5.1.)

Installation of terminal power hookups (already underway) for aircraft would reduce significantly the need for aircraft to park at terminal gates and use internal auxiliary power units (APUS) or ground power units (GPUS). The installation would be followed by a rule prohibiting the use of APUs or GPUS between 10:00 p.m. and 7:00 a.m., except for emergency or extenuating circumstances.

Approved.

3. Nighttime Bi-directional Runway Use. (Sections 2.1.3, 3.2, and 5.1.)

In order to minimize late-night operations over the City of Wincoski (north of the airport) the air traffic control tower would use Runway 15 for departures and Runway 33 for arrivals, traffic conditions permitting.

Approved. The total number of residences in the Wincoski area exposed to 65 DNL would decrease from 988 to 285. DNL noise would decrease approximately 3 dBA and increase over less populated areas to the south of the airport.

3

Noise Abatement Flight Paths for Runways 15 and 33
 Departures, and Runway 15 Arrivals. (Sections 2.1.4, 3.3, and 5.1.)

New procedures would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees. Successive turns of Runway 33 departures and Runway 15 arrivals would avoid downtown Burlington to a greater extent.

Approved. Single-event-level contour analysis indicates a reduction in direct overflight noise of approximately 5 dBA in the most seriously impacted areas of Winooski (north of the airport) and Williston (south of the airport).

 Voluntary Limits on Military C-5A Training. (Sections 2.1.5, 3.5.1, and 5.1.)

An informal agreement with the military (already implemented) limits C-5A operations to only necessary takeoffs and landings. No training operations will be conducted.

Approved. Elimination of C-5A training activity would not show up in DNL analysis, but the elimination of probably the noisiest and annoying single event at the airport would be noticed.

 Voluntary Minimization of F-16 Multiple Aircraft Flights. (Sections 2.1.6, 3.5.2, and 5.1.)

Military personnel have been scheduling as many singleaircraft, as opposed to multiple-aircraft, flights as possible.

Approved. A flight of two aircraft is perceived as three dBA louder than a single aircraft.

7. <u>Voluntary Army Guard Helicopter Training Controls</u>. (Sections 2.1.7 and 3.5.3.)

The majority of National Guard helicopter training operations is conducted away from the Burlington area. Landings and takeoffs at the airport are significant on Guard training days. The Guard will continue to conduct training away from the airport when conditions permit. In terms of long-range planning, the Guard should consider consolidating operations at Camp Johnson, a rural location distant from the airport.

Approved. This measure gives support to an already implemented policy and offers a recommendation for longer-term noise abatement.

### B. Monitoring and Review Elements.

8. Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status. (Section 5.3.1 and 5.3.2.)

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unforecast changes in the level or mix of airport activity, and non-compliance with the NCP. Continuation of the Technical Advisory Committee as a Noise Abatement Committee is also recommended as well as use of a computer program (EXP) to indicate when revision of the NEM/NCP is appropriate. Finally, purchase of a permanent noise monitoring system is recommended.

Approved. These measures would ensure the continuation of noise abatement efforts and provide analytic tools to accomplish it.

9. Flight Track Monitoring. (Section 5.3.3.)

The airport would utilize an outside firm to perform flight track analysis of FAA radar tapes on a temporal sampling basis.

Approved. This measure would provide follow-up data on airport operations measures 3 and 4 above.

### C. Land Use Measures.

 Land Acquisition and Relocation. (Sections 2.2.1, 4.1.1, and 5.2.1.)

Incompatible land use includes six mobile homes within the 65 DNL contour and 54 other residences within the 70 DNL contour. A purchase and relocation program would be voluntary and comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Approved. In combination with airport operational measures this remedial measure would provide for compatible land use.

5

11. Soundproofing. (Sections 2.2.2, 4.1.3, and 5.2.2.)

Qualified compatible residential and noise sensitive land uses within the 65 and 70 DNL contours, and qualified compatible non-residential land uses in the 75 DNL contour, would be included in a soundproofing program. Three hundred twenty-seven residential and two non-residential land uses would be involved. The program would be conducted in conjunction with the above acquisition and relocation program.

Approved. Where effective, soundproofing would provide for compatible land use.

12. <u>Easement Acquisition Related to Soundproofing</u>. (Sections 2.2.3, 4.1.2, and 5.2.3.)

The airport would attempt to negotiate avigation easements within the 65 DNL contour, in return for sound attenuation assistance. Easements would provide for the right of flight, right to cause noise, control over structures, and other use of the land.

Approved. This measure would ensure compatible land use.

13. Airport Zoning Overlay District. (Sections 2.2.4, 4.2.2, and 5.2.4.)

This land use measure would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation.

<u>Approved</u>. The measure would have a significant effect on ensuring future compatible land use.

14. Easement Acquisition for New Development. (Sections 2.2.5, 4.2.1, and 5.2.5.)

Easements as described in measure 12 above would be obtained for new development within the 65, 70 and 75 DNL contours.

<u>Approved</u>. This measure would also help ensure future compatible land use.

6

15. Real Estate Disclosure. (Sections 2.2.6, 4.2.3, and 5.2.6.)

A real estate disclosure policy would be developed for land uses within the 65 DNL contour, and implemented through revisions to zoning ordinances.

Approved. The identification of airport noise impacts on real estate will foster awareness of the relationship between the airport and the community, and serve as notice to potential buyers or lessors of airport noise considerations.

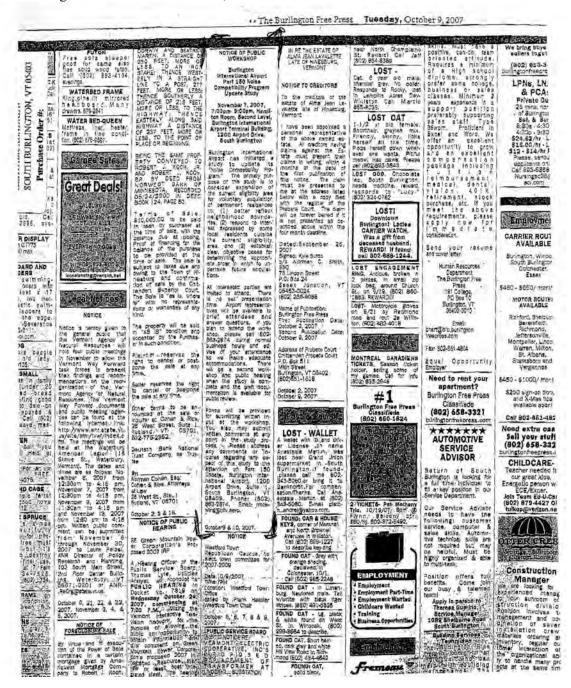
### **APPENDIX B**

NOTICES, BACKGROUND MATERIAL, SIGN-IN SHEETS, AND COMMENTS RELATED TO PART 150 PUBLIC CONSULTATION

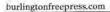
### B.1 Material Related to the Initial Public Consultation and the November 7, 2007 Workshop

### **B.1.1** Workshop and Initial Public Consultation Announcement

The Burlington Free Press – October 9, 2007



### The Burlington Free Press – October 10, 2007



•• The Burlington Free Press Wednesday, October 10, 2007

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BURLINGTON INTERNATIONA
1200 AIRPORT DR. #1

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NOTICE OF PUBLIC

Burlington International Airport Part 150 Naise compatibility Program Update Study

November 7, 2007, 7:00pm- 9:00pm, Hamil-ton Room, Second Level, Burlington International Airport Terminal Building.

South Burlington

Burlington international
Airport has initiated a
study to update its
Tkoiss Compatibility Program. The orimary purpose of the study is to
the surrent eligibility area
for voluntary acquisition
of permanent residences
to: (1) better reflect
neighborhood boundarress, (2) respond to Interset, surpressed by some
local residents outside
the current eligibility
area, and (3) establish
clear, sibjective bases for
determining the appropriate aider in which to undetrailed in thurs occuliaforestable thurse occuliadertake future acquisi-

All interested parties are invited to attend. There is no set presentation time. Airport representatives will be available to brief attendes and answer questions. If you olian to attend the work-shop, please call 802-863-2874 during normal business hours and advess of your attendances as we insure adequate accommendations. There will be a second work-shop and public hearing when the study its complete and the forth deput public hearing when the study its complete and the forth deput.

public review.

Forms will be provided for submitting written input at the workshop. You also may submit witten comments any authorit witten comments at any point in the study process. Please address any comments or in-quires regarding any ospect of this study to the attention of: Part 150 Update, Burington International Airport. 1200 Airport Direy. Suife 1. South Burlington, VT. O5403. Phone: (BC2) B63-2874. Emilia wincewing@dby.com

October 9 & 10, 2007 STATE OF VERMONT

### Legal Notices

Chittenden Probate Court P.O. Box 511 Main Street Builington, VT 05402 (802)651-1518

October 3 & 10, 2007.

### Lost & Found

LOST - WALLET A wallet with ID and driver License. On name Amastasia Martun, was lost near Gand Union supermarkel in South Burlington: I'r feund-please oal me 802-343-5060, or bring it to Banknorth-for compensation. Thanks. Call Amassalesia Martun at (802) 343-5060. E-mail platonanderickayboo.com.

andrei@yahoo.com FOUND BABY MOCCASIN BOOT, Apple Fest in South Hero, Call (802) 655-0379

FOUND: CAR & HOUSE KEYS, come of Marshall and North Brownell Avenues in Williston. Call (802) 899-1227 to describe key ring.

FOUND CAT - in Lumen-burg. Neutered male. Tall w/white with black tiger stripes. (860) 491-5635 FOUND CAT - Lg. black & white found on West St. in Winoski. (802) 999-3664 to describe.

FOUND: CAT, solid black, in Colchester, 10/4, call (802) 985-2248

FOUND: DIAMOND RING.

FOUND DOG, Old, yellow, medesum sized dog on Spear Street (Shelburne) 10/9 (802) 985-2248

FOUND -GOLD RING at C.P. Smith Playground on 10/4. (502) 862-0424

FOUND: Man's wallet.
Ethan Allen Shopping
Ctr., near post office,
(602) 862-679 to identify.

FOUND
TWO Bicycles in Jericho We assume they were stolen. Email burnsdant@aql.com to describe them, if you think they are yours.

#### Personals

MONTREAL CANADIENS holder, selling some of my games. Call for info (802) 635-2948

PATRIOT TICKETS! have 2 tickets to see the Redskins Sunday 10/28 & Jets Sunday 12/16. Would like to trade 2 tickets to get 4 to either game. Call Tom at (802) 338-8237.



#### EMPLOYMENT

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### Employment

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ADVERTISING TEAM COORDINATOR
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FOUND - VERIZON CELL PHONE. Fidely PM @ Pickmond Farmers Market 108 802-434-5273

LOST BLACK TOOL BOX Special Control of Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Palls Rd or Market Rd area on 10/3/07 around 4pm reverse of the Shelburne on Shelb

### Employment

### \*\*\*\*\*\* RECONDITIONERS

Freedom Chrysler and Saturn of South Builington are HRING! We need motivated people to work it our reconditioning detail shop. Be part at a team that offers benefits, training and a chance to grow in our company. Must have great attitude, reliable transportation and driver's licenae. Experienced reconditioners preferred.

Apply in person to David McMahon, Reconditioning Dept. Manager, 1089 Shelburne Road, South Burlington

### \*\*\*\*\*\* SERVICE ADVISOR

Saturn of South Builington is looking for a full time individual to fill a Key position in our Service Department.

Our Service Advisor needs to have the following: customer service, computer & sales skills. Automotive technical skills are not required but may be helpful. Must be highly organized & able to multi-task.

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Apply in person to Theresa Guerino, Service Manager 1089 Shelburne Road South Burlington

### **Building Services**

Building Services
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desired candidate will
have akills in hacilities
maintenance that
could include
carpentry, spectrical
AC / Heating etc. This
position will be
responsible for hands
on maintenance and
will also coordinate
with local vendors
who support building
mishierance.

Send Resume:

The Burlington Free Press.
Human Resources
Department
191 College Street,
PO Box 10
Burlington, VT 05401

E-mail: bhart@bfp.burlington freepress.com Fax: 802-651-4804

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### Employment

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Please respond in confidence for Todd Warren
Otter Creek
19 Each Place

Otter Creek 19 Echo Place Willisten, VT 05495 Twarren@durasol.com

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### CUSTODIAN

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### Employment

The Burlington Free Press has a great opportunity in our home delivery operation. We are looking for on aggressive, cars er — min de didividual who is capable of achieving service goals by training and motivating a force of independent Contractors, This is a great opportunity for a handson manager who isn't afraid to roll up the sleeves and lead by example. You must be able to excel in a fast-paced, multi-task environment. You will gain experience in all aspects of our The Burlington Free environment, You will
gain experience in all
aspects of our
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our newspaper
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Chittenden and
Addison Countles.

We offer a competitive starting wage, plus mileage reimbursement and full benefits, including 401 (K). Reliable, insured vehicle and valid driver's license required.

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Please apply in person to:
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357 Avenue C, Williaton, VT 05495
No phone calls please

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### PAGE DESIGNER

The Burlington Free Press is Moking for an all-purpose designer in our news department. Work includes laying our pages, designing charts, graphs and other informational

#### Employment

### HARRINGTONS

#### Seasonal **Opportunities**

Vermont's Premier manufacturer of Smoked meats, We have the following s a s o n s i opportunities available with FT & PT s h if ts n n g experience necessary, we will train you.

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Apply in person. 210 East Main St Richmond, VT 05477

#### SECURITY **POSITIONS**

Wackenhut Security is seeking motivated individuals for Several F/T and P/T openings, NO Mon-Fri day shifts available, hiring for 7A-3P, 3P-1P and 1P to 7A. If you are interested in working in a multi task environment and are a multi ta environment and comfortable w computers then come learn how to be a Control Center Operator/Dispatcher, interviews will be conducted on 10/11/2007 from IDam-3pm at vermon Dent. 10/11/2007 Iram Idam-Spm at Vermont Dept. of Labor, 63. Pearl St., Burlington, V1,05452. All positions offer the following benefits: Medical, Dental, Life, 401k, Vacation, Weekly pay free training and uniforms. Starting pay \$10.50 Hr. HS Diploma or GED required. EOE/M/F/D/V

### Veterinary

Technician

\$20/hr for right person!

Experience & great
people skills required:

Our techs provide
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anesthesia, & dental
care, & have an unportant role in educating
dients. We seek
long-term employees.
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401K.

Send letter of interest
Send letter of interest

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Send letter of interest
& resume to:
arkresumes@gmail.com
Ark Veterinary Hospital
5070 Shelburne R# 5
Shelburne, VT 05482
or FAX 802-985-5233

#### **Employment PT**

Cafeteria Worker

The Other Paper – October 11, 2007

The Other Paper, Thursday, OCTOBER 11, 2007

## CENTER

### d Update

ations antenna on the roof, Community Drive, were both proved.

onditional use and site plan plications of TelJet Longhaul amend a previously apoved plan for a 30,000 sq. ft. ht manufacturing facility re both approved. The endment consists of installa 30-inch high telecommuations antenna on the roof, Thompson Street.

ite plan application of Logic oply to amend a previously proved plan for a 30,000 sq. light manufacturing facility raising the building elevaby two feet, thereby necesiting a 1'2" height waiver, ling a sidewalk and curb, reing landscaping to screen posed transformer, and reing light pole locations, 35 ompson Street, was apoved.

reliminary plat and final plat plication of Pizzagalli Proples for a planned unit develment consisting of a 10,000 ft. medical office building,

See DRB p. 25

### **Notice of Public Workshop**

### Burlington International Airport -Part 150 Noise Compatibility Program Update Study

Submitted by Robert McEwing, director, Planning & Development, Burlington International Airport

Burlington International Airport has initiated a study to update its "Noise Compatibility Program." The primary purpose of the study is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond to interest expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions.

All interested parties are invited to attend. November 7, 2007, 7–9 p.m., Hamilton Room, Second Level, Burlington International Airport Terminal Building, 1200 Airport Drive, South Burlington

There is no set presentation time. Airport representatives will be available to brief attendees and answer questions. If you plan to attend the workshop, please call 802-863-2874 during normal business hours and advise of your attendance so we insure adequate accommodations. There will be a second workshop and public hearing when the study is complete and the draft documentation is available for public review.

Forms will be provided for submitting written input at the workshop. You also may submit written comments at any point in the study process. Please address any comments or inquires regar 1 ig any aspect of this study to the attention of: Part 150 Update, Burlington International Airport, 1200 Airport Drive, Suite 1, South Burlington, VT 05403. Phone: (802) 863-2874. Email: rmcewing@btv.aero.

# L ESTATE

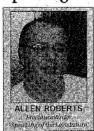
The Other Paper – October 18, 2007

Page 4

The Other Paper, Thursday, OCTOBER 18, 2007

### **LEGISLATIVE** Updates

### Speaking of the Legislature



Speaking of the Legislature. let's instead talk about the leg-islators. Specifically, let's talk about their columns in The Other Paper, their lack of col-umns, and how their columns can better serve our commu-

am concerned that the quantity and quality of our legislators' columns have noticeably decreased over the last several months. The most notable example is that it's been a long time since Representative Ann Pugh has submitted a column. Additionally I have seen an inconsistent publication of Representative Helen Head's and Representative Helen Head's and Experientish's columns. There are three common throads: I beven though the Legislature is not in session, there are still numerous Legislature happens. numerous legislative happen-ings and news that can be re-

layed to our South Burlington community; 2) The problems with Act 250, Act 60, Act 68, high tax rates, ourrageous property taxes, and out of control education spending have not good away just because the Legislature is not in seasion; and 3) They are our elected representatives 366 days a year, not just when the Legislature is in session.

sion.

I have been consistently underwhelmed and disappointed with the content of their columns. Recently, our representatives' Legislative Update columns have focused primarily on their families, their kids, their vacations, and their hobbics. Basically, they have used the forum provided by The Other Paper to talk about anything and everything except the purpose of their column: Legislative Updates. For example, I expect to read about how they plan to vote, learn about the specifics of a certain bill, or even become informed about the specific number of calls, emails, voicemails, they have received both for and against a particular bill. After all, why must I wait to find out how our representatives voted on an issue in order to find out where they stand on that issue? Discussions with friends and neighbors make it clear that their—and my—expectations are not being met.

My goal in writing today's col-

See LEGISLATURE p.25

### The Legislature Off-Session



While the Legislature has not been in session since as way, you might not know that from following the news. Hardly a day passes without press coverage of one issue or another involving the Legislature. How can this be? Are legislative can this ber Are legislative committees meeting? Are votes taking place? Are legislators paid for this work off-session? Much of this activity is a signifi-cant change from the past, ac-ording to the "old-timers" I have asked. That while historically, representatives and sena-tors always performed ceremo-nial functions off-session—and spent a lot of time in their com-munities listening to the wishes of those whom they represent—

they did not engage in substan-tive legislative work nearly to the extent that they do today. As axpayers, are you paying for this work? You will be glad to knowthat, for the most part, you are not. There are a few study-committees for which per diems and expenses are paid, but only a hand-full of legislators get this benefit in any given year. But you may not be as glad to learn that this year-round work-load makes it impossible for many citizens to even consider serv-ing the state in this capacity. We will see where this trend takes will see where this trend takes

My focus between last May and My focus between last May and this coming January has been primarily on workforce and economic development issues. I work closely with the state Workforce Development Council, the Vermont Department of Labor, our local Chamber of Commerce. Vermont. Businesses for Social Responsibility and other groups, to ensure that our state's limited resources are well used to promote growth for our Vermont businesses and work opportunities for our citizens. I am also working closely with a number nities for our citizens. I am also working closely with a number of schools to develop internships for our high school and college students. It is through this focus that I am working on the serious problem of health care costs. One of the key cost-drivers is the shortage of

trained workers in the health care field.
This coming year will be the second of the two-year biennium. As such, there are many bills pending that have not yet been acted upon. In addition, he governor's vetoes of the energy and campaign finance bills lief those issues in need of further action. Many of you have called to ask the status of the seat belt/cell phone bill. The House passed restrictions for junior operators and adults but the Senate failed to concur. A conference committee was A conference committee was appointed but did not meet. As for education funding, a bill was passed that requires very close study and scrutiny of how close study and scruitiny of how towns are spending their money for schools—and some incentives and penatties for controlling spending. There will be continued work on this issue as the data is compiled. You likely have read that the House Ways and Means Com-mittee has actually been meet-ting to been problem of the con-trolling to the controlling of the con-trolling to the controlling of the con-trolling of o ing to begin looking closely at the possibility of replacing the current residential property tax with an income tax. Currently, sixty percent of Vermonters al-ready pay their property taxes based on income (and not on the value of their house). At the moment, there are no specific bills pending and no formal action will take place until at least lowers.





BUILINGTON INTERNATIONAL AIRPORT
PART 150 NOISE COMPATRILITY PROGRAM UPDATE STUDY
NOVEMBER 7, 2007, 7:00pm-9:00pm, Hamilton Room,
LEVEL, Buillington International Airport Terroral Builloin
1200 Airport Drive, Soltel Buillington

Burlington International Airport has initiated a study to update as "Noise Compatibility Program." The primary purpose of the study controlled the program of the study processed of the program of the study of the program of the study of the program of the study of the program of the program of the study of the program o

asy process.

Please selfuses any consuments or inquires regarding any aspect
of this study to the attention of
Part 150 Update, Birifrotan Interestional Airport,
1200 Airport Drive, Swite 1, South Burlington, VT 05403.
Phone: (802) 863-2874.
Email: nuceving@btvastv.



Page 3

### The Other Paper – November 1, 2007

The Other Paper, Thursday, NOVEMBER 1, 2007

### COMMUNITY CALENDAR

### AROUND OUR CITY

Attribut Evenings: Performers meeted who love to sing in a women's a cappella chorus. Contact Karen at 879-9040, or cregancharmovahoo.com.

THURSDAY EVENINGS: BINGO: Knights of Columbus, 2 Berard Drive, South Burlington. Doors open at 5:30 p.m. Bingo starts at 6:30 p.m. Food and refreshments.

NOVEMBER 2-3: PTO TAG SALE: NOVEMBER 2-3: PTO TAG SALE: November 2, 4-7 pm. and Novem-ber 3, 8 a.m.-2 p.m. Orchard School, 2 Baldwin Avenue, Soanie Burlington. Proceeds benefit SLIMY (Sustainable Living Initia-tives, Motivating Youths). If you have stems you would like to do-nate, call Mary Gleason at 863-3395.

NOVEMBER 5: FOOD DRIVE: Drs. NOVEMBER 5: FOOD DRIVE: Dis Marky Family Chiropractors, Ser-vices for established patients are in exchange for food or cash do-nations for the Chirenden Emer-gency Food Shelf. 2041 Williaton Road, South Burlington. Call 863-0334 for more information.

NOVEMBER 6: "NAVIGATING NOVEMBER 6: "NAVIGATING THE COLLEGE ADMISSION PROCESS A PARENT'S GUIDE": 7-8-30 p.m. SBH5 Auditorium. Dob Shaver, Director of Admissions at Smith College will speak. The went is free and open to the pub-lic.

NOVEMBER 7: KIL TUTTLE MIDDLE SCOOLPLO MEETING MIDDLE SCHOL FIG. METHING 9, 75:19 pm. Our theme will be-The Developmental Besigns Approach to Middle School" (i.e., what the Responsive Classroom Approach tooks like at the middle school level), all FITIMS parents and guardians are welcome to attend to hear information, meet other families and faculty mem-bers, and learn more about our school. Questions? Call Susject Metrick at 660-3189 or metricks\*champlain.edu.

NOVEMBER 7: LEARN TO READ HEBREW: 4:30-6 p.m. Temple Sinai, 500 Swift St., South Burlington. 6 FIRES sessions be-giming November 7th. No prior experience necessary. Call to reg-ister 862-5125

NOVEMBER 8: ASCENSION CHILDCARE FALL COMMUNITY CHILDCARE FALL COMMUNITY
WORKSHOP SERIES: CHALLENGING BEHAVIORS, A FOILLENGING BEHAVIORS, A FOILLENGING BEHAVIORS, A FOILLENGING BEHAVIORS, A FOILLENGING BEHAVIORS, A FOILBUTTINGTON, I deas around challenging behaviors and empowering children to make good and
beathiry choices. Certificate of two
tours of professional development training will be available to
all participants who attend the all participants who attend the full two hour workshop. Free parking and refreshments. R.S.V.P is appreciated, but not required. For more information, contact battle Gonyaw at 658-0212 or aschildcar@verizon.net.

NOVEMBER 10: AARP CHAPTER # DOVI MEETING: 9:30 a.m. Social "HOW MEETING: 9:30 a.m. Social time. 10 a.m. Meeting. South Burlington City Holl. 575 Dorset Street inext to the fire station). South Burlington. Program on Dayet. The presenter is Jean Porden. "The loy of Meandering Solo." Guests welcome. For more Information. contact. Bachel

LUTHERN CHURCH HOLIDAY BAZAAR: 9 a.m. 4 p.m. 1560 Willston Road, South Burlington. Crafts, plants, baked goods, toys, books, and other treasures: A va-tiety of hot soups and refresh-ments will be available for pur-chase. For additional informa-tion cell the behavior. 86 864, 5837 tion, call the church at 864-5537 or visit www.clc1560.org.

NOVEMBER 10: ANNUAL HOLI-DAY BAZAAR: 9 a.m.-2:30 pm. All Saints Episcopal Church, 125 Spear St. South Burlington. Bake sale, crafts, books, plants, and quest treasures. White Elephants. Soup, sandwiches and dessert huncheon. For information, call 862-9750.

NOVEMBER 10: ANNUAL ROLL-DAY BAZAAR: 9 a.m.-2:30 p.m. Faith United Methodist Church. 899 Dorset St., South Burlington (1904th of 1-89 Overpass). Crafts, baked goods, jums and jelles, pickles and relisites, pickles and relisites, pickles and relisites, assorted pies, alk kinds of fudge, baked beans, the famous "Cookie Walk", Christmas items, books, children's books, games and toys, puzzles, attic treasures and small appliances. Handicapped acces-sible. For more information, call. 263:-6784 or 863-8553.

NOVEMBER 23: SOUTH BURLINGTON HIGHSCHOOL CLASS OF 1997 10 YEAR BE-UNION Friday November 23rd, 7-10pm, Sunset Ballroom, 1712 Shelburne Road, South Burlington, 840/person or 880/ cupple, Questions, please contact Jon Gibson 617-817-2169 or send and email to and email t sbhs1997reunion@yahoo.com.

NOVEMBER 23- DECEMBER 24-GIFT WHAPPING SERVICES BY THE BURLINGTON EMER-GENCY SHETTER: University, Mall, South Burlington. For more information, and to sign up as a volunteer, please call the shelter at BG2-9879, Ask for Jeanne or Melodix.

NOVEMBER 26: LEGISLATIVE NOVEMBER 28: LEGISLATIVE PORUM: 7 pm. South Burlington Community Library. South Burlington representatives will listen to your questions and con-cerns while preparing for the leg-islative session that begins Janu-ary 8, 2008.

NOVEMBER 26: MYSTERY AU-THOR ARCHER MAYOR SPEAKS: 7 p.m. Barnes and Noble Book-sellers, 102 Dorset Street, South Butlington, Pree and open to the public.

NOVEMBER 29: ASCENSIÓN
CHILDCARE FALL COMMUNITY
WORKSHOP SERIES: MY CHILD
IS GOING TO KINDERGARTEN
SOMEDAY 6:15 p.m. Ascussion
Childcare, 95 Allen Road, South
Burlington. Certificate of two
hours of professional development tathing will be available to
all participants who aread the
full two hour workshop. Free
parking and adreshments, R.S.V.P.
is appreciated, but not required.
For more information, contact
Katle Gonyaw at 638-0212 or
aschildcar@verizon.net.

### AROUND THE AREA

CHRONIC FATIGUE SYNDROME Profee. The loy of Meandering Sciol Citats welcome. For under Man PERROMYALGIA SUPPORT GRUP. 1-3 praceery 3rd Thurston Doron 877-387.

NOVEMBUR 10: COMMUNITY On North Avenue, Burlington Police Information, call CEIDS Association 1-800-296-1445 or www.monkeywithwings.com/ ytefidds.html

ALZHEIMER'S SUPPORT GROUP: 10:30 a.m.-12 p.m. The Arbors at Shelhume. 687 Halbor. Arbors at Shelhume. 687 Halbor. Rd. Shelburne. Meetings held very 3rd Wednesday of each month, Care for the Caregiver will be the theme. November 21st. This is a fire support group series for individuals and famillies in the early stages of Alzheimer's dis-cesses aid related dementias. Giv-romore Information, comtact Nicole. Houston at 385-5800. Houston at 985-8600.

WHY NOT NOW? VERMONT ADULT LEARNING GED TEST-ADULT LEARNING GED JEST PING GED testing is open to the community three times a month, including Saturdays. If you are 16 years of age or older, you are ell-gible for our services. For more information, call 846-7245 x 100 or visit www.udultlearning.org.

LOOK GOOD.....FEEL BETTER PROGRAM: 3rd Wednesday of every mouth at 3 p.m. 2rd Mora day of every mouth at 6 p.m. Call 1-800-ACS-2345 to register. Wednesday class listings: Nov 21, December 19. Monday class listings: Nov. 12, Dec. 10.

NOVEMBER 1: PEACE CORPS MEETING: 6:30-8 p.m. Williams Family Room, Davis Center, UVM. For more information, contact Amanda Richardson at 656-6260 or peace.corps@uvm.edu or www.uvm.edu/~pcorps.

NOVEMBER 1: CRITICALLY AC-CLAIMED HISTORIAN LECTURE TAIMED HISTORIAN LECTURE:
7 p.m. W. H. Brands will be at the
McCarthy Arts Center for a spe-cial lecture entitled "Why Foreign
Policy is 50 f. "ssy." The event is
free and open to the public.

NOVEMBER 2: FIRST FRIDAY ART WALK: 5-8 p.m. City-wide, Burlington. For more informa-tion, call 264-4839 or email info@artmapbarlington.com.

NOVEMBER 3: BENEFIT CON-NOVEMBER 3: BENEFIT CON-CERT FOR ALZHEIMER'S ASSO-CIATION OF VERMON'E 7 p.m. Waterfront Theater Film House, Burlington: Dutr Down Memory Lane 2. Jenni Johnson & The Jun-keteers, \$20 pes person, Visit www.flynnix.org or call 86-FLNN.

NOVEMBER 3, 18: CATAMOUNT NOVEMBER 3, HE CATAMOUNT TRAIL ASSOCIATION 2007 FALL TRAIL WORK DAY: Thin brush and remove blow downs along the Catamount Ski Trail from Landgrove to Weston. For meet-ing time and place, call Lenore Budd at 364-5794 or email lbudd@catamounttrail.org.

NOVEMBER 4: VERMONTWINDS CONCERT: 7:30-9 p.m. Music Building-Recital Hall, UVM. For more information, contact Vikki Day at 656-7776 or vikkt.day@uvm.edu.

NOVEMBER 4: CONCERT: 4 p.m. NOVEMBER 4: CONCERT: 4 p.m. McCarthy Arts Center, Saint Michael's College, Colchester. Tin Honor of Gyorgy Ligeti, Students, and the 20th Century.\* Presented by Saint Michael's College Hu-manifies Program Concert Series.

NOVEMBER 6: CHAMPLAIN VAL LEY QUILTER'S GUILD MONTHLY MEETING: 6:30 p.m. social, 7 p.m. meeting, Essex Alli-ance Church, New members and ts are welcome. Contact 872

See CALENDAR p.25





73 Thompson St. 864-6516 Services: Thursdays-7pm, Sundays-10am

RUBLINGTON INTERNATIONAL ABBOOKT
PART 150 NOISE COMPATIBLETY PROGRAM UPWAYS STORY
NOVEMBER 7, 2007, 7-2007—9-00098, HAMILTON ROOM,
LEVEL, BURLINGTON INTERNATIONAL ABBOOKT TERSURAL BUILDING 1200 ADPORT DRIVE, SOUTH BURLINGTON

heer Americ DRIVE, SOCIL BRILDSCRW
Burlington International Airport has initiated a study to update.
"Noise Compatibility Program." The primary purpose of the study is update a samidar expansion of the current slightlity area for softwarely injustifies of permanent residence to (1) better older (neighborhous dusharise, (2) respond to interest expressed by some break residence solid the current eligibility area, and (1) establish deer, objective sees for determining the appropriate order in which to undertakener acquisitions.

bases for determining the appropriate order in which to undertake future acquisitions.

All interact parties are invited to attend. These is no select according to the context of the con

dy process

Please address any comments or inquires regarding any aspect
of this study to the attention of:

Part 150 Update, Burlington International Airport,
1200 Airport Drive, Suite 1, South Burlington, VT 05403.

Email: rmcewing@bty.aero.



### **B.1.2** Notices and Distribution



### NOTICE OF PUBLIC WORKSHOP

# Burlington International Airport Part 150 Noise Compatibility Program Update Study

November 7, 2007, 7:00pm- 9:00pm, Hamilton Room, Second Level, Burlington International Airport Terminal Building, 1200 Airport Drive, South Burlington

Burlington International Airport has initiated a study to update its "Noise Compatibility Program." The primary purpose of the study is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond to interest expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions.

All interested parties are invited to attend. There is no set presentation time. Airport representatives will be available to brief attendees and answer questions. If you plan to attend the workshop, please call 802-863-2874 during normal business hours and advise of your attendance so we insure adequate accommodations. There will

be a second workshop and public hearing when the study is complete and the draft documentation is available for public review.

Forms will be provided for submitting written input at the workshop. You also may submit written comments at any point in the study process. Please address any comments or inquires regarding any aspect of this study to the attention of: Part 150 Update, Burlington International Airport, 1200 Airport Drive, Suite 1, South Burlington, VT 05403. Phone: (802) 863-2874. Email: <a href="mailto:rmcewing@btv.aero">rmcewing@btv.aero</a>.

### "Robert McEwing" <rmcewing@btv.aero>

10/09/2007 02:03 PM

To: <oneflightup@adelphia.net>, <jcondos@aol.com>, "George Bacigalupo" <gbacigalupo@avports.com>, "Curt Hennigar"

<CAHServicesInc@bellsouth.net>, "Bob Kiss"

<BKiss.GWPost.GWDomain@ci,Burlington.vt.us>, "Christie Velau"

<cvelau@comair.com>, <Dodgerchris@comcast.net>, "Andrea Brooks"

<Andrea.R.Brooks@erac.com>, "Bob Cone"

<bob.cone@expressjet.com>, "Richard Doucette"

<Richard.Doucette@FAA.GOV>, "Susan Haigh"

<susan.l.haigh@FAA.GOV>, "Larry Abrams"
<Larry A@flyheritage.com>, "Steve DeSarno" <Desarno@gmail.com>,

"Mike Dunn" <mvdunn@hertz.com>, "Ann Beland"

<Ann.Beland@jetblue.com>, "Nick Santos"

<Nick@NorthRampAviation.com>, <jctrzepacz@onioncity.com>,

<jhandverger@onioncity.com>, "Bill Burdet" <Bill.Burdet@pwc.ca>,

"chuck hafter" <chafter@sburl.com>, "Juli Beth Hinds"

<jhoover@sburl.com>, <kevin.dorn@state.vt.us>. "Rich Turner"

<Rich.turner@state.vt.us>, "Duane Perry" <Duane.perry@ual.com>,

"Julie Taylor" <julie e. taylor@usairways.com>. "Dan Power"

<Dpowerbudget@verizon.net>, "Frank Cioffi" <frank@vermont.org>,

"Tim Shea" <tim@vermont.org>, <robert.gingras@vt.ngb.army.mil>,

<bradley.jensen@vtburl.ane.af.mil>,

<phillip.murdock@vtburl.anc.af.mil>, "Adam Rice"

<adam.rice@vtburl.ang.af.mil>, <mcguirer@willistontown.com>

"Michael Flaherty" <iritfuller@aol.com>, "Andrew Jones" CC:

<ajones.GWPost.GWDomain@btv.aero>, "Alex Planas"

<APlanas.GWPost.GWDomain@btv.aero>, "Brian Searles"

<BSearles@btv.aero>, "Doug Wood"

<DWood.GWPost.GWDomain@btv.aero>. "Heather Kendrew"

<HKendrew@btv.aero>. "Joel Morales"

<jmorales.GWPost.GWDomain@btv.aero>, "Kelly Colling"

<KColling.GWPost.GWDomain@btv.aero>, "Kerri Fadden"

<kfadden.GWPost.GWDomain@btv.aero>, "Patrick Sharrow"

<psharrow.GWPost.GWDomain@btv.aero>, "Rick Varney"

<RVarney@btv.aero>, "Tamara Gagne" <TGagne@btv.aero>,

<GTParis@campbell-paris.com>, "Eugene Richards"

<generichards@generichards3.com>, "Miro Weinberger"

<mira@hartlandgroup.biz>, "Mary Sprayregen"
<Mary.Sprayregen@mail.house.gov>, "Robert Miller" <bmiller@rem-development.com>
Subject: Public Workshop-Noise Compatibility Program Update

The Airport is conducting an update of its Noise Compatibility Program (NCP). A letter to Stakeholders along with a project summary is included for your information. Also attached is a notice of the first public workshop on the NCP to discuss the program and to obtain input. This first public workshop is scheduled for Wednesday, November 7 at 7:00pm in the Hamilton Room and Conference Rooms 1 and 2 (if needed) at the Airport. As an important member of the Airport community and team, you are invited to attend and participate in the workshop.

Please let me know if you will be attending.

Thanks

Robert McEwing
Director, Planing & Development
Burlington International Airport
1200 Airport Drive #1
So. Burlington, VT 05403
802-863-2874
802-863-7947 (fax)

Note: The project summary mentioned above can be found starting on page B-16 of this appendix.

### B.1.3 November 7, 2007 Workshop

Sign-In Sheets:

# Part 150 Noise Compatibility Program Workshop November 7, 2007 7:00 to 9:00 pm.

Please sign in below:

Name:	Address:
1. BOB BULLIER	26 SIRPORT PKY
2. Eileen Bourier	10 4 4
3. Theresa AshTon	1195 AIRPORT DRIVE
4. Michael Ashlon	u n
5. Garl Kirby	4 PATRICK ST
6. LUCIEN PROVENCE	HER - 14 MARYLAND WIT
7. James Kirki	12 Acard Chale
8. Lyn Kirk	12 Praval Civile
9. Louis + Bob Dorse	ing 1089 Arport Dy
10. 500y DAV:5	10 picard circle
11. GARY DICA	10 picarde irele.
12. Mike Michaelo H	enry 4 Reard Circle
13. Das Dufamien	- Delawar II.
14. Yorma Corron	360 White St
15. Wandall Corro	ne 360 White of
16. Sandra Pierce	72 Dymost ave
17. M. h. n #	
18. JAMES BOWNA	104 Aupont DKWI
19. WAYNE BENEZIEY D	Delive in Macylana ST

Name:	Address:
20. Charles Thibas	alt 6 Picard Cor
21. Claudette The	bault " " "
22. Bill & Mike	Ludy 61 Dumont auc
23. Kristy + Marc	Delobertio 1185 Airport DR.
24. autumn Ver	regie 31 Dumout Aue
25. Donna Bailey	31 Dumont Ave
26. JAY ZAETZ	30 MT. VIEW BLUD. SO BURG
27. Charl Phillips	7 Margland Street
28. DON DALTON	1383 AIRPORT OR.
29. Dona Shelly Qu	renneville 364 White St
30. General Proul	x 1155 Airport Pri
31. Susan LAMAS	8 Picard Circle
32. THOMAS STICH	1261 AIRPORT DRIVE
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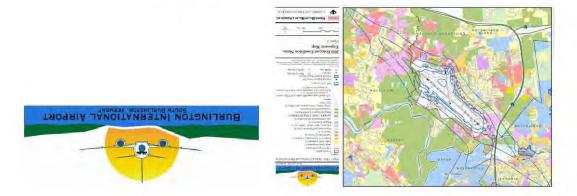
Name:	Address:
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43. Marleng	hely 30 Mt View Blup So. Bur
44. MARK 181	yram 43 Dural SI
45. Rochel F	ethol 57 DUMON
46. David	Methol 57 DUHON
47. Katten	Zo millham CT.
48. Side &	Lees 9 Chriton St.
49. Anne Monte	39 Ourals F. S.B.
50. 12. 16 s	15 Englis Dr. Ptw
51. Aure Varie	15 Eagle Dr PHW
52. Becky Pochto	of 25 Junant the 5 Burl.
53. Dear CORI	an 69 DUMONT AV. SOM
54. Jack Da	ling 397 White St.
55. Doma /	wille 11 s. Henry ct
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### Handout - Comment Sheet:

ne: e: wish to comment or inquire about the	following aspects of this project:
ne:	following aspects of this project:
e:	following aspects of this project:
wish to comment or inquire about the	following aspects of this project:
	-

Comments are welcome throughout the NCP process. Comments received by December 7, 2007 will be incorporated into the draft document.

### Part 150 Noise Compatibility Program Update November 7, 2007 Public Workshop To mail your comments, please fold this form in half and close with tape before mailing



Place Stamp Here

Burlington International Airport Attn: Part 150 Update 1200 Airport Drive Suite 1 South Burlington, VT 05403

### Handout – Summary:



# Burlington International Airport (BTV) Part 150 Noise Compatibility Program (NCP) Update Study SUMMARY OF STUDY BACKGROUND, SCOPE, AND SCHEDULE September 2007

Burlington Vermont actively pursues noise abatement and mitigation objectives at Burlington International Airport (BTV) under a Federal Aviation Regulation called "Part 150, Airport Noise Compatibility Planning." The City recently initiated a study to update the airport's Part 150 "Noise Compatibility Program." One of the first steps in the study is an open public workshop, scheduled for November 7, 2007, at [location?], from # pm to # pm. The purpose of the workshop is to provide all potentially interested parties with an opportunity to understand the study purpose and process, and to provide input for the City to consider as it proceeds.

This document provides background information on Part 150 and prior Part 150 activities at BTV, and summarizes the current study's purpose, scope, schedule, and further opportunity for public input.

### Part 150 Overview and Prior Actions at BTV

Part 150<sup>1</sup> sets forth standards for airport operators to use in documenting noise exposure in the airport environs and establishing programs to minimize noise-related land use incompatibilities. A formal submission to the Federal Aviation Administration (FAA) under Part 150 includes documentation for two principal elements: (1) Noise Exposure Maps (NEMs) and (2) a Noise Compatibility Program (NCP).

The City has under taken three prior Part 150 study processes at BTV:

- The City completed its first Part 150 study for BTV in 1989.<sup>2</sup> The FAA found the NEM (with noise documentation for 1988 and 1993) in compliance in March 1990, and provided a Record of Approval (ROA) for the NCP in July 1990.
- In May 1997, the City submitted an updated NEM to the FAA, with contours for 1997 and 2002. The FAA found the NEM update in compliance with Part 150 in June 1997.
- In August 2006, the City submitted a second NEM update to the FAA, with noise contours for 2006 and 2011. The FAA found the NEM in compliance with Part 150 on November 6, 2006.

These documents are available for public review at BTV administrative offices in the terminal building.

### NCP Update Purpose

It should be noted that Part 150 is a purely voluntary program — no airport is obligated to conduct a Part 150 study or to pursue noise compatibility through it. However, as the preceding summary indicates, Burlington has actively participated in the program over the prior two decades, and has found its participation to be highly beneficial for the City, the airport, airport users, and surrounding residents.

<sup>&</sup>lt;sup>1</sup> Part 150 is published under Title 14 of the Code of Federal Regulations as "14 CFR Part 150."

EAR Part 150 Noise Compatibility Planning Study, Volume 1: Noise Exposure Map, "June 1988, and "Volume 2: Noise Compatibility Program," November 1989, prepared by Reynolds, Smith and Hills, and Harris Miller Miller & Hanson Inc.

<sup>3 &</sup>quot;FAR Part 150 Noise Exposure Map Update," prepared by Hoyle, Tanner & Associates, Inc., May 1997.

 $<sup>^4</sup>$  "14 CFR Part 150 Update, 2006 and 2011 Noise Exposure Maps, prepared by Harris Miller Miller & Hanson Inc., in association with Campbell & Paris Engineers P.C., August 2007

Burlington International Airport Part 150 Noise Compatibility Program Update Study SUMMARY OF STUDY BACKGROUND, SCOPE, AND SCHEDULE September 2007

A primary purpose of the August 2006 NEM update was to provide updated noise contours to use in continued implementation of the FAA-approved NCP element to acquire mobile homes within the 65 decibel (dB) Day-Night Average Sound Level (DNL) contour and "permanent" residences within the 70 dB contour. 9BTV staff and consultants will provide descriptions of these noise terms and figures showing the areas encompassed by the most recently prepared noise contours at the public workshop.)

An additional outcome of the NEM update was a recommendation that the City initiate an NCP update to consider expansion of the eligibility boundary for voluntary acquisition of permanent residences out to 65 dB DNL, to: (1) assist in "humanizing" the program to better reflect neighborhood boundaries, (2) respond to interest to participate expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions. The FAA concurred with the recommendation and provided the City with a grant to conduct the NCP update. Pursuit of this recommendation is the primary purpose of this current study effort.

### NCP Update Scope and Schedule

The following table identifies major study milestones. BTV staff and consultants will be available at the workshop to describe these steps in detail.

Task	Anticipated Schedule
1. Confirm adequacy of 2006 / 2011 contours	September, 2007
2. Conduct initial analysis of revised land acquisition measure	October, 2007
3. Conduct initial public consultation	November, 2007
4. Complete analyses and prepare draft NCP documentation	December, 2007
5. Conduct 2 <sup>nd</sup> round consultation and hearing	February, 2008
6. Prepare final NCP submission	April, 2008
7. Initiate formal 180-Day FAA Review	May, 2008

Note that there will be a second round of public consultation when the technical analysis and draft study documentation are complete. The draft documentation will be made available for review at multiple publicly accessible locations in communities around BTV prior to the second public workshop.

A portion of the second public workshop will be a formal public hearing, to provide interested parties the opportunity to officially comment on the study process and recommendations. Opportunity also will be provided for interested parties to submit written comments prior to finalization of the NCP documentation. This opportunity will be advertised in local newspapers. All written comments received at the public hearing and during the comment period will be included and addressed in the NCP submission to the FAA.

### **Additional Information**

To obtain additional information about the NCP update, the upcoming pubic workshop, or related matters, please contact Robert McEwing, Director of Planning & Development, Burlington International Airport, at 802-863-2874. Email: rmcewing@bty.aero.

### Handout – Aircraft Noise Description

### How do we Describe Aircraft Noise?

We use a number of terms to describe aircraft noise. These metrics form the basis for the majority of noise analyses conducted at most airports in the U.S.

### The Decibel, dB

All sounds come from a source — a musical instrument, a voice speaking, an airplane. The energy that produces these sounds is transmitted through the air in waves, or sound pressures, which impinge on the ear, creating the sound we hear.

The decibel is a ratio that compares the sound pressure of the sound source of interest (e.g., the aircraft over flight) to a reference pressure (the quietest sound we can hear). Because the range of sound pressures is very large, we use logarithms to simplify the expression to a smaller range, and express the resulting value in decibels (dB). Two useful rules of thumb to remember when comparing individual noise sources are: (1) most of us perceive a six to ten dB increase to be about a doubling of loudness, and (2) changes of less than about three dB are not easily detected outside of a laboratory.

### The A-Weighted Decibel, dB(A)

Frequency, or "pitch", is an important characteristic of sound. When analyzing noise, we are interested in how much is low-, middle-, and high-frequency noise. This breakdown is important for two reasons. First, our ears are better equipped to hear mid- and high-frequencies; thus, we find mid- and high-frequency noise more annoying. Second, engineering solutions to noise problems are different for different frequency ranges. The "A" filter approximates the sensitivity of our ear and helps us to assess the relative loudness of various sounds.

### Maximum A-weighted Sound Level, Lmax

A-weighted sound levels vary with time. For example, the sound increases as an aircraft approaches, then falls and blends into the background as the aircraft recedes into the distance. Figure I illustrates this phenomenon. We often describe a particular noise "event" by its maximum sound level (Lmax). Figure 2 shows typical Lmax values for some common noise sources. In fact, two events with identical Lmax may produce very different total exposures. One may be of very short duration, while the other may be much longer.

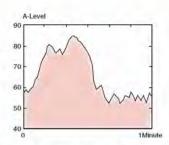


Figure I. A-weighted Sound Levels Over Time

### Sound Exposure Level, SEL

The most common measure of cumulative noise exposure for a single aircraft flyover is the Sound Exposure Level (SEL). Mathematically, it is the sum of the sound energy over the duration of a noise event — one can think of it as an equivalent noise event with a one-second duration. Figure 3 shows that portion of the sound energy included in this event. Because the SEL is normalized to one second, it will almost always be larger in magnitude than the Lmax for the event. In fact, for most aircraft events, the SEL is about 7 to 12 dB higher than the Lmax. Also, the fact that it is cumulative measure means that a higher SEL can result from either a louder or longer event, or some combination.

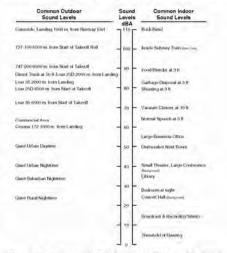


Figure 2. Common Environmental Sound Levels

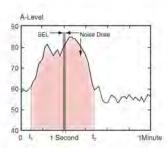


Figure 3. Sound Exposure Level

SEL provides a comprehensive way to describe noise events for use in modeling and comparing noise environments. Computer noise models base their computations on SEL values.

### Day-Night Average Sound Level, DNL

The Day-Night Average Sound Level (DNL) represents noise as it occurs over a 24-hour period, with the assumption noise events occurring at night (10 p.m. to 7 a.m.) are 10 dB louder than they really are. This 10 dB penalty is applied to account for greater sensitivity to nighttime noise, and the fact that events at night are often perceived to be more intrusive because night-time ambient noise is less than daytime ambient noise.

Figure 4 depicts a hypothetical dally noise dose. The top frame repeats the one-minute noise exposure that was shown in Figure 1. The center frame includes this one-minute interval within a full hour; now the shaded area represents the noise during that hour with 16 noise events, each producing an SEL. Finally, the bottom frame includes the one-hour interval within a full 24 hours. Here the shaded area represents the listener's noise dose over a full day.

DNL normally can be measured with standard monitoring equipment or predicted with computer models.

Most aircraft noise studies utilize computer-generated estimates of DNL, determined by accounting for all of the SELs from individual events which comprise the total noise dose at a given location on the ground.

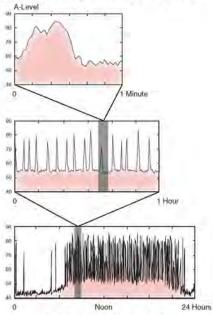


Figure 4. Daily Noise Dose

Computed values of DNL are often depicted as noise contours reflecting lines of equal exposure around an airport (much as topographic maps indicate contours of equal elevation). DNL contours usually reflect annual average operating conditions, taking into account the average number of flights each day, how often each runway is used throughout the year, and where over the surrounding communities the aircraft normally fly.



### HARRIS MILLER MILLER & HANSON INC.

Consultants in Noise and Vibration Control www.hmmh.com

Boards:

www.hmmh.com

# Welcome to the Burlington International Airport Part 150 Noise Compatibility Program Update Study Public Workshop



November 7, 2007

### What is Part 150? How has it been pursued locally?



- Voluntary federal "Airport Noise Compatibility Planning" program
  - Provides airports with technical and procedural guidance
  - · Determines eligibility for federal noise abatement funds
- . Submission to FAA includes two technical elements:
  - Noise Exposure Map (NEM) identifies incompatible land uses for base and forecast years
  - Noise Compatibility Program (NCP) identifies actions airport proposes to address and prevent incompatible land uses
- Prior Part 150 activity at Burlington International Airport included:
  - FAA accepted NEM for 1998 and 1993 conditions in March 1990
  - FAA approved NCP in July 1990
  - FAA accepted NEM update (for 1997 and 2002) in June 1997
  - FAA accepted NEM update (for 2006 and 2011) in October 2006

### Proposed Revision to Current Noise Compatibility Program

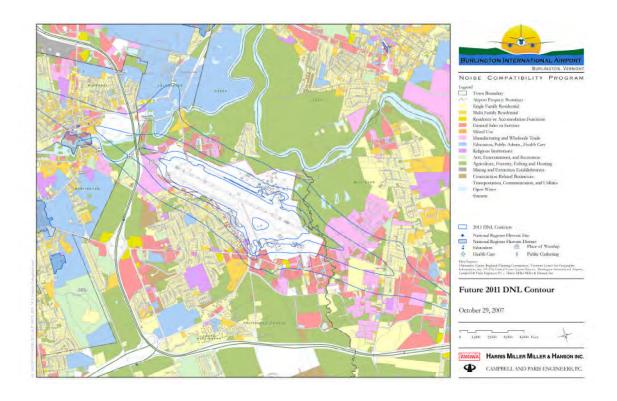


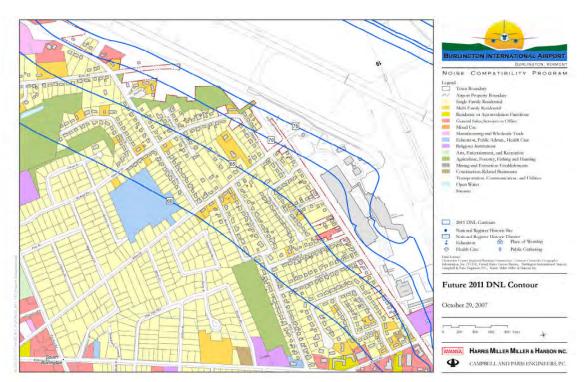
- Approved NCP includes voluntary land acquisition program that uses federal grants to acquire:
  - · Mobile homes within the 65 dB DNL contour
  - · Permanent residences within the 70 dB DNL contour
- The primary purpose of this NCP update is to consider expanding eligibility for voluntary acquisition of permanent residences out to 65 dB DNL, to:
  - Assist in "humanizing" the program to better reflect neighborhood boundaries
  - Respond to interest to participate expressed by some local residents outside the current eligibility area, and
  - Establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions
- Program participation will continue to be entirely voluntary

### **Anticipated Project Schedule**

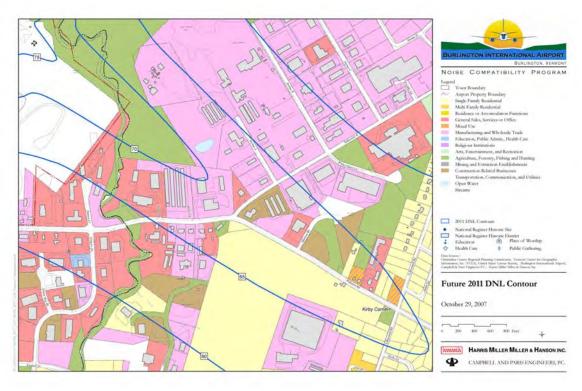


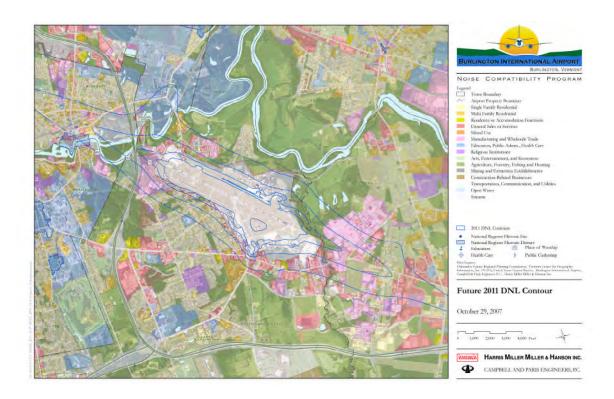
Milestone	Anticipated Schedule
1. Confirm adequacy of 2006 / 2011 contours	September 2007
2. Conduct initial analysis of revised land acquisition measure	October 2007
3. Conduct initial public consultation (tonight's meeting)	November 2007
4. Complete analyses and prepare draft NCP documentation	December 2007
5. Conduct second round consultation and public hearing	February 2008
6. Prepare final NCP submission	April 2008
7. Initiate formal 180-day FAA review	May 2008



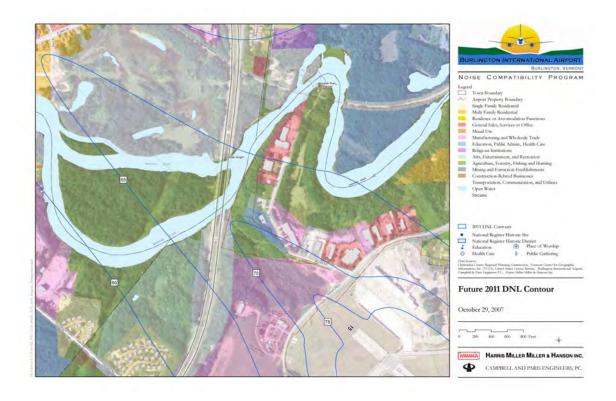


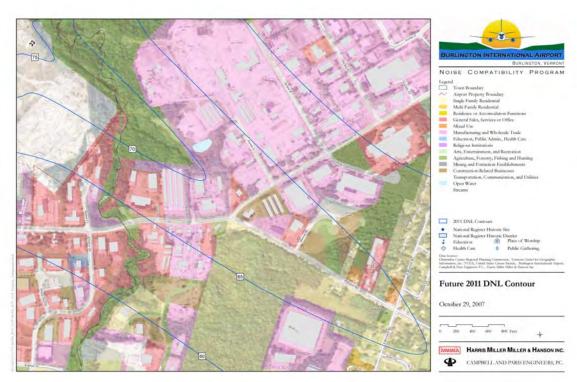












#### **B.1.4** Written Comments Received During Initial Public Consultation

Comment 1 - 11/7/07

	Burlington International Airport Part 150 Noise Compatibility
0.0	Program Update Study
BURLINGTON INTERNATIONAL AIRPORT	November 7, 2007 Public Workshop
Name: PAUD DESLAY	CHECK!
Address: 1 Dy LAWARY S	VI.
Phone:	<u></u>
Date: 11/7/07	_
I/we wish to comment or inquire about the	following aspects of this project:
NoTiFy in write	ing all RESINANTS
within 1-2 mile	Bounding The DINGOR
PIRIMETER	
	,
	-

Comment 2 - 11/7/07



Burlington International Airport Part 150 Noise Compatibility Program Update Study November 7, 2007 Public Workshop

Name: Address:	GAIL KIRBY 4 PATRICK ST
Phone: Date:	11/7/07
	o comment or inquire about the following aspects of this project:
It u	ould help greatly if night-time
engin	es at 19m for an hour is
who	work need to sleep at night!
Can	the maintenance
area.	to more away from
unpo	71 Duce acci.
I'm	interected!

Comment 3 - 11/7/07

BURLINGTON INTERNATIONAL AIRPORT	Burlington International Airport Part 150 Noise Compatibility Program Update Study November 7, 2007 Public Workshop
Name: Address: 1069 Hillings V	1
Date: ////////////////////////////////////	ne following aspects of this project:
Cedar "stroks"	existery & your
Alound cementa	of Mekal to
Be May & E	Uln "Some" USO red laddressed
to mu the a	Diston Hast of
fre proflemo	5 / 0

Comment 4 - 11/7/07

Name:



Burlington International Airport Part 150 Noise Compatibility Program Update Study November 7, 2007 Public Workshop

Phone: 802 349 972)  Date: 11-7-07	
I/we wish to comment or inquire about the following aspects of this project:	
As houses are razed, please dec	el
with sound barrier issues. Trees, et	c.
are important but do not block no	ise
On Dumont, Several houses are dear	~
and so the noise levels are higher.	
Im interested in learning more about aquisition.	D
Also- if you rate the houses across the street, are we in the 70 zone??	

#### Comment 5 - 11/9/07

---- Message from Thomas Paul Stich@KeyBank.com on Fri, 9 Nov 2007 15:28:59 +0000 ----

To: rmcewing@btv.aero

Subject: 11/7 Workshop - Comments/Request

Dear Mr. McEwing.

I would like to thank you (and appropriate parties) for the invitation to the workshop. After the initial 'gripe-session', I found the information provided useful, and I appreciated your candor.

#### COMMENTS

The session clearly had intent, based upon the mailings sent to local residents, to focus strictly on aircraft noise. The fact that you addressed concerns not directly related to aircraft noise, seemed to defuse from tension amongst the folks attending, and I thought it prudent to suggest to you to take these out-of-scope concerns into consideration while planning future buy-outs.

Specifically regarding item number 3 under the heading "NCP Update Purpose", the thought process of using the dBA contour lines as a guide for acquisitions certainly is not a bad starting point, but one should add such items as geographic distance from airport boundaries, secondary noise issues, and overflow parking concerns when evaluating the acquisition process. You may recall my concern related to the use of 'panic-buttons' on rental car key sets to find vehicles at the 2nd floor NW corner of the parking structure. Seeking to be objective, I understand the point of view of the Kirby and Picard residents in reference to their over flow parking dilemma as well.

Lastly, the overview you personally provided of the buy-out process seemed objective, comprehensive, and fair. It may be prudent to provide such details available in writing at future workshops.

#### REQUEST

I would ask that you please place our property on the list of volunteers for the acquisition process. We were satisfied with our site and situation prior to the expansion of the parking structure, and although less so thereafter, content with the structure itself. The pitfalls that came with the structure, however, have placed us in the position now of 'wanting out'. Should you require our request to be in a more formal correspondence, be advise and we will address as you see fit to advise.

Very truly yours, Tom Stich 1261 Airport Drive South Burlington, VT 05403 phone (daytime): 660-4270

#### Comment 5 continued

*****************
********
This communication may contain privileged and/or confidential information. It
is intended solely for the use of the addressee. If you are not the intended
recipient, you are strictly prohibited from disclosing, copying, distributing
or using any of this information. If you received this communication in error,
please contact the sender immediately and destroy the material in its entirety,
whether electronic or hard copy. This communication may contain nonpublic personal
information about consumers subject to the restrictions of the
Gramm-Leach-Bliley Act. You may not directly or indirectly reuse or redisclose
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127 Public Square, Cleveland, OH 44114
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If you profess not to progritus future a mail offens for
If you prefer not to receive future e-mail offers for

Key send an e-mail to DNERequests@key.com with 'No

SUBJECT line.

products or services from

Promotional E-mails' in the

Comment 6 – 11/19/07

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INFO: JOE Cardells	
FA: BR MEEWING	NOV 1 9 2007
781-227-793 9 2115P	Burlington International Airport Part 150 Noise Compatibility Program Update Study November 7, 2007 Public Workshop
Name: Address: Duval St.  S. Qurlington  Phone: Date: 11-16-07	<u></u>
1/we wish to comment or inquire ab	out the following aspects of this project:  to See adequate
properties ar	
or manmade	11-11
à and consider as thetic fac	tor.
* Would like to along w/ BTV,	see Military involvement to reduce noise as
- much as possib	nity and people that
actually do IN	inity and people that is near by.
would hopefully	not into empty lots

yet to see I person intrested

Comment 7 - 11/20/07

INFO! JOE COUNCILO Fr: Bob McEwing

NOV 2 0 2007



781-229-7939

**Burlington International Airport** Part 150 Noise Compatibility **Program Update Study** November 7, 2007 Public Workshop

Name: Chantelle, July DAVIS

Address: 10 PICARD CIECLE

So. Burlington Vermont 05+03

Phone: 802 86 27544 Date:

11/15/07

I/we wish to comment or inquire about the following aspects of this project:

10 PICARO CIRCLE FOZ 4 ZICARO NOW to endure the denfoning airplane noise. nishtman her grant parents house Our oldest dauchter is 9 + cries So you ran just imagine tries to plane engines + W/r Mention three Children? Yes our 8 year old how suffers from chronic adhma + needs inholers + medication divily. Air Quality is the culprit we fear because she has never been around disparettes. Note of one family smokes and after testing we found that she has no allergies to Foods pets ect. Jet fuel is ever present around our home being so alose to the runway here are no homes left on our side. They have been torn during like the homes in back also! We are close enough to were to the pilots! home on the market a months ago i we

Comment 8 – 11/13/07

TATO : The Cardello FX: BEMENING NOVI : 2007
181-229-7939 NOVI : 2007



Burlington International Airport Part 150 Noise Compatibility Program Update Study November 7, 2007 Public Workshop

Name: George Chaffee
Address: 317 Meadowrun Ro

(Dillister VI

Phone: 878-1241

Date: 11-9-07

I/we wish to comment or inquire about the following aspects of this project:

Your studies affect to apply formulae that

average sound over time in order to create

65 dB- 150 decibel rings around BTV.

Where I live under base to final for 33,

the F-16s surely exceed 65dB for brief

periods and that is the problems: Humans

dant average pain — it is those shocking

penetrations that cause the discourfort.

Windows and dishes rattle and I cannot

refocus my attention until the prectice with

approaches and threttle settings is over

and then the next group returns an

hair or two Later. This airport sits in the

uiddle of Vermont's Lawrest residential

area, Quality of Life, a vaunted VI attribute

15 seriously degraded by this military activity.

#### B.2 Material Related to the Public Hearing and the March 25, 2008 Workshop

#### Public Workshop, Hearing and Comment Period Announcement

The Burlington Free Press – March 3, 2008

4C www.burlingtonfreepress.com

••• The Burlington Free Press Monday, March 3, 2008

#### BULLETIN BOARD

- **Absolutely Free**
- Garage Sales
- Lost & Found

#### Absolutely Free

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BALDWIN ORGAN Take away FREE! Call (802) 999-1606. leave message.

#### BONDED PAIR COOL

looking for good home in the country. Great mousers. Sisters, one black, one grey. (802) 878-5169. E-mail tlathestarlady@yahoo.com.

#### BRITTISH SHORTHAIR n male 1,5 yrs, blue. Call (502) 326-4896.

CAT Calico/lemale/8yo/ne call (802) 899-1254.

CATS-2, Friendly 8 year olds, vaccinated. To good home only Must go soon. Jeff (802) 373-8826

#### **ADVERTISING GUIDELINES**

Please check your advertisement the first day It runs. We wish to correct any error before the second insertion as we will not be responsible for any adjustments in charges beyond the first appearance of the ed. Any credits for errors will be determined according to the impact the error had on the

standards of accuracy and good faste, we reserve the right to refuse, cancel or edit advertising at any time.

Burlington Free Press

e Compatibility Program: for Builington Interna-tional Airport. The draft document is evallable for public review at the fol-lowing three locations:

Burlington International

Airport 1200 Airport Drive, Suite J

South Burlington, Vermont

Monday - Friday, from 8:00 am to 4:30 pm.

South Burlington

Plunning Office 575 Dorset Street

South Burlington. Vermont Monday - Friday, from 8:00 am to 4:30 pm.

Chittenden County

#### **Absolutely Free**

#### Near new/new in box 15', (602) 864-8241.

HIMALAYAN MALE Flams pt, extreme faced, 3 yrs old. Large cat, 15 lbs. Neutered and UTD on shots.
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with no other cats.
Adoption fee: \$75. Pixs: www.lovemycs-ts.net (802)891-1218, sg0668@yahao.com.

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LAW BOOKS, Numerous vols. All picked up by 2/28 a.m. latest. (802) 656-3337

#### PIANO McPhail Upor McPhail Upright, Call for details, Call (802) 453-4421

43" TOSHIBA T.V Needs work. You take away Heavy Georgine at (802) 860-2976.

#### Legal Notices

Invitation to Qualify

#### Legal Notices Legal Notices

# and Bid By Chittenden County Transportation Authority (CCTA) For construction of a paint spray booth in their

paint spray booth in their ous storage facility, in order for bids to be con-sidered for this project, films must meet the qualification criteria, Qualification information Qualification information is included in the Project Manual, Firms must sub-mit all qualification documents in a sedied envelope separate from sealed bids. The only bids ed bids. The only bids that will be opened are those of contractors who meet the qualification criteria, if you have any questions regarding these forms or the qualification process, please call Aaron Frank at 834-0629, ext.24. Project documents may be pick-ad up and signed out at 15 industrial Parkway, Burlington, VT 05401, available on 3/5/08. Project documents may be viewed at the Works in Progress plan room at 20 Farrell St., S, Burling-

NOTICE OF PUBLIC

Part 150 Noise Compati-bility Program Update Study March 25, 2008, 7:00 pm - 9:00 pm, Hamilton Room, Second Level, Burlington Interna-

tional Airport Terminal Building, 1200 Airport Drive, South Burlington, VT. The City of Burling-ton has completed the draft update to its "Nois-

Metropolitan Planning Organization 30 Kimball Avenue South Burlington, Vermont Call (802) 863-2874 with any questions about access to the material for review purposes. of the purposes. Of the refinery purposes. Of the whole Compatibility Program update is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond to interest expressed by some local residents sustained the current eligibility area, pnd (3) establish clear, objective bases for determining the socropic purpose. 20 Fairell St., S, Burling-ton, YT 05-03.2 A man-datory pire-Bild walk-tiru. Is scheduled at the site on Tresday, March. 11th at 10:00 AM. Bilds are clue Thursday, April. 3, 2008 at 2:00 p.m. See Project Manual for addi-tional requirements. No proposer will be discrimi-mated against because of age, sox, race, color, retitlion. and treatment of the pro-posed programment of the pro-retillion. In additional origin. religion, national origin, or disability.

clear, objective bases for determining the appropri-ate order in which to un-dertake future acquisi-tions, All interested par-ties are invited to attend. The purpose of the NOTICE OF PUBLIC
WORKSHOP and PUBLIC
HEARING
Builington international
Airport
Air No. Notice Council
Air Tournation on the study and its recommendationa through one-on-one conversations with airport representatives, if possible please call 802-863-2874 during normal business hours if you expect to attend the reeding, so the airport can ensure adequate space is provided for all attendees, All interested parties are

## **Legal Notices**

invited to provide com-ments. Forms will be provided at the work-shop for submitting writ-ten input, although writ-ten comments will be acten comments will be ac-cepted in any form. A court reporter will be at-the workshop to tran-scribe verbal comments for any attendees who prefer that method of previding input. The City will accept written com-ments until 4:00 pm Fri-day April 4, 2008. Please address com-ments or inquires regardments or inquires regarding any aspect of this study for Part 150 Update, Burlington International Aliport, 1200 Apport Drive, Suite 1, South Burlington, VT 05403. Comments received at the Public Hearing and duning the comment period will be included in the final submission to the Federal Avaistion Administration. Aviation Administration.

Please phone (802) 863-2874 or email rmce-wing@btv.aero with any questions about this pro-

### February 25 & March 3, 2008

Request for Proposal Agency of Human Services Office of Vermont Health Access

The State of Vermont

("State"), Agency of Hu-man Services (AHS), Of-fice of Vermont Health Access (OVHA), is issu-ing this Request for Pro-posals (RFP) to procure a ing this Request for Proposals (RFP) to procure a
Contractor to implement
and operate a Medicaid
Resch Up Transportation
System. The Contractor
is expected to provide
for, arrange, and tracilitate reimbursement of
transportation. For Vermont Medicaid eligible
persons; training/employment-related transportation for Vermont Reach
Up participants; and
emergency transports for
patients who have been
involuntarily committed
to a hospital for mental
health criss. A required
tetter of intenti must be
submitted by March
14th, 2008, 4:00 pm
EST and the proposal
submission deadline is
Apill 9, 2008, 4:00 pm
EST, Obtain a complete
copy of the RFP on OVAdministration creuses
Intip://ovha.vermont.gov. http://ovha.vermont.gov /administration/request s-for-proposals-issued-

#### Legal Notices

2008-1 or fax a request to Peter McNichol at 802-879-5919.

March & , 2008 State of Vermont District.

of Chittenden, SS Probate Court Docket No. 32312 IN RE THE ESTATE OF GEORGIANA G. MOSE-

BACH Late of Burlington, Vermont. ORDER AND NOTICE OF HEARING BY PUBLICA-TION

To All Interested Per-

WHEREAS, the following petition has been made to the Probate court for the District of Chitten-

den:
Petition to Open a Testate Estate and admit the Last Will and Testament of Georgiana G. Mosebach to probate and issue Letters Testamentary to Betty Lestage.

WHEREAS, the Court or MARCH 2008, et the Probate Office in Bullington, Vermont, at 10:30 a.m. to hear and decide upon said petition, and ordered that notice thereof be given by pub-ishing this notice for two weeks successively in the Burlington Free the Burlington Free Press, a newspaper circulating in Vermont. Service by publication to be complete at least 14 days prior to the day assigned for hearing:

THEREFORE, you are hereby notified to appear before said Court, at the time and place assigned, to make objections, if to make objections, if you have cause, This is the lirst action in this proceeding. If you wish to receive notice of future events in this matter you must formally enter your appearance with the Court.

Dated this 26th day of February 2008.

Name of Publication: Burlington Free Press First Publication Date: Second Publication Date: March 10, 2008 March 3, 2008

March 3&10, 2008

#### **Legal Notices**

SCHOOL DISTRICT ANNUAL MEETING March 10, 2008

The legal voters of the The legal votes of the Hinesburg Town School District are hereby noti-fied and warned to meet at the Hinesburg Com-munity School gymnasi-um on Monday, March 10, 2008, at 7:00 p.m. to act upon the following erticles:

ARTICLE I:To neer and act upon the reports of the Town School District Officers.

ARTICLE II: Shall the voters of the Hinesburg Town School District authorize the Board of School Directors to borrow money by issuance of bonds or notes not in excess of anticipated revenues for the next figcal year.

ARTICLE III:Shall the Town School District ap-prove the school budget of Seven Million, Seven Hundred Two Thousand Six Hundred Forty Dollars (\$7,702,640) for the fis cal year beginning July 1, 2008 through June 30, 2009, as recommended by the Board of School Directors?

ARTICLE IV: Shall the voters of the Hinesburg. Town School District authorize the Board of School Directors to apply One Hundred Forty Thousand Dollers (\$140,000) of the school district's current fund balance to its capital projects to be applied tow renovations to the Wing? State funds not be available at time these projects otherwise eligible to re-ceive state school con-struction aid. The Dis-trict is responsible for all costs inclured in connec-tion with any berrowing done in anticipation of state school construction aid.

ARTICLE Y: Shall the voters of the Hinesburg. Town School District authorize the Board of School Directors to apply One Hundred Thousand Dollars (\$100,000) of the school district's current functions. the school district's cur-rent fund balance as rev-enue for the 2008-2009 operating budget and ap-ply the remaining bal-sance as revenue for fu-ture budgets?

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A LOCAL CUSTOM 802-660-1880

#### The Burlington Free Press – Purchase Order for February 25 and March 3, 2008

South But 802-863-2 To Birlingles Free T. I gl College Graph of the gr	itional  ort Drive, #1 ington, VT 05403  Bra Date Feb  ST	Purchase Order No. 23215  The invoice must show the above purchase order number.  22,2008		Requisition Order No. 23215  This is NOT a Purchase Order, For in-house use only.
QUANTITY ITEM NO.	ITEM DESCRIPTION	PRICE/EA TOTAL	CODE;	1115 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 each	pegal Muse on 2/25 and 3/3 for USP Ditti mollishing		Industrial	Airfield Administration Other Buildings
(4)	Mary :	324.5° 649.0°	7,111	artment Date
			DBE Contacts M  Competitive Price	
Purchases are valid only when cover	and the a reachang carbo place of	ty the Director of Flances, Park	Grand Total just as	shuhug hijaha
Purchases are valid only when cover items originally placed on the order valid purchase order number to be purchase order, contact the Director	and priced as quoted will be pair accepted for payment. If there of Finance at once.	for. All invoices must show a	Requested by	Approved by thems of any

#### The Other Paper – February 25, 2008

The Other Paper, Thursday, FEBRUARY 28, 2008

Page 3

#### The Function of Free Speech....is to invite dispute.

#### Preserve Our Conservation Fund: Vote No on Article II on March 4th

On Manch 4\*, Vermont will hold its Presidential Primaries. In addition to voting for who should be on the Republican or the Democratic tickets for President in November, there will be two local Ballot Rems on the South Rudnington Ballot. Article II will ask if the Conservation Fund should be broadened, such that money collected under the Conservation Fund could be used to purchase properties for recreation

in 2000, South Burlington covered an area of 16.6 square miles. Voters in South Burlington passed a failibit them that dedicated one cent of every \$100 of valuation to their tax bill to a Conservation Fund. The thought was to use these funds to purchase land in South Burlington to be perpetually conserved. In the Southeastern part of the City, the 44-acre Scott Property was protected through the purchase of its development rights with money from the Conservation Fund. It is hoped that this property will become the connection of conservation land in that part of the City.

South Burlington increased from 14,879 in 2000 to 17,838 in 2007 (20% in 7 years). This populatic growth has led to increased demand for housing and services, resulting in less opportunity to conservation in South Burlington as the City builds out. The amount of land available for conservation represents a smaller and smaller proportion of our community every day, we are running out of options.

What does the future hold? In 2025, South Burlington will continue to measure 16.6 square iniles; this what aloos the future notic: In 2025, South Buttington will continue to measure the square muse; insi will not change. But our population will, and so will the total amount of fand that is developed. Forecasters predict that South Butlington will have a population of 25.707 by diggs. In increase of 59% from 2000). With this population growth, undeveloped pain of 25.1707 by diggs. In continue to be under great pressure to be developed. There are several scenarios that are possible for South Butlington, in terms of conservation land; the worst and best are presented here:

Scenario 1: Red Rocks, East-Woods, the Scott Property and a few pockets of conserved lands along Muddy Brook and elsewhere will be the only publicly accessible conservation lands in the City. The use by visitors will begin to have a dramatic effect on these properties as they suffer from overuse. These conservation lands will be totally surrounded by development and have little to offer visitors; any wildlife corridors that once might have existed will be lost. It's likely that residents will be to travel outside South Burlington to walk through a mature forcet, amble across an old farm field, or take in a

Scenario 2; fled Rocks, East Woods, the Scott Property and the Muddy Brook corridor are the core of a functioning network of public conservation lands it South Burlington. Thanks to the wisdom of the voters and the City administration in 2000 and 2008, South Burlington has a vibrant and functioning set of senservation lands for the public to enjoy. South Burlington took the cue from other great cities and set aside properties for the benefit of its residents and visitors (e.g.: Boston's Emerald Necklace, New York City's Central Park, and Montreal's Park Mont Royal are cornerstones of each of these great cities).

Conservation lands (also called natural areas) are vital to any community. They: 1) Offer refuge from hostic city streets and serve as outdoor classrooms for children and adults to learn about nature; 2) Provide upportunities for low impact recreation (hiking, cross-country sking, and snowshoeling; 3) Harbor native plants and animals and perform a wealth of ecological services, such as storing floodwater, producing coygen, and filtering stormwater run-off; and 4) Grant postcard viewe that we cherish so deeply.

In 2000, souers recognized that without a dedicated fund, undeveloped lands could be permanently lost. Once land is developed, it is hard to restore the natural system that was notice there.

However, on March 4th voters will be asked to rethink the Conservation Fund's origi-tial furnit—to maintain areas of open, natural space that will remain forever natural. Votores in 2000 will be asked to reject the linear and wisdom of the voters in 2000 by allowing the South Burlington Conservation Fund to be altered to Hinance the pur-chase of recreation fields. While recreation fields are important to a community like South Burlington, they do not provide any of the functions that natural lands do.

The choice is ours to make in 2008. We will decide how our City will look in 2025 by how we vote our March 48. The use of the Conservation Fund was established clearly by the voters of this City in 2009. Let's not alter the wise and forward-looking Ballot frem passed in 2009 and keep the Conservation Fund for the purchase of natural lands. We can surely find other resources in our City for the funding of recreation fields. Preserve our Conservation Fund: vote NO on Article II on March 48. After the votes have been counted, all sides should come together to work on a master plan to strategize how to fund and site our natural lands and recreation fields.

Peter W. Jones South Burlington Land Trust

#### Volunteers Needed for Reparative Justice **Board of South Burlington**

Submitted by Susan Deacon for the Reparative Justice Board

The Reparative fusitive Board of South Burlington—composed of community volunteers—neers weekly with law-level offenders and with victims who choose to be Involved. Offenders are sent to the Board by the court, or referred by the police:

The purpose of the floated is to repair damage to the community, and help an offender understand how their offense has impacted the victim. In damage, fear-injury, stress, etc.; the community, through use of community services, and, the offender and their family.

During the meeting with an oftender, a plan of action is developed, includi-letters of apology, community service work, and a life plan for the future. Boa members tee a sense of purpose in belging offenders learn to become, here citizens; and in holping victims to reduce lears, anger and hum through the pr

A community survey with he available at pulling places on voiling day. March 4 you may lift out a survey with your contact information, it you would like to be contacted: or participate. We look forward to your dece and commerces.

Contact Herb-Sinkinson at 802-651-1793 or herbs@doc.state.vt.ns.■

#### Vote NO on Article II

Lhave been living in South Burlington for 7 years now and been observed the first pace of development on large weaths of our open and. While I have become more concentred about the city's has at open space I have had some comfort in knowing that we are configurable for the product of the control of the co

However, now the City Council is proposing that the purpose of the Conservation Fund be amended to allow for the purpose of fine devoted to recreational use (WRICLE II on the March 4th ballow is very clear to me that "recreational use" and land conservation are two very different things and that the original totent of the Vorsa to superit the preservation of open space. It westen obvious that one fund cannot be all things for all purposes and that the pressures to buy land for recreation fields could easily consume the Conservation Fund. I do not believe that we should subvert the good intent behind the original approval of the electronate for the express purpose of "conserving" and "preserving" open land in the city

If South Burlington really needs more playing fields then a funding mechanism for that specific purpose should be proposed by the City Council and put to the voters of South Burlington, and not the clocked attempt to use Conservation Funds for a clearly alternate purpose. What the City Council means by "recreational use" is the purchase of land for the construction of playing fields (socker, fuse-ball, etc.) with all the attendant structures, parking areas, theringe, and fencing associated with such facilities which would, per force, there he natural flora, funna and topography of the land. and fencing associated with such facilities which would, alter the natural flora, fauna and topography of the land.

The open land inventory available for "conservation" in South Butfington is very limited. If the Conservation Fund is used for pur-poses other than conservation I lear there will be no Conservation Fund money available for actual conservation purchase.

I will vote NO on Article II and I urge all other South Burlington voters to do the same,

Respectfully submitted, Penne Tompkins South Burlington



#### NOTICE OF PUBLIC WORKSHOP AND PUBLIC HEARING

BURLINGTON INTERNATIONAL AIRFORT
PART 150 NGISE COMPUTIBILITY PROGRAM UPPATE SYMDY
MARCH 25, 2005, 5 2005-9, 5005-9, 1005-0, 1005-0, SECOND LEVEL.
BURLINGTON INTERNATIONAL AIRFORT FROMHAL BERLINGTO.
200 AIRFORD EMPK, SOLUTI BURLINGTON

The City of Burlington has completed the draft update to its "Noise Compatibility Program" for Burlington International Airport. The draft document is available for public review at the following three locations:

Burlington International Airport South Burlington Planning Office 575 Dorset Street South Burlington, Vermont Monday-Friday, from 8:00am to 4:30pm Monday-Friday, from 8:00am to 4:30pm

Chittenden County Metropolitan Planning Organization 30 Kimball Avenue South Burlington, Vermo

Call (802)863-2874 with any questions about access to the material for

The primary purpose of the Noise Compatibility Program update is to The primary purpose of the Noise Compatibility Program update is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond to interest expressed by some bear residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions. All interested parties are invited to attend.

The purpose of the Workshop and Public Hearing is to provide interested parties with an opportunity to obtain information on the study and its recommendations through one-on-me conversations with airport representatives. If possible, please call 802-863-2874 during normal business hours if you expect to attend the meeting, so the airport can ensure adequate space is provided for all

attend the meeting, so the airport can ensure adequate space is provided for all

All interested parties are invited to provide comments. Forms will be provided at the workshop for submitting written input, although written comments will be accepted in any form. A court reporter will be at the workshop to transcribe erbal comments for any attendees who prefer that method of providing input. The City will accept written comments until 4:00pm Friday April 4, 2008.

Please address any comments or inquiries regarding any aspect of this study to the attention of:

any supect of this study to the international Airport,
Part 150 Update, Burlington International Airport,
1200 Airport Drive, Suite 1, South Burlington, VT 05402.
Comments received at the Public Hearing and during the comment period with unduded in the final submission to the Federal Aviation Administration. Please (802)863-2874 or e-mail: trucewing@brv.aero with any questions about this p

The Other Paper – March 6, 2008

The Other Paper, Thursday, MARCH 6, 2008

# CITY CENTER

Page 3

#### City Councilman Stepping Down

By Colin Ryan, staff writer

When Dan O'Rourke comes to the end of his fourth term of ser-vice on the South Burlington City Council in May, 2008, he will not be running for re-election. O'Rourke was first elected to the council in May, 2000.

"I have thoroughly enjoyed my eight years on the council and the interactions I have had with residents and city staff," reflects O'Rourke. "With a young family and work commitments, however, I feel it is time to step away from the council."

Before O'Rourke worked with the council, he served for more than four years on the Planning Commission (now the Development Review Board.) Because of his long history with the city, he expects to be involved beyond this May.

"I do see myself remaining ac-tive in city affairs but I am un-sure ait this time in what capac-ity," he shares. "We have some very important issues facing the city, such as the new police sta-tion, the development of the city center, and the continued stress on our tax dollars."

it is in light of these and other issues that O'Rourke encourages any and all interested persons to run, this May, for his open two-

"I would encourage people who are passionate about the city to run for the council. We have very talented people working for our



Councilman Dan O'Rourke

city, and it has been a tremen-dously rewarding experience."

If you are interested in running for If you are interested in running for the open position on the South Burlington City Council, you will need to hand in a petition with 30-signatures from valid voters by April 14 at 5 p.m. You can contact City Clerk Donna kniville for more information at 348-4119, or kinvillee'sburl.com, as well as pickup the petition und consent forms from the City Clerk's office at 575 Dorset Street.

#### City Appraisal Process and the Value of Your Property

Submitted by Chuck Hafter, city manager, City of South Burlington

With spring just around the cor-ner it is the time of year when the South Burlington Assessor must ramp up efforts to com-plete, in a timely manner, the Grand List—assessed values of all property in the city—for the City of South Burlington. Each year, residents have the right to appeal their assessed value, but they must do so within the le-gal timeline set out in Vermont State Statutes. Most property owners do not receive a formal owners do not receive a formal notice of this appeal opportu-nity. The assessment and ap-peal process is explained below. Also summarized below is what the city of South Burlington wants to share with its resi-

 If you want to know your property's assessed value and the assessed value of other the assessed value of other properties in the City of South Burlington you can view paper copies of this information at City Hall in the Assessors' Of-fice or the City Clerk Office or in the SB Community Library, Or you may view it on line at www.sburl.com. (Use the 2007 Grand List "as-billed" value.)

2) If you have a question about June 16: Latest date at which

your assessed value you are encouraged to discuss it infor-mally with someone in the assessor's office before the end of March if at all possible

3) If you disagree with the as-sessment of your property you have a right to file a formal no-tice of appeal with the Asses-sors office. however this must be done before June 30, 2006. Taxpayers may informally dis-cuss their values at any time and file an appeal if still not satisfile an appeal if still not satis-fied.

The Grand List process is tech nical and legal and can be diffi-cult to understand. To provide residents with a better under-standing of the process and their responsibilities—should an individual wish to appeal a home value—below is a quick breakdown of the dates and times that relate to the lodging times that relate to the lodging the Grand List for 2008. These the Grand List for 2008. These dates are not the exact dates as stated in State Law but reflect the dates that the city is aiming for this year. All dates meet the legal requirements.

April 1: <u>Date of assessment</u>. Property that has changed in value is inspected and valued as of April I each year.

Abstract of the Grand List may includged with City Clerk. Ab-stract of the Grand List is a preliminary listing of the Grand

tuny 16: Latest date which Change of Appraisal notices may be sent to property own-ers. Change of Appraisal notices only get sent to owners of prop-erty that have a change in as-sessed value, for example, due to construction, remodeling or other improvements. If your other improvements. If your value hasn't changed you will not receive a Change of Ap-praisal notice, but you may still appeal your current value if you feel that the city's assessment

June 30: Latest date that any property owners can appeal their Grand List value for this year. Property owners who feel that the value set in the Grand List does not reflect the true List does not reflect the true equalized market value of their property on April I of this year, must file their request for an appeal in writing to the Asses-sors office. While the official start of hearings is set to some to the Assessors office prior to that start of hearings to review your property record information with the Assessors.

See GRAND LIST to 20

#### NOTICE OF PUBLIC WORKSHOP AND PUBLIC HEARING

Bublination Interparticulal Airvort
Part 150 Noise Companiblity Program Updati. Study
March 25, 2005. - 9006., Hamiltor Roda, Sécond Level,
Bublinator International, Abrupat Terbinat Bollopio.
100 Airvort Drive, South Bublination.

The City of Burlington has completed the draft update to its." ompatibility Program" for Burlington International Airport. The draft document is attack for public review at the following three locations:

Burlington International Airport

1200 Airport Drive, Suite 1

575 Dorset Street

Burlington International Airport
South Burlington International Airport
1200 Airport Drive, Suite 1
South Burlington, Vermont
Monday-Friday, from 8:00am to 4:30pm
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Chittenden County Metropolitan Planning Organization 30 Kimball Avenue South Burlington, Vermont

Call (802)863-2874 with any questions about access to the material for

The primary purpose of the Noise Compatibility Program update is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond interest expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions. All interested parties are invited to attend. The purpose of the Workshop and Public Hearing is to provide intereste parties with an opportunity to obtain information on the study and its

recommendations through one-on-one conversations with airport representatives. If possible, please call 802-863-2874 during normal business hours if you expect to attend the meeting, so the airport can ensure adequate space is provided for all

All interested parties are invited to provide comments. Forms will be provided at the workshop for submitting written input, allhough written comments will be accepted in any form. A court reporter will be at the workshop to transcribe verbal comments for any attendees who prefer that method of providing input. The City will accept written comments until 4:00pm Friday April 4, 2008.

Please address any comments or inquiries regarding any aspect of this study in the attention of:

Part 150 Update, Barlington International Arrant,
Comments reversed at the Public Hearing and during the comment period will unlikely in the final enhancement in the Federal Avenue.

1002/06-3-2874 or c-mail: tracouring-advance with any g. does the pro-

#### **South Burington** Steering Committee Meeting

#### Thursday March 20, 2008 7:00 P.M.

Agenda

- 1. Approval of minutes of January 17, 2008 Steering Committee Meeting
- Presentation of the Proposed School Budget for FY2009
- 3. Presentation of the Proposed City Budget for FY2009
- 4. Other Ballot Items.
- 5. Other Items to come before the Committee
- 6. Adjournment

South Burlington City Hall 575 Dorset Street South Burlington, VT

The Other Paper – March 13, 2008

The Other Paper, Thursday, MARCH 13, 2008

Page 3

# CITY CENTER

#### City Charter Review Committee Schedules **Public Forums**

Submitted by Denis Gravelin, City of South Burlington

On April 2 and April 16, the City Charter Review Committee plans to hold public forums to encour-age discussion and input on pos-sible changes to the City Charter. The City Charter is the legal document that guides decision on city business, such as budget-ing. City Council representation, and other matters.

Appointed by the City Council in the spring of 2007, the Charter Review Committee is a group of citizens, together with representatives of the School Board and the City Council. The Committee's 11 regular meetings have been and are open to the public. The Committee is chaired by John Simson (simsonsyt@comcast.net).

The Committee has been charged with reviewing the ex-string Gity Charter. The Commit-tee plans to develop recommen-dations for changes to the Char-ier that might better address South Burlington's needs now and in the future. Any changes to the Charter are subject to ap-proval by a majority of the vor-ers, which may be requested on the November ballot.

some of the specific items being considered, including pros and cons of alternative proposals, will be presented in the March 20<sup>th</sup> issue of *The Other Paper*,

At the public forum on April 2 (7 p.m., City Hall), the Committee will ask the public for input on general matters, including the structure of City government and general budget matters.

Questions being considered by the Committee include:

- Should the City Manager/Council form of government be changed?
- Should the number of City Councilors be changed, from the current 5?
- · Should each City Councilor be representative of a specific dis-trict within the city, rather than being elected at-large?
- . Should the City Charter make specific reference to enabling Neighborhood Forums as a way for councilors and others to dis-cuss city issues?

At the April 16 meeting, the Com-mittee will ask the public for in-put on more specific matters. Further information will be available in upcoming issues of The

∧ more detailed discussion of Other Paper.

■

#### South Village Receives DRB Approval

By Colin Ryan, staff writer

South Village Communities LLCs application to amend their planned unit development at 1840 Spear Street by reducing the front yard serbacks on 20 houses and install a series of utility cabinets was approved after more than three months of hearings with the Development Review Board.

The application requested that the developers be allowed to modify a previously approved plan for Phase I. consisting of 156 residential units and a 100-stu-dent educational facility, of the 334 residential unit South Village molect.

The board was able to grant a waiver from the South Burlington Land Development Regulations to allow the developer to install the three utility cabinets at a 10 foot setback, in the front yard of three units.

However, the largest point of conflict throughout the application period has been the reduced front yard setbacks (the distance between the inside edge of the sidewalk and the nearest wall of the home). It has drawn controversy for being a late-in-thegame change and for the tightness of the distance to the sidewalk.

Driving this controversy has been the question of snowplowing. For the second time, hoard member Gayle

Quimby demonstrated her dis-approval for the short setbacks by showing five feet on a tape measure.

measure.

Administrative Officer Ray Eelair agreed in an interview that it is not common for the DRB to graut a 5-foot front setback walver. While front setback requirement for the South Village project is 20 feet, the DRB has granted them, two waivers, first reducing the setback to 10-feet, and now to 5-feet for these 20 units with open porches. The only other development in the city with a 5-foot setback requirement is Queen City Park.

Quimby added that in her re-search she discovered a plow can hrow snow from the read a dis-tance of anywhere from 5 to 30 feet. Resident Kevin Domahue added that dirt and gravel may also be thrown against the win-dows and siding of the new homes.

But the determining factor turned out to be a letter from Public Works Director Bruce Hoar, in which he said he would only allow the setbacks if there was a guarantee that the DRB permanently prohibit curbcuts in 16 lots in the development. Also, he stipulated that 5-feet from the porch to the sidewalk be free of shrubs, trees and other

The board reflected on whether there was a way to make these conditions permanent, and

found a solution in having city staff aid a condition to the ap-plication that there be no curbout to the street in any of the 16 tots. To charge this a fa-ture DRB would actually have to repeal the no curbout condition.

Now that the application has been approved, the developers were able to lay out a timeframe for the rest of Phase I.

The infrastructure component of the project has been under construction since Deforer and SD Ireland, the site contractor, has made great headway in completing the supporting sever mains, stormwater management facilities, and road construction. Dave Marshall of Civil Engineering Associates, who presented the application on behalf of South Village, LLC, said.

Most of the remaining water main, gas main and electrical distribution installation will be completed this spring. Two buildings are currently under construction with additional building permits to be requested now that this permit amendment has been approved. Later this summer we will be submitting an application for the site plan approval of two multi-family buildings located on the west side of the Phase I site."

Marshall went on to say that the developers plan to finishing the utilities and roads for share 14 (the numbers two chirds)

1) sometime this Falls

#### NOTICE OF PUBLIC WORKSHOP AND PUBLIC HEARING

BUBLINGTON INTERNATIONAL AIRPORT PART 150 NOISE COMPATIBILITY PROGRAM UPDATE STUDY MARCH 25, 2008, 7:00PM- 948/PM, HAMILTON ROOM, SECOND L BURLINGTON INTERNATIONAL AIRPORT TERMINAL BUILDE 1200 AIRPORT DRIVE, SOUTH BURLINGTON

The City of Burlington has completed the draft update to its "Noise Compatibility Program" for Burlington International Airport. The draft document is available for public review at the following three locations

Burlington International Airport
1200 Airport Drive, Suite 1
South Burlington, Vermont
Monday-Friday, from 8:00µm to 4:30pm
Monday-Friday, from 8:00µm to 4:30pm

Chittenden County Metropolitan Planning Orga 30 Kimbali Avenue South Burlington, Vermont

Call (802)863-2874 with any questions about access to the material for

The primary purpose of the Noise Compatibility Program update is to consider expansion of the current eligibility area for voluntary acquisition of permanent residences to: (1) better reflect neighborhood boundaries, (2) respond to

permanent resusences to (1) octer refrect neignbormood boundaries, (2) respond to interest expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to moderake future adoutsitions. All interested parties are invited to attend. The purpose of the Workshop and Public Hearing is to provide interested parties with an opportunity to obtain information on the study and its recommendations through one-on-one conversations with altroper representatives. If possible, please call 802-863-2874 during normal business frours if you expect to attend the newton. So the surround can ensure adoutact some is removided for all atend the meeting, so the airport can ensure adequate space is provided for all

All interested parties are invited to provide comments. Forms will be provided at the workshop for submitting written input, although written comments will be accepted in any form. A court reporter will be at the workshop to transcribe verbal comments for any attendees who prefer that method of providing input. The City will accept written comments until 4:00pm Friday April 4, 2008.

Please address any comments or inquiries regarding any aspect of this study to the attention of:
Part 150 Update, Burlington International Airport,
1200 Airport Drive, Suite 1, South Burlington, VT 05403.
Comments received at the Public Hearing and during the comment period will be moduled in the final submission to the Federal Aviation Admiratation. Please plus (1002)1663-2673 or e-mail: renewing@htv.aero with any questions about this proce

#### South Burlington Steering Committee Meeting

#### Thursday March 20, 2008 7:00 P.M.

## Agenda

- Approval of minutes of January 17, 2008 Steering
- Presentation of the Proposed School Budget for FY2009
- Presentation of the Proposed City Budget for FY2009
- Other Ballot Items
- 5. Other Items to come before the Committee
- 6. Adjournment

If you are interested in having an item placed on a future agenda, please contact the superintendent.

Any person requiring special accommodations to attend is meeting should contact the superintendent's office at 652-7252 at least 72 hours before the meeting.

South Burlington City Hall **575 Dorset Street** South Burlington, VT

#### **B.2.2** Notices and Distribution



#### NOTICE OF PUBLIC WORKSHOP and PUBLIC HEARING

# Burlington International Airport Part 150 Noise Compatibility Program Update Study

March 25, 2008, 7:00 pm -9:00 pm, Hamilton Room, Second Level, Burlington International Airport Terminal Building, 1200 Airport Drive, South Burlington, VT

The City of Burlington has completed the draft update to its "Noise Compatibility Program" for Burlington International Airport. The draft document is available for public review at the following three locations

- Burlington International Airport 1200 Airport Drive, Suite 1 South Burlington, Vermont Monday – Friday, from 8:00 am to 4:30 pm.
- South Burlington Planning Office 575 Dorset Street South Burlington, Vermont Monday – Friday, from 8:00 am to 4:30 pm.
- Chittenden County
  Metropolitan Planning Organization
  30 Kimball Avenue
  South Burlington, Vermont

Call (802) 863-2874 with any questions about access to the material for review purposes.

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All interested parties are invited to provide comments. Forms will be provided at the workshop for submitting written input, although written comments will be accepted in any form. A court reporter will be at the workshop to transcribe verbal comments for any attendees who prefer that method of providing input. The City will accept written comments until 4:00 pm Friday April 4, 2008. Please address comments or inquires regarding any aspect of this study to: Part 150 Update, Burlington International Airport, 1200 Airport Drive, Suite 1, South Burlington, VT 05403. Comments received at the Public Hearing and during the comment period will be included in the final submission to the Federal Aviation Administration.

Please phone (802) 863-2874 or email mcewing@btv aero with any questions about this process.

Robert McEwing - Second public workshop/hearing-Airport Noise compatability Program Update

Page 1

From: Robert McEwing

To: ADAM T RICE; Alex Planas, Andrew Jones; Ann Beland; Bill Burdet; Bob Klss; bob.cone@expressje.com, bradley.jensen@vtburl.ane.af.mil; Brian Searles; chuck hafter; Curt Hennigar; desarno@gmail.com, Doug Wood; dpowerbudget@verizon.net; Duane [BTVOZ] Perry; FRANK@vermont.org, generichards@generichards3.com; George Bacigalupo; George Paris; Heather Kendrew; Iritfuller@aoi.com; Jcondos@aoi.com; Jctrzepacz@onioncity.com, jhandverger@onioncity.com, Juli Beth Hinds; Julie\_e\_taylor@usairways.com; Kelly Colling; Kerrl Fadden; kevin.dorn@state.vt.us; Larry Abrams; Lloyd Belnhaur, Mary Sprayregen, mcguirer@willistontown.com; miro@hartlandgroup.biz; mvdunn@hertz.com; Nick Warner; Nick@NorthRampAviation.com; One Filght Up; Patrick Sharrow; phillip.murdock@vtburl.ane.af.mil; rich.turner@state.vt.us; richard.doucette@faa.gov; Rick Varney; Robert Miller; robert.gingras@vt.ngb.army.mil; sjohnstone@ccmpo.org; susan.l.halgh@faa.gov; Tamara Gagne; tlm@vermont.org

Date: 3/4/2008 4:05:23 PM

Subject: Second public workshop/hearing-Airport Noise compatability Program Update

Attached is a notice of the second public workshop/public hearing which is scheduled for **Tuesday, March 25, 2008** at **7:00pm** in the Hamilton Room and conference Rooms 1 and 2 (if needed) at the Airport. Please note that the draft document is available for review at the Airport Administrative Offices, the Chittenden County Metropolitan Planning Organization and the South Burlington Planning Office.

As an important member of the Airport community and civic leader, you are invited to attend and participate in this meeting. Your input is valued. We would appreciate it if you would let us know if you will be attending by calling 863-2874 and advising the receptionist. If you park in the parking garage, please bring your ticket in for validation.

Robert McEwing
Director, Planing & Development
Burlington International Airport
1200 Airport Drive #1
So. Burlington, VT 05403
802-863-2874
802-863-7947 (fax)

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1782-898-798 1700ATH WG18WITTO WESTER ROOT & 15W

#### B.2.3 March 25, 2008 Public Workshop and Public Hearing

The Public Workshop/Hearing Minutes and sign-in sheets are reproduced in Appendix C. Handout – Comment Sheet:



Burlington International Airport
Part 150 Noise Compatibility
Program Update Study
March 25, 2008
Public Workshop and Public Hearing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name:	Phone:
Address:	Date:
I/we wish to comment or inqu	nire about the following aspects of this project:

## Burlington International Airport Attn: Part 150 Update 1200 Airport Drive Suite 1 South Burlington, VT 05403

Place Stamp Stamp



Part 150 Noise Compatibility Program Update March 25, 2008 Public Workshop and Public Hearing To mail your comments, please fold this form in half and close with tape before mailing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

#### Handout – Executive Summary:



# Burlington International Airport (BTV) Part 150 Noise Compatibility Program (NCP) Update Study

#### **EXECUTIVE SUMMARY**

#### As of March 25, 2008 Public Workshop and Public Hearing

The City of Burlington, Vermont (the City) pursues noise abatement and mitigation at Burlington International Airport (the Airport or "BTV") under a Federal Aviation Regulation called "Part 150, Airport Noise Compatibility Planning." The City is conducting this study to update the Airport's Part 150 "Noise Compatibility Program" and anticipates submitting the update to the FAA in mid-April 2008.

This Executive Summary discusses the study background, results, status, remaining steps, and further opportunity for public input. Airport representatives will be available to discuss this information in greater detail at the March 25, 2008 public workshop. The workshop will include a public hearing opportunity for submission of verbal comments. Comments received at the workshop or in writing by 4:00 pm on April 4, 2008 (to the address at the bottom of the next page) will be included and discussed in the final submission to the FAA.

#### Part 150 Overview and Prior Actions at BTV

Part 150 sets forth standards for airports to document noise exposure and establish programs to minimize noise-related land use incompatibilities. A formal submission to the Federal Aviation Administration (FAA) under Part 150 includes documentation for two principal elements: (1) Noise Exposure Maps (NEMs) and (2) a Noise Compatibility Program (NCP). The City has undertaken three prior Part 150 study processes at BTV:

- The City completed the first BTV Part 150 study in 1989, with NEMs for 1989 and 1993, and an initial NCP.
- In May 1997, the City submitted an updated NEM to the FAA, with contours for 1997 and 2002.
- In August 2006, the City submitted a second NEM update to the FAA, with noise contours for 2006 and 2011.

These documents and a draft of the NCP Update being prepared in this study process are available for public review at BTV administrative offices in the terminal building (address at the bottom of the next page). The draft NCP Update document is also available at other locations as indicated at the bottom of the next page.

#### Noise Compatibility Program Update Purpose

Part 150 is a purely voluntary program – no airport is obligated to conduct a Part 150 study or to pursue noise compatibility through it. However, as the preceding summary indicates, Burlington has actively participated in the program over the prior two decades, and has found its participation to be highly beneficial for the City, the Airport, airport users, and surrounding residents.

A primary purpose of the August 2006 NEM update was to provide updated noise contours to use in continued implementation of the FAA-approved NCP element to acquire mobile homes within the 65 decibel (dB) Day-Night Average Sound Level (DNL) contour and "permanent" residences within the 70 dB contour. Figure 2 from the study, which depicts the 2011 contours, is attached to this summary for reference. At the March 25<sup>th</sup> workshop, BTV staff and consultants will present and explain maps that will permit residents to see where their homes fall in relation to these contours.

An additional outcome of the NEM update was a recommendation that the City initiate an NCP update to consider expansion of the eligibility boundary for voluntary acquisition of permanent residences out to 65 dB DNL, to: (1) assist in "humanizing" the program to better reflect neighborhood boundaries, (2) respond to interest to participate expressed by some local residents outside the current eligibility area, and (3) establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions. The FAA concurred with the recommendation and provided the City with a grant to conduct the NCP update. Pursuit of this recommendation is the primary purpose of this current study effort.

Burlington International Airport Part 150 Noise Compatibility Program Update Study EXECUTIVE SUMMARY March 2008

#### Recommended Noise Compatibility Program Revision

The City of Burlington proposes to modify the existing Land Acquisition and Relocation Program to expand eligibility to the 65 dB DNL contour, as defined by FAA-compliant Noise Exposure Maps. The program will continue to be entirely voluntary; no property owner will be required to participate. The following is a general set of guidelines for scheduling acquisition:

- \* The eligibility boundary will be adjusted ("humanized") to follow streets or blocks to ensure consistent treatment and to maintain neighborhood stability. The program boundary may be adjusted over time as a result of comments received during this NCP update, Noise Exposure Map updates and future Airport staff discussions with local municipalities and property owners. Figure 3 of the study presents the proposed humanized program boundary within South Burlington that Airport staff have developed with that city's Planning Department; that figure is attached to this summary for reference.
- Priority will generally increase with noise exposure level. Properties within the 70 dB DNL contour will have the highest priority – as they would be eligible for acquisition independent of this update, followed by properties within the humanized boundary, and then within the 65 dB DNL contour.
- Properties abutting parcels owned by the Airport and contiguous properties offered for acquisition at the same time will be given preference in order to maintain neighborhood boundaries.

Other major elements of the proposed program include (full details are presented in the draft document):

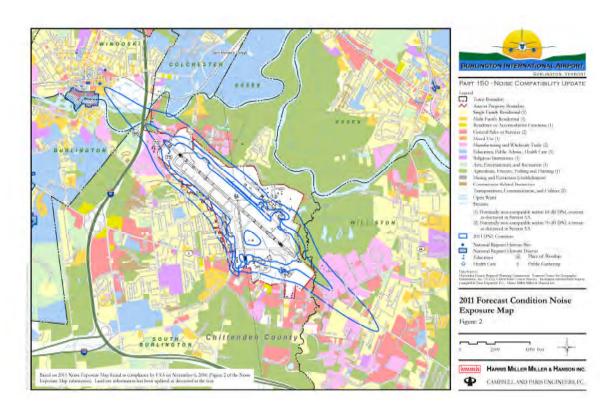
- Eligible property owners will be paid fair market value for their property at its highest and best rate, and provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and implementing Department of Transportation regulations.
- Properties must meet any other eligibility requirements that the FAA may adopt. For example, under current FAA policy, residences built after October 1, 1998 are not eligible for acquisition
- \* The program will continue until all eligible properties volunteered for purchase are acquired.
- The pace of property acquisition will depend on the rate at which owners offer homes for purchase and the availability of federal and local matching funds. Based on prior experience, expected demand, and anticipated funding, it is projected that up to eight or nine residences will be acquired each year.
- \* The City will develop a reuse plan as required by FAA policy; the reused land must be noise compatible.

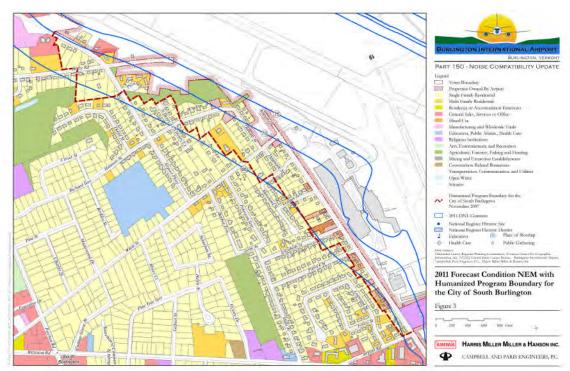
#### Remaining Steps and Anticipated Schedule

Task	Date
Deadline for comments on draft study documentation	4:00 pm, April 4, 2008 at the Airport
2. City submits final study documentation to FAA	Anticipated mid-April, 2008
3. FAA initiates formal review and the federal comment period with publication in the Federal Register (180-day maximum review period)	Anticipated late April / early May, 2008

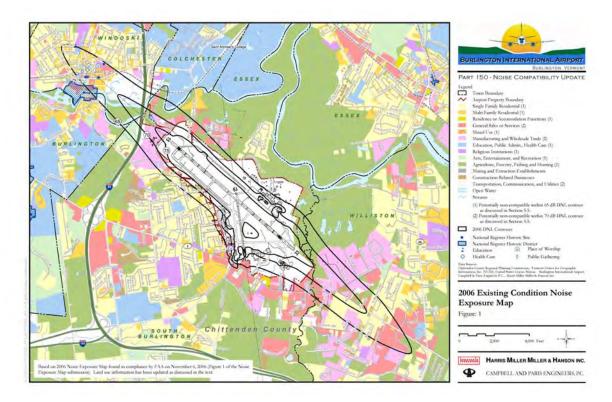
#### Submission of Comments, Review of Draft Document and Additional Information

Please address written comments or inquires regarding any aspect of this study to: Part 150 Update, Burlington International Airport, 1200 Airport Drive, Suite 1, South Burlington, VT 05403. The draft document is available for review during business hours at the following three locations: the Airport (address above); the South Burlington Planning Office, 575 Dorset Street South Burlington, Vermont; and the Chittenden County Metropolitan Planning Organization, 30 Kimball Avenue, South Burlington, Vermont. Please contact Robert McEwing, Director of Planning & Development with any questions about access to the material for review purposes or with any questions about this process. *Phone:* (802) 863-2874. *Email:* mcewing@btv.aero.

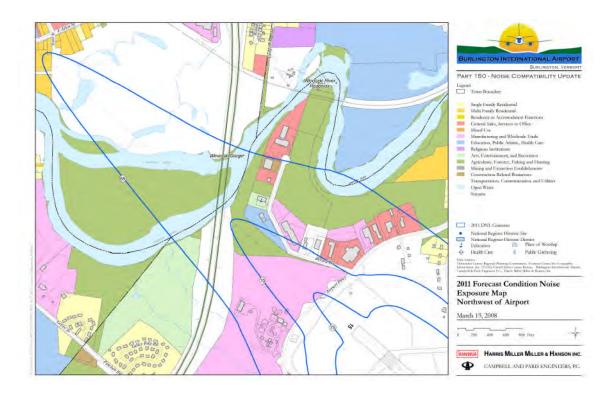


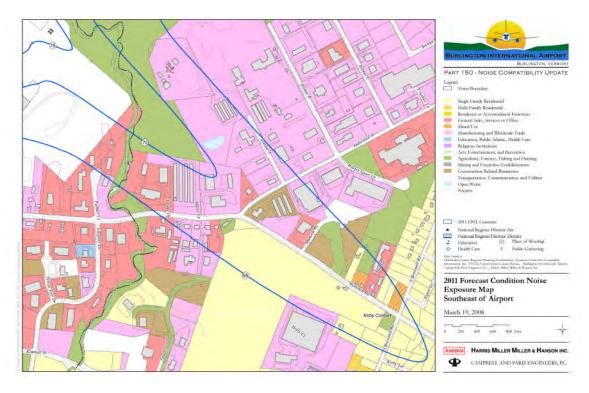


Handout – 2006 Existing NEM

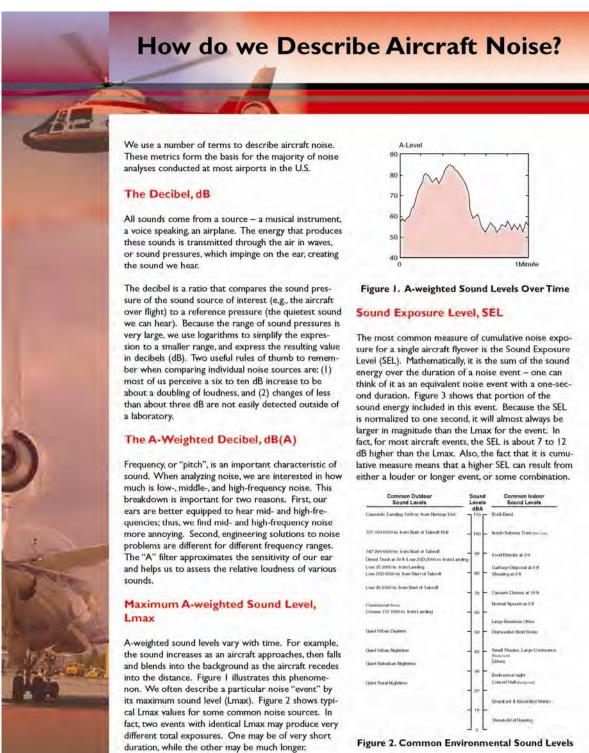


#### Handout - Winooski and Williston:





#### Handout – Aircraft Noise Description:



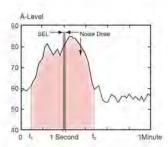


Figure 3. Sound Exposure Level

SEL provides a comprehensive way to describe noise events for use in modeling and comparing noise environments. Computer noise models base their computations on SEL values.

#### Day-Night Average Sound Level, DNL

The Day-Night Average Sound Level (DNL) represents noise as it occurs over a 24-hour period, with the assumption noise events occurring at night (10 p.m. to 7 a.m.) are 10 dB louder than they really are. This 10 dB penalty is applied to account for greater sensitivity on nighttime noise, and the fact that events at night are often perceived to be more intrusive because night-time ambient noise is less than daytime ambient noise.

Figure 4 depicts a hypothetical dally noise dose. The top frame repeats the one-minute noise exposure that was shown in Figure 1. The center frame includes this one-minute interval within a full hour; now the shaded area represents the noise during that hour with 16 noise events, each producing an SEL. Finally, the bottom frame includes the one-hour interval within a full 24 hours. Here the shaded area represents the listener's noise dose over a full day.

DNL normally can be measured with standard monitoring equipment or predicted with computer models.

Most aircraft noise studies utilize computer-generated estimates of DNL, determined by accounting for all of the SELs from individual events which comprise the total noise dose at a given location on the ground.

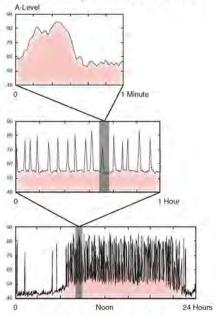


Figure 4. Daily Noise Dose

Computed values of DNL are often depicted as noise contours reflecting lines of equal exposure around an airport (much as topographic maps indicate contours of equal elevation). DNL contours usually reflect annual average operating conditions, taking into account the average number of flights each day, how often each runway is used throughout the year, and where over the surrounding communities the aircraft normally fly.



#### HARRIS MILLER MILLER & HANSON INC.

Consultants in Noise and Vibration Control www.hmmh.com Boards:

www.hmmh.com

# Welcome to the Burlington International Airport Part 150 e Compatibility Program Update St

Noise Compatibility Program Update Study Public Hearing/Workshop



March 25, 2008

#### Proposed Revision to Current Noise Compatibility Program



- Approved NCP includes voluntary land acquisition program that uses federal grants to acquire:
  - Mobile homes within the 65 dB DNL contour
  - Permanent residences within the 70 dB DNL contour
- The primary purpose of this NCP update is to expand eligibility for voluntary acquisition of permanent residences out to 65 dB DNL, to:
  - Assist in "humanizing" the program to better reflect neighborhood boundaries
  - Respond to interest to participate expressed by some local residents outside the current eligibility area, and
  - Establish clear, objective bases for determining the appropriate order in which to undertake future acquisitions
- Program participation will continue to be entirely voluntary

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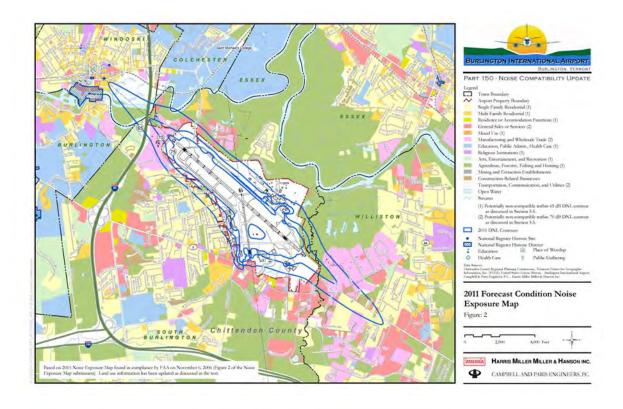


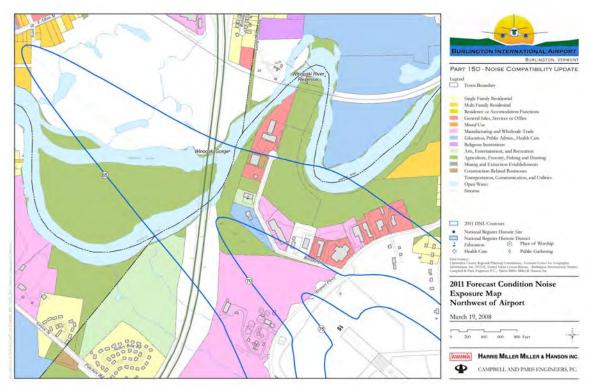
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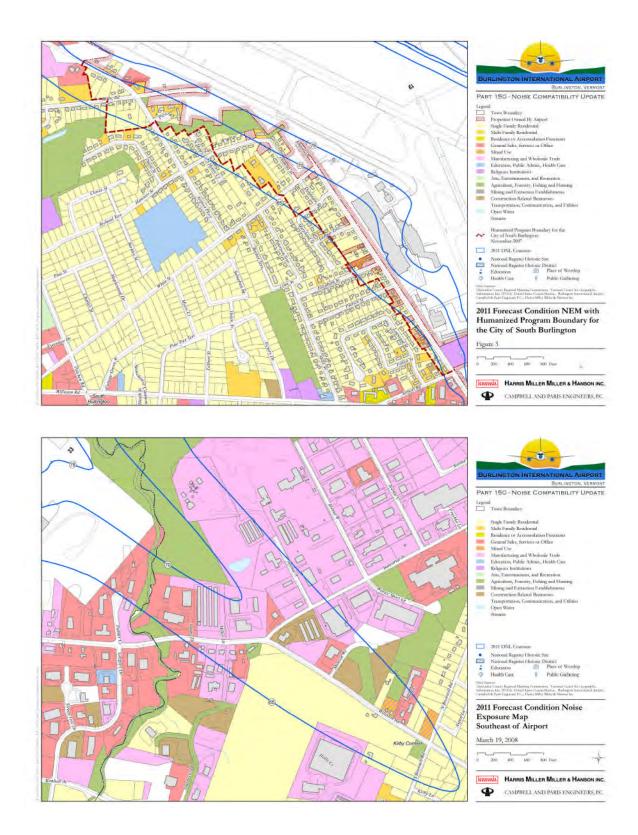
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- Program participation will continue to be entirely voluntary







#### **B.2.4** Written Comments Received

Comment 1 - 3/25/08



Burlington International Airport Part 150 Noise Compatibility Program Update Study March 25, 2008 Public Workshop and Public Hearing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name:	Janua	er Bouffard	Phone:	862-2105
Address: _	35 5	is Henry Ct.	Date:	3/25/2008
-	80 B	welingto		
/we wish to	comment or	inquire about the fol	lowing aspects	of this project:
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time	fram	to have	a .1	house Shatis
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Comment 2 - 3/27/08

Ner.27, 2008 2:25PM Bullington Airport 802-868-7947

No.4797 P. I

MAR 27 2008



Burlington International Airport
Part 150 Noise Compatibility
Program Update Study
March 25, 2008
Public Workshop and Public Hearing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name: Quaith Molin	Phone:	864-6393
Address: 51 S Henry Ct	Date:	(3/25/08

I/we wish to comment or inquire about the following aspects of this project:

concern us. With our house situated on the upposite side of the aquisition line (literally), use are more concerned with what will be built in our front yard, (ic-commercial property, parking lots). We are happy to see the three houses on Dumont were buildozed & a pleasant green space created. Even if the remaining houses purchased are situated between occupied homes; we would rather see them taken down, than have them be run down vacant homes that will become targets. Is it possible to notify Us of future meetings by mail or email (judith nolin@eds.co

Comment 3 - 3/25/08



Burlington International Airport
Part 150 Noise Compatibility
Program Update Study
March 25, 2008
Public Workshop and Public Hearing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name: Chal Phillips	Phone: 865 9561
Address: 7 Maryland Street	Date: 3/28/8
I/we wish to comment or inquire about the	e following aspects of this project:
Confusing. Is a home offside the	
Also for us to comment on	the boundaries or the
program as a whole, it would	4
identified up front. For example	specific properties upower
potentially looking at alest building or surface parting lot	abotting a park, airport office
Also I vige the airport +	S.B. planing commission to
For a use that with benefits.	
be a unique opportunity to imp	Se the community.

Comment 4 - 3/25/08



Burlington International Airport
Part 150 Noise Compatibility
Program Update Study
March 25, 2008
Public Workshop and Public Hearing

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name:	San	dra M	erce	Phone:	658-4794
Address	:727	umont	Ave	Date:	3 25 08
	50.6	surling	ton, VI		
Twe wish	to comm	ent or inquir	e about the fo	llowing aspect	s of this project:
Am	Prv 1	nteres	ted in	selling	my home
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Comment 5 - 3/20/08

From: richard.doucette@faa.gov

Sent: Thursday, March 20, 2008 17:10

To: RMcEwing@btv.aero

Cc: GTParis@campbell-paris.com; David A. Crandall

Subject: BTV NCP Update

I have completed my review of the draft Noise Compatibility Plan (NCP) Update. The document appears to adequately address all the necessary issues. To facilitate review by other FAA Lines of Business, I have forwarded my copy to our Legal Dept and discussed the project with Attorney John Donnelly. His concurrence is required, along with our Division Manager's signature, for final FAA approval of the NCP.

I will have the Federal Register Notice ready next week, so that it can be posted in the Register as soon as the final document is submitted, after the public hearing next week. I anticipate a 45 day public comment period from the date of submission of the Federal Register Notice. This is shorter than the standard 60 day comment period. I have confirmed with Washington that there is no regulatory requirement for a specific length of the comment period. We expect no public comment through the Federal Register, as this is a very minor change to the NCP and the deadline for an

FY08 noise abatement grant is very tight, a shorter timeframe is appropriate.

Assuming little or no public comment, this would put us on track for an FAA approval by the first week of June. This should make BTV eligible for an

FY08 grant for noise-related land acquisition. As always, all other grant requirements are met, including submission of completed grant applications by May 1.

Richard Doucette

FAA New England Region

Comment 6 and Associated Response – 3/21/08

From: Robert McEwing [rmcewing@btv.aero]

Sent: Friday, March 21, 2008 11:50

To: Colin Ryan

Cc: Brian Searles; GTParis@campbell-paris.com; David A. Crandall

Subject: Re: Fwd: quick question for The Other Paper

Colin: 14 CFR Part 150 "Airport Noise Compatibility Planning" sets forth standards for airport operators to use in documenting noise exposure around the airport. It also defines the process an airport must follow in developing and obtaining FAA aproval of programs to reduce or eliminate incompatibilities between aircraft noise and surrounding land uses. Part 150 further provides specific standards and systems for measuring noise, estimating cumulative noise exposusre, dewveloping Noise Exposure Maps, coordinating the development of a Noise Compatibility Program, and the review and approval process.

The first Noise Compatability Program (NCP) was developed by the Airport and approved in 1990. It recommended the voluntary purchase of property adjacent to the airport that was in the 70 DNL noise level and above (DNL is an average day-night measure of noise). In 2007, the Airport completed an update of the Noise Exposure Maps and we are currently in the process of updating the Noise Compatability Program.

One purpose is to allow people who are in the 65 DNL noise level and above to be included in a land acquisition program if they desire.

Remember, this is a voluntary program. We're just providing the opportunity to sell. So, the update of the NCP is what the workshop and

hearing is about on Tuesday, March 25. A copy of the draft NCP update

is available at the Airport and I could loan you a copy if you desire.

Go to the Administration Office on the second floor and ask for me or for a copy of the draft document. A copy is also available for review at the So. Burlington Planning Office.

I hope this isn't too much of an answer to your one, or was it four, questions. If you have other questions, let me know.

By the way. Colin and Ryan. Are you Scottish or Irish?

Robert McEwing
Director, Planing & Development
Burlington International Airport
1200 Airport Drive #1
So. Burlington, VT 05403
802-863-2874
802-863-7947 (fax)
>>> "Colin Ryan" <crossingstreets@gmail.com> 3/21/2008 9:28:43 AM &gt;&gt;&gt;</crossingstreets@gmail.com>
Bob,
In light of Brian's out-of-office message, I'm forwarding this question to you - perhaps you can shed some light on it?
Thanks.
-Colin
Forwarded message
Hi Brian,
My name is Colin, and I write for South Burlington's The Other Paper.
I have a question about the airport purchases of neighboring homes that Chuck Hafter suggested I put to you:
What determines that 65 decibels is the noise maximum for a neighboring residence? It's a federal FAA rule, right? If so, what is the name of it?
And is 65 decibels the correct maximum?

Hey, that's actually four questions.
Thanks for your time.
-Colin

Comment 7 and Associated Response – 3/24/08

From: Robert McEwing [rmcewing@btv.aero]

Sent: Monday, March 24, 2008 13:31

To: Eugene Palombo

Cc: Brian Searles; GTParis@campbell-paris.com; David A. Crandall

Subject: Re: Part 150 Update, Burlington International Airport -

March25, 2008

Thank you for your email. We will use this as input into the comments.

While we are purchasing homes in the 65dnl noise level and above in areas adjacent to the airport we hope to create green areas and shrub plantings adjacent to the housing areas to act as a noise buffer. I hear what you are saying about noise barriers and we are talking about that possibility; but I must express my feelings that I personally think they are offensive and create an unsightly division between areas that might work good for adjacent road noise but won't help much with the noise of departing aircraft. Anyhow, thats my 2 cents worth.

Again, thanks for the comments.

**Bob McEwing** 

>>> "Eugene Palombo" <genepalombo@gmail.com> 3/24/2008 9:42:30 AM >>>

To Whom it may concern,

I was very interested in, and planning on, attending tomorrow night's meeting, but have been called away on business.

I appreciate the availability and openness of the Airport and the City of South Burlington to discuss this important neighborhood issue.

I also appreciate very much the service that BTV provides to me and this community. I travel on business about every 6 to 8 weeks, and the presence and proximity of the airport makes living in this community, with it's good schools and natural beauty, not only possible but very convenient.

So I'm curious
Have Airport Noise Barriers such as
(http://www.acoustax.com/airport.html),
been considered as an alternative to tearing down homes?
At the 2/19 City Council meeting, held in Chamberlin School, and from the all material I've read, I've not heard this even suggested.
Would they not serve to shrink, or redirect, the 65 DB zone? I think they could be especially useful at the North and South end gates to mitigate taxi/idle noise.
Tearing down homes, as the only option, seems to me like a "scorched earth policy"
Can the 3 Million dollars per year, slated for home destruction, be used for this type purpose?
One last question. Is this email an acceptable method of entering comments that will be submitted to the FAA?
Sincerely,
Gene Palombo
34 Myers Court
South Burlington, VT 05403

Comment 8 - 3/28/08 (sent as two separate emails)

From: rchasse [rchasse@surfglobal.net]

Sent: Friday, March 28, 2008 09:15

To: rmcewing@btv.aero

Subject: 15 n. henry court

Read the media coverage on the informational meeting. Raised some questions in my mind. Own property at 15 n. henry court that is goning on the market this July after 35 years...not exactly flipping the house. So here are my points:

The term 'fair market value' is relative to the time of purchase. The very exsistence of the acquistion program has already affected the market

even more so when an adjoining property is sold.

From: rchasse [rchasse@surfglobal.net]

Sent: Friday, March 28, 2008 09:42

To: rmcewing@btv.aero

Subject: part2 15 n. henry ct.

oops. hit 'send' on part one accidently.

Market value cont'd: The ideal would be to purchase all the properties at once, which is not possible, or to establish some reference point so that the last acquistions aren't penalized for being last.

'Noise compatible use of the aquistions' around every other airport I've seen is commercial space, in particular, warehousing. Alhtough the city planners are voicing concerns about neighborhood stability I'm sure the loss of property income base is going to be the ultimate concern and they will embrace the switch to commercial zoning as a solution. (follow the money). That will also affect market values...another reason to establish some reference point on market value so the last are protected.

The planners getting involved is foreboding.. the word 'circ' comes to mind.

Those were my thoughts on reading of your meeting. I guess this is also a notice of the upcoming marketing of our property so we can be added to the list of people crying "buy mine". Thanks for the time

Richard Chasse.

Comment 9 - 4/4/08

From: Margaret Palombo [margaretpalombo@gmail.com]

Sent: Friday, April 04, 2008 09:13

To: rmcewing@btv.aero

Subject: comment to airport and FAA

Hello, My name is Margaret Palombo and I wish to give my comments and suggestions to the Burlington International Airport and the FAA.

I'm glad that the airport is expanding and realize its benefit to South Burlington. I am one of the residents in the neighborhood near the airport, and my home is out of the decibal range for selling. I STRONGLY request that the airport and FAA do everything within their power to reduce noise (sound barriers, whatever technology is

available) which will continue to affect the neighboring community. I love where I live and I hope the airport plans to enhance the surrounding area rather than affect it negatively. Please consider uses for the land you will be purchasing which will add to the positive qualities of this unique, established South Burlington area.

I and many of my neighbors are hoping to see a revival in the area with incoming young families, the proposed city center within walking distance, along with the route 2 corrider improvments that are being discussed. We see this area of S.B. as a "diamond in the rough" and hope to see it blossom as a unique "in town", community. Please be sure the airport is a part of this plan for improvment. Thank you for your consideration.

Sincerely,

Margaret Palombo

### Comment 10 - 3/14/08

----Original Message-----

From: FICK, DOUGLAS E [mailto:douglas.fick@vtburl.ang.af.mil]

Sent: Friday, March 14, 2008 9:56 AM

To: 'bsearles@btv.aero'

Subject: Burlington Free Press Article

Hi Brian,

The Free Press article mentioned 'less noise' from our new F-16's. I wasn't sure if that comment was made from your level or if it was a derivative from what I'd said last Wednesday during an interview (I mentioned that it was quieter on the ramp due to the inlet configuration, but airborne would be the same).

I just wanted to make sure that everyone understood; realistically there is no difference between block 25's and block 30's with regard to noise impact.

Thanks,

Col Doug "Merlin" Fick 158th Fighter Wing Commander Vermont Air National Guard douglas.fick@vtburl.ang.af.mil DSN 220-5215/5212 COMM (802) 660-5215/5212

Classification: UNCLASSIFIED

Caveats: NONE

Comment 11 and associated response – 3/13/08

Page 1 of 3

#### Robert McEwing - Re: purchase of homes around airport

From: Lori Bachand <lobachand@verizon.net>
To: Robert McEwing <rmcewing@btv.aero>

Date: 3/13/2008 10:22:41 AM

Subject: Re: purchase of homes around airport

Hi Robert,

Thanks so much for getting back to me so promptly. Wed. works for me next week at 3:15 or later.

Lori

---- Original Message ----

From: Robert McEwing <a href="mailto:rmcewing@btv.aero">rmcewing@btv.aero</a>
To: Lori Bachand <a href="mailto:lobachand@verizon.net">lobachand@verizon.net</a>
Sent: Thursday, March 13, 2008 10:01:18 AM
Subject: Re: purchase of homes around airport

I can meet here at the Airport next week on Monday, Weds or Thursday afternoon around 3pm (or a little later if that works). Check you schedule and let me know.

>>> Lori Bachand <lobachand@verizon.net> 3/13/2008 8:34:35 AM >>> Hello Robert,

First please accept my apology for not responding to you way back. I have read the article in the newspaper regarding the hold on buying homes. Is there really a hold and no more room to purchase any homes? I still am interested in speaking with you about our home. I also disagree with the city counsels point of view on the whole thing. I, as a homeowner can understand the concern about decreasing property values and the appearance of the neighborhood, but also think that almost becomes a case of if one home after another are being purchased, shouldn't they all? I personally would be very bothered and upset if all or almost all of the homes on my street were purchased and mine was still standing there amidst because that would be an eyesore and it would be louder than it already is. In addition, it should be between the homeowners and the airport to decide. (This is info. you can take to counsel)

Thanks and I look forward to talking with you.

TO HOLD A Continuational Continual Tomal CANTAGONI LITM

3/13/2008

Page 2 of 3

#### Lori Bachand

From: Robert McEwing <a href="mailto:rmcewing@btv.aero">rmcewing@btv.aero</a>
To: Lori Bachand <a href="mailto:sold:dobachand@verizon.net">sold:dobachand@verizon.net</a>
Sent: Wednesday, November 21, 2007 10:52:55 AM
Subject: Re: purchase of homes around airport

Lori: I would be happy to meet with you and go over the recent update of the noise profiles and the airport's land acquisition program. I'm not aware of any conversations with the Ploofs on Dumont Ave though we are working with Ploofs on Airport Drive across the street from the Airport. Different Ploofs. All discussions are based on homeowners coming forth to the Airport with a desire to sell and we try and put them in a program if they fit within the criteria. I can possibly meet with you at the Airport sometime next week. Monday AM works and much of

Robert McEwing Director, Planing & Development Burlington International Airport 1200 Airport Drive #1 So. Burlington, VT 05403 802-863-2874 802-863-7947 (fax)

Wednesday. Give me a couple of times/dates.

>>> Lori Bachand <lobachand@verizon.net> 11/21/2007 9:57:24 AM >>> Hello Bob,

My name is Lori Bachand. I am the property owner and resident of 68 Dumont Avenue (on the runway side) and have lot's of questions. I am hoping you can help me or direct me to someone that can. 1. How can we find out our decibel range? 2. How can we find out what future plans/buys are in the works? 3. Can we approach the airport and present our home for sale in the event our home may not be in the works

for purchase in the near future? 4. There is rumor that the airport

approached the "Ploofs" that reside across and diagonally from us

house) and are buying their house. Why would their house be purchased before the rest of my side of the street? It doesn't quite make sense to

me? Any help you can provide would be very much appreciated. Thank you

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3/13/2008

Page 3 of 3
and Happy Thanksgiving!
Sincerely,
Lori Bachand

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3/13/2008

### Comment 12 and associated response -3/4/08

Robert McEwing - RE: Re:

Page 1

 From:
 Brian Searles

 To:
 Sara Buscher

 Date:
 3/4/2008 12:01:55 PM

 Subject:
 RE: Re:

Sara - Please let me know if you have further questions or need clarification on any of this. Thanks.

Brian R. Searles Director of Aviation Burlington International Airport 1200 Airport Drive #1 South Burlington, VT 05403 802-863-2874 bsearles@btv.aero

>>> "Buscher, Sara" <sbuscher@burlingt.gannett.com> 3/3/2008 5:20 PM >>>

Thanks for getting back to me so quickly.

Here's what I'm looking for:

1. Was the November Noise Compatibility Update Study initiated by the City of South Burlington, or the airport?

Answer: The Noise Compatibility Update is a follow-up to the 2006 Noise Study which developed the latest noise contours around the airport. Both studies are required by federal law. So the direct answer is that the U.S. Government through Federal Aviation Administration requires the airport to do the studies periodically. The last Noise Study was done in 1990 so this is an update of that information. Both studies, the Noise Study of 2006 and the Noise Compatability Study of 2007 were paid for by the F.A.A.

Is it accurate to say that city council has put the program to purchase houses (based on the noise regulations) on hold? And if so, for how long?

Not exactly. The City expressed concerns recently about the Noise Compatability Program in terms of its effect on neighborhoods and affordable housing stock. We agreed to take a pause from the program while discussions take place about the order of home purchases and ways that the effects on neighborhoods can be mitigated. Home purchases that are in process, in other words where offers have been made under the FY-2008 program, are moving forward. Other homes in the program for subsequent years are on hold.

3. How long has the airport been purchasing city homes? How many to date? How much money has been alloted for the purpose?

The records I have go back to 1982 and indicate that 86 homes have been purchased for a total of approximately \$17 million dollars. These purchases include such things as relocation expenses. These purchases have been made with a combination of funds, either for noise mitigation, airport development or both. All purchases since 2005 have been under the Noise program. The money allocated for this program depends on an annual appropriation from Congress but has been running between \$2-3 million per year which has facilitated the purchase of about 8 properties per year. There are 8 in the 2008 program. It should be noted, that we have just this week turned down an offer from the FAA for \$1.5 million in additional noise money for the current year because of our desire to work out the City of South Burlington concerns in a positive way.

- 4. When you say a home is "in the program" does that mean it's been purchased?
- No. Homes are "in the program" for prospective purchase and only if the owner voluntarily comes forward

Robert McEwing - RE: Re:

Page 2

and expresses a desire for the airport to make an offer. There are more and more people coming forward due to the current housing market. For people who have been in their homes a long time and are looking to retire, the airport can represent their best opportunity in today's market.

5. How many homes does the airport plan to buy? Or how many fall within the noise contours?

Once again, the program is totally voluntary. Our program currently goes through 2011 and 16 homeowners have asked to be included. We have made no offers on any of these homes due to the current discussions with the City. There are a total of 74 homes that fall within the 65 dbl. contour and are "eligible" for the program.

6. Are the following figures I jotted down from the council meeting accurate?

The airport anticipates its commercial air service will continue to grow at a rate of 3.8 percent per year, from its current 1.4 million passengers to 2.8 million over ten years, based on the addition of a new airline and a thirty-five percent increase in passengers traveling from Canada to use the airport.

The airport also plans to redesign its south end maintenance, cargo and general aviation facilities, an expansion expected to create up to 865 new jobs over the next ten years. The airport currently provides 1048 jobs and expects to add another 500 indirect (what does "indirect" mean?) jobs by 2018, at an estimated \$52 million in additional income for Vermonters per year.

The FAA study of New England airports projects a growth rate for Burlington of 3.8%. This would result in annual total passengers rising from the current 1.4 million to 2.0 million in 2018. Canadians represent an estimated 35% of our current business and there is really no way to predict how that will go in the future, however we assume that it will be part of our annual increase as projected. In terms of the new carrier, that is a significant event but as we look out over ten years we have to assume that there will be continued growth in air service to match the demand increased demand and that may mean more service from existing carriers and/or more new carriers.

Economic and Policy Resources has projected that our \$235 million dollar investment in the airport through 2018, including the South End Development, which is maintenance, cargo and general aviation will result in 365 direct jobs (on the airport) and 500 indirect jobs that support the new economic activity. This is a number, projected by a computer model, that assumes additional business opportunity off the airport (banking, retail, services etc.). The result of all this is about \$52 million in income for Vermonters per year. The number of current employees at the airport is 1,048 and the total economic activity is estimated at \$350 million per year.

Thank you again for your time.

Sara Buscher South Burlington community news reporter The Burlington Free Press 651-4811

——Original Message——From: Brian Searles [mailto:bsearles@btv.aero]
Sent: 3/3/2008 4:54 PM

Robert McEwing - RE: Re:

Page 3

To: Buscher, Sara Subject: Re:

Sara - I am away from the office today but will be in tomorrow morning. It would be helpful if you could e-mail your questions and I can respond that way or talk to you tomorow. Thanks.

Brian R, Searles
Director of Aviation
Burlington International Airport
1200 Airport Drive #1
South Burlington, VT 05403
802-863-2874
bsearles@btv.aero
>>> "Buscher, Sara" <sbuscher@burlingt.gannett.com> 03/03/08 3:41 PM >>>
Hi.Brian,

I'm writing a follow-up to the discussion of the airport's growing impact on local neighborhoods (at the last city council meeting), and wonder if you have time to clarify a few details for me. I can be reached at 651-4811 until about 4:30 p.m. today.

I could also send my questions via email, if you prefer.

Thank you!

Sincerely,

Sara Buscher
South Burlington community news reporter
The Burlington Free Press
651-4811 <a href="mailto:sbuscher@bfp.burlingtonfreepress.com">sbuscher@bfp.burlingtonfreepress.com</a>

CC: Robert McEwing

Comment 13 - 4/01/08

APR 0 8 7908



Burlington International Airport
Part 150 Noise Compatibility
Program Update Study
March 25, 2008
Public Workshop and Public Hearing

Phone: 802 | 862-3291

Comments received by 4 pm Friday April 4, 2008 at the airport offices will be incorporated into the final submission to the FAA.

Name: Verity Lattrelle Phone: 802/862-3291
Address: 21 5. Henry C+ Date: 4-1-08
S. Burlington, UT 05403
I/we wish to comment or inquire about the following aspects of this project:
@ would like to see being/confers replace
the homes that are being tour down. The home
that have been and will be from down acted as
buffers to the ourrounding himas. (All noise car
be in the air as planes run their engines, land
and take off - all things that take place on
the ground.)
@ would like to see the emoty lots stay "green"
(2) would like to see the emoty lots otay "green" I. e. plantings, hees, be turned into a nice park
maybe.
0

T487-638-700 7100018 6000 61/0001 802-15-76-7

Comment 14 – 4/14/08

From: Charles Hafter [chafter@sburl.com]

Sent: Monday, April 14, 2008 13:35

To: Brian Searles

Subject: City of SB comments on NCP Update

Attachments: Airport comments NCP.doc; Header

Dear Brian: Attached are the comments from the City of South Burlington regarding the draft Noise Compatibility Program Update.

A hard copy will follow. We need to get together asap to discuss the study proposed and the role of the City in such a study.

Chuck Hafter

[contents of the attachment "Airport Comments NCP.doc" are reproduced on the following pages; The contents of "Header" contained email transmittal information and that file is not reproduced]

April 8, 2008

Mr. Brian Searles General Manager Burlington International Airport South Burlington, VT 05043

Re: City of South Burlington comments on Noise Compatibility Program Update

### Dear Brian:

The City of South Burlington appreciates the opportunity to comment on the Noise Compatibility Program Update dated February 2008. The City Council recognizes the importance of the Burlington International Airport to the economy of South Burlington, the region and the state. We also appreciate the positive relationship that has existed between the Airport and the City over many years and through various growth spurts. The current Airport expansion and acquisition programs present opportunities if handled in a manner that recognizes the needs of all stake-holders including the Airport, the City of South Burlington and private property owners.

Since the Airport is located wholly within the City of South Burlington corporate limits, the actions of the Airport impact disproportionately on our community. It is in that spirit that we present these comments.

### 1.1 Purpose and Request for FAA Determination

Is it the belief of the Airport that the three reasons behind the Update have been achieved in this report? In particular has the Update "established clear, objective bases for determining the appropriate order in which to undertake future acquisitions?" While the Plan prioritizes among the different dB contours (page 33), it makes no proposal for properties within the same noise contour and needs greater specificity to meet the stated goal.

### 2.3 Project Roles and Responsibilities

In the listing of the three groups involved in the Part 150 NCP Update (The City of Burlington, Consulting Team and the Federal Aviation Administration) a glaring omission seems to be the City of South Burlington. Given the location of the Airport, and the impact of noise on the adjacent neighborhoods in South Burlington, the inclusion

of the City of South Burlington in the study team might have eliminated or reduced the communications problems associated with the development and review of the Update. Not only would have communications between the Airport and the City improved, but the city staff would have had the appropriate and accurate knowledge to answer questions from residents and to deflate rumors regarding acquisitions.

We request that consideration be given to including South Burlington representatives on future working groups for reports that involve the City or its residents.

### 3.0 Existing Noise Compatibility Program

The existing plan presents a strong emphasis on property acquisition as the preferential option for implementation of the NCP. This may be the correct approach, but the City of South Burlington requests that the following items related to Airport Operating Measures (3.1) and Monitoring and Review Elements (3.2) be reviewed and, if appropriate, included in the Recommended Noise Compatibility Program Revision (4.0). The city believes that broadening the range of acceptable alternatives to reduce noise will not only expand the Airports toolbox but also provide reasonable options for residents who do not wish to sell their homes but still want a better quality of life. In any event, some residents will still reside within in the 65+ dB limit zone for at least a decade based on the property acquisition schedule. These options would provide them better living conditions while waiting to transfer property to the Airport.

- 3.1.5/3.1.6/3.1.7 Military Minimization: The City realizes the necessity for
  unrestricted operations of the National Guard and Air Guard so they can fulfill
  their mission. However, dialogue should be opened with military officials to
  determine if more effective noise measures can be implemented. The military
  needs to be made aware of noise concerns of residents. The Airport should
  facilitate a meeting between the interested parties; perhaps this group can meet on
  a quarterly basis to discuss noise and operational issues.
- 3.3.2 Soundproofing: The current NCP indicates that the City of Burlington has chosen not to consider soundproofing as an option. Soundproofing may provide an alternative for residents, particularly in the 65-70 dB contour, who wish to retain their homes, or who may live within the "humanized boundary", ie. within the 65dB contour but not scheduled for acquisition. Individuals have commented that they have been unable to find properties in South Burlington to relocate to at similar price levels; soundproofing might be agreeable to these individuals who wish to remain in South Burlington. The City recommends the Airport reconsider its decision not to include soundproofing in the mitigation program.
- 3.3.3 Aviation Easement: The City does not believe that the provision of any soundproofing or other noise mitigation options should be based on the Airport requiring avigation easements.
- 3.3.6 Real Estate Disclosures: Based on the potential impacts on property in the 65+ dB zone, the City of South Burlington would agree to work with the Airport on a Real Estate Disclosure policy for such properties. This seems a reasonable approach to forestall potential litigation issues.

### 4. Recommended Noise Compatibility Program Revision

The City has no objection, in principle, to the extension of the land acquisition contours to the 65 dB level. We would like to see the addition of the points addressed above to this section; ie. soundproofing, military minimization.

It is our understanding that the projected 2011 Forecast Condition 65dB model contour is based on the removal of all effected homes so that the line would not "creep" further from the Airport after the acquired homes were removed. Can you confirm this? If this is not correct, will the removal of acquired properties have any impact on the location of the contour?

After discussion with Brian Searles and Mike Flaherty, the City is expecting that the requirement for the completion of a land-use study as scoped by the City (attached) and in conformance with the requirements of the Management of Acquired Noise Land: Inventory-Reuse will be included in this section. Such a study must be completed and approved by the South Burlington Planning Commission and the City Council, with full public process, prior to the Airport making any additional binding offers for property in the City. The report is expected to take six to nine months to complete.

The City will accept a short-term study specific to Picard Circle if the Airport desires to acquire those homes in the 2009 Federal Fiscal Year. Such a study could be completed within a shorter period of time. It is expected that the FAA will fund 95% of the costs of all studies.

The voluntary nature of the Program should be highlighted and clearly stated as to intent. The statements from Mr. Searles and Mr. Flaherty made to the City Council on April 7, 2008 that the Airport would defer to the wishes of the City of South Burlington in any future land acquisitions should be made part of the Revision.

### 5.5 Land Uses with the Noise Exposure Map

Throughout this document, it needs to be very clear that when discussing land-use that the land in question is within the City of South Burlington and under South Burlington regulation. In the report "City" always refers to the City of Burlington.

### 6.0 Analysis

This section should be expanded to provide additional detail to the additional mitigation measures requested by the City, not just land acquisition and relocation. In particular, the statement in 6.1 that "Land acquisition and relocation is the only alternative that would eliminate the residential incompatibility" needs to be revisited in light of these comments. We are also uncertain why participants in the Program would be required to accept an avigation easement in order to participate in the program if property is being acquired fee simple?

What does the reimbursement to participants for "mortgage differential" mean? What do "replacement housing payments" consist of? The report states that financial assistance is available to the eligible relocatee to "Make up the difference, if any, between the amount paid for the acquired dwelling and the cost of an available comparable dwelling on the private market." What is the geographical area in which the "available comparable dwelling" can be located? If this language is read literally, no wonder residents wish to sell to the Airport.

Is the time estimated for acquisition procedures, including appraisals, closing, relocation and resale, at 40 person hours for each parcel near enough?

The "humanized boundary" is an excellent concept, with the actual boundary line to be recommended by the proposed study and approved by the South Burlington Planning Commission and the City Council. However, the language of the FAA Order 5100.38C states "....projects within the DNL 65 dB contour may be EXTENDED beyond the DNL 65 dB contour to include a reasonable additional number of otherwise ineligible parcels contiguous to the project area, if necessary to achieve equity in the neighborhood." This is the opposite of what our "humanized boundary" is intended to accomplish and its acceptance by the FAA should be clarified under federal rules.

The policy to schedule the acquisition of properties in generally contiguous areas at the same time is an appropriate and beneficial policy.

The study to be undertaken needs to make specific the general set of guidelines for acquisition contained on page 33. The first bullet point conflicts with the Airports stated intent to not acquire homes that are within the 65 dB contour but not included in the "humanized boundary". The final criterion is "within the 65dB contour in general." This needs to be amended.

The study should include a proposed "humanized boundary" with selection/exclusion criteria clearly defined for residents and a proposed schedule for acquisition for specific, identifiable properties based on Airport priority and funding availability. This will help property owners plan for the future. Please let us know which specific properties have been identified in 2010 and 2011 as shown in Table 4 and if any binding arrangements have been made with these property owners. The NCP should include a statement that a study is in progress and the results will be incorporated into the NCP at a later date.

An appeals process should be defined for property owners within the 65dB contour but outside the humanized boundary, whose property will not be purchased but who may wish to sell.

Specific impacts on public property, other educational property and religious institutions even if located outside the 65dB boundary should be reviewed if in the vicinity of the Airport.

### 6.1.4 Reuse of Acquired Land

The City agrees that the reuse of acquired land is a critical part of any plan and is an essential component of any land-use study.

### 6.1.5 Noise Barrier Analysis

The discussion is persuasive the noise barriers are not effective and could create a small isolated pocket of residential development that is detrimental to land-use planning. However, the use of berms and landscaping has other benefits that may not reduce the actual dB level, but can be effective psychologically or perception-wise in reducing the "industrial" aspect of the Airport to adjoining neighborhoods. The current state of Kirby Road properties, for example, does little to enhance the environment of the City.

### Property Tax Implications of acquired property

As the BIA acquires and removes property in South Burlington, the value of the property is deleted from the grand list increasing property taxes on residents and businesses in the city. To prevent this decrease in the grand list, the Airport could agree to increase the appraised value of the Airport under any tax stabilization contract by the appraised value of property taken off the grand list in the previous year

Finally, in general, many of the decisions made in the past regarding the NCP program have been approved solely by the Burlington City Council. While the governance of the Airport is a responsibility of Burlington City government, the impacts of decisions are felt more strongly in South Burlington (and Williston and Winooski.) The City of South Burlington needs to be more active in participation to represent the needs and goals of the City and its residents. Communications need to be formalized so that the City of South Burlington is aware of issues and decisions that affect the community. To this end, we recommend that included in the NCP is an obligation for the General Manager or the City's representative to the Airport Board to meet with the City Council on a quarterly basis, as part of the public session of a regular Council meeting, to update the Council on the implementation of the NCP. The Airport should have a sign-off sheet, if not formal approval, from the South Burlington City Council before filing any final NCP.

Thank you for the opportunity to comment on the Noise Compatibility Program Update.

Sincerely,

Chris Smith Chair South Burlington City Council This draft scope of for an "Airport Neighborhood Land Use Plan", dated March 31, 2008, was provided by the City of South Burlington to the Airport.

DRAFT Scope of Work
Airport Neighborhood Land Use Plan
March 31, 2008

Project Objective: To prepare a strategic plan addressing the short-, mediumand long-term land use and neighborhood character impacts of Burlington International Airport's acquisition program, with proactive strategies for planning, landscaping and phasing.

Background: Burlington International Airport, owned by the City of Burlington, lies wholly within the City of South Burlington and is South Burlington's single largest landowner. The Airport occupies roughly 1,500 acres or 14% of the City's land area. To the immediate west of the Airport's parking garage and passenger terminal is one of the city's oldest and most established single-family residential areas, known as "Airport Parkway." These smaller single-family homes, built principally in the years following World War II, represent some of the City's most affordable single-family housing stock and a very important, thriving neighborhood. Chamberlin Elementary School on White Street is located within a mile of the Airport and serves the neighborhood's children.

For several years, the Airport and City have been working together on scoping studies to extend and reconstruct Airport Drive from Williston Road to the Lime Kiln Bridge at Route 15. This plan, which includes a recreation path along with the reconstructed roadway, would affect several properties in the vicinity of the Airport. The reconstruction and extension scope has been approved by a VTrans, which has put the project schedule out roughly 7 to 10 years in the future. However, portions of the project could be completed incrementally through Airport and/or City initiative.

For roughly the past ten years, Burlington International Airport has been acquiring properties in the immediate neighborhood, principally along Airport Drive and Airport Drive Extension. These acquisitions have been done on a purely voluntary basis using FAA funds. Eligibility for the voluntary acquisition program is determined by a "Noise Exposure Study" that identifies residential properties likely to experience a certain average level of noise due to Airport activities. Noise exposure is determined by engineering studies and shown on "noise exposure maps" with contours representing the area within which residences would experience certain levels of noise. Presently, properties within the 70 dB "noise contour" can be acquired; the Airport is proposing to expand eligibility to those residences within the 65 dB noise contour, which includes a much larger area and roughly 79 additional houses.

As the acquisition program proceeds and expands, significant issues are arising relative to the loss of housing stock and physical/visual impacts on the neighborhood. Roughly two years ago, homes on Airport Drive extension were removed to provide space for Airport parking. More recently, the Airport

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## DRAFT Scope of Work Airport Neighborhood Land Use Plan March 31, 2008

purchased and then removed homes on Kirby Road. The Kirby Road removal, more than prior purchases, made a visual impact on the neighborhood and led to concerns over the potential scope and impact of the long-term acquisition plans. And, while the City does not have final authority to limit the acquisition program, the City does determine the zoning of the land; before residential properties can be converted to non-residential use, both the Planning Commission and the City Council must approve a zoning map amendment allowing such a transition.

With an updated Noise Exposure Study under final review, developing and agreeing to a long-term plan and strategy to mitigate effects of the acquisition program has become urgent. Airport objectives, City policy concerns, and neighborhood concerns need to be addressed through a planning process. The proposed scope of work below is intended as a framework for addressing these needs.

Study Area and Acquisition Plan: The study area, shown on the attached map, encompasses the sections of the Airport Parkway neighborhood that are within or near the "noise contour" boundaries. The Airport is seeking authority to acquire properties, on a voluntary basis, that lie within or are bisected by the 65 dB contour. The Airport's stated intent is to acquire roughly 10 homes per year within this contour. While some priority will be

### Proposed Scope of Work and Work Tasks:

- Prepare a base map at a large scale (roughly 1":40' or similar), along
  with reduced size versions, clearly indicating the current status of
  each parcel in the study area with respect to: ownership;
  occupancy; location relative to the proposed 65 dB and 70 dB noise
  contours; stated priority of the Airport for acquisition. Include clear
  identification of existing conditions in the study area, such as Airport
  parking areas, Chamberlin school,
- 2. Review the Airport Drive Extension Scoping Study (Dufresne-Henry, 2002); proposed Noise Study (HMMH, February, 2008) and the City's comprehensive plan and zoning for the Airport area. Research FAA regulations regarding options for the re-use of acquired property with different uses (e.g. parks and recreation, community facilities, multifamily housing, non-residential uses, etc.). Provide a brief summary of potential other land uses that could occupy the properties that have been vacated through the voluntary acquisition program.
- Prepare a base map and reduced copies (as in Task 1 above) of a map indicating areas of potential concern or opportunity in light of physical conditions (e.g. street network, connections to other

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## DRAFT Scope of Work Airport Neighborhood Land Use Plan March 31, 2008

properties, lot depth or configurations, etc.), ownership status, proximity to Airport properties, and priority for acquisition. Opportunity areas might, for example, be areas suited for park or recreation use; areas of concern would include those where the integrity of a neighborhood block or pedestrian connection could be compromised by acquisitions or alternative use. These maps will be used in a facilitated working session with the Planning Commission and public, to be held at the Chamberlin School or Airport. Any area of concern or opportunity noted should indicate how many existing housing units are involved. The preferred alignment for the Airport Drive Extension should be shown on all plans and maps.

- Prepare notes and summaries from the working session.
- 5. Based on the first working session, develop a second map and accompanying details illustrating potential strategies and future concepts for the areas of opportunity and concern. The details should include recommended landscaping, fencing or tree planting strategies and details for vacant lots. Other details may include, for example, concept sketches for neighborhood parks and open space; areas for potential re-development with allowable uses identified in task 2 above; or landscaping and planting concepts to mitigate noise and visual impacts. This plan also should make recommendations for any areas where acquisition and removal of housing would result in substantial impacts that would be especially hard to mitigate. Again, the map should identify the numbers of housing units that are affected in various sub-areas.
- The map and details from Task 5 will be used in a second working session with the Planning Commission and public, again to be held at the Chamberlin School or Airport.
- 7. Along with notes and summaries from the working session, prepare a recommended strategy map (same scales as above), clearly indicating any areas where acquisition is not recommended, and any areas with especially high potential for beneficial redevelopment/reuse, creation of neighborhood open space, re-vegetation, or other improvements and mitigation measures. Again, the recommended strategy map and summary must identify potential impacts on the number of housing units in the study area. The strategy plan should include appropriate details as outlined in Task 5 and a brief written summary.
- Conduct a final presentation with the Planning Commission and City Council, and make any final edits to the report and plan. The report

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## DRAFT Scope of Work Airport Neighborhood Land Use Plan

March 31, 2008 and plan should be provided to the City in pdf format, along with any GIS layers (ArcView 9.3 format) created for the project.

### Meetings

This scope anticipates three public work sessions, along with meetings with City and Airport staff.

### Schedule

This project is on an urgent schedule due to the Airport's need to file a final Noise Study by June 30<sup>th</sup>.

### Submittal

Please submit a letter format proposal including a schedule of personnel to be assigned to the project and the level of effort/hours for each, along with a total fee for the scope of work and a fee per extra meeting requested. PDF format e-mail submittals are welcome; however, proposers must call the Department of Planning & Zoning to ensure that proposals have been received successfully.

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### APPENDIX C MINUTES OF THE MARCH 25, 2008 PUBLIC WORKSHOP AND HEARING

The minutes of the March 25, 2008 Public Workshop and Hearing were prepared by Marianne Riordan, Professional Writing Services, Williston, VT 05495. Sign-in sheets, additional formatting, and name corrections were done by Harris Miller Miller & Hanson Inc.

# Burlington International Airport (BTV) Part 150 Noise Compatibility Program (NCP) Update Study Minutes from Public Hearing and Workshop March 25, 2008

BTV ADMINISTRATION: Brian Searles, Director of Aviation

Robert McEwing, Director of Planning & Development

CONSULTANTS: George T. Paris, President, Campbell and Paris Engineers

Ted Baldwin, Senior Vice President, HMMH David Crandall, Project Manager, HMMH James Ferguson III, Consultant, HMMH

### PUBLIC IN ATTENDANCE:

Sign in sheet is attached

### **OPENING REMARKS**

The public hearing was opened at 7 p.m. Brian Searles, Robert McEwing, and David Crandall gave a brief update on the results of the 1989 Noise Compatibility Program (NCP) which included a change in landing/take off patterns, the addition of a parallel taxiway for aircraft, and acquiring properties impacted by noise (within the 70 decibel contour and above) on a voluntary basis. The update of the NCP study will allow acquisition of properties impacted by noise to the 65 DNL (day/night average sound level) contour using funding from the FAA Noise Discretionary Fund. There are no arbitrary noise lines to break up neighborhoods. The boundary line has been adjusted ("humanized") to better follow streets/neighborhoods. Properties within the 70 decibel DNL will have the highest priority for acquisition followed by properties in the 'humanized' boundary to the 65 decibel DNL. Properties abutting airport owned land will be given preference for acquisition. Noise barriers were not carried forward in the current NCP update. It was found the barriers are effective within the first 100', but not out to the second, third, and fourth lot deep. Also, houses that benefited from the barriers would be considered noise mitigated and would not be eligible for the acquisition program. There will be discussion and decisions on barriers, shielding, and vegetation to maintain neighborhood boundaries as part of the land re-use program.

### QUESTIONS & COMMENTS FROM ATTENDEES AT THE PUBLIC HEARING *Is there a link to the study on the web?*

Copies of the study are available at the City of South Burlington Planning Office, Chittenden County Regional Planning, and the CCMPO. BTV staff will establish a link to the study from the airport's webpage. Comments from Julie Beth Hinds, South Burlington Planner, regarding the dashed boundary line shown on the map.

Julie Beth Hinds stressed the dashed red boundary line is a suggested noise boundary line by the City of South Burlington. The purpose of the line is as a starting point for discussion. South Burlington Planning Commission is very concerned about the impact on the character and quality of the neighborhood if the noise contour is expanded (i.e. how far back with the acquisition of houses before there is an impact on the neighborhood).

What is the number of residences not acquired within the dotted red line? Approximately 79 properties.

What is the time frame for acquiring properties?

That depends. If eight properties per year are acquired, then it will take 10 years to complete the acquisition of the properties within the DNL contour.

How is the noise level to be known in 2011?

The airport plan and Air Guard plan are used as guides. There is not a significant difference in the noise level as noted in the study done in 1997 and the study done in 2006. Noise level depends on the number of aircraft and the type of aircraft.

Is a house within the 65 contour but outside the 'humanized' boundary eligible for the program?

Effort was made not to divide neighborhoods, but to keep them intact. All properties at the 65 line and above are eligible. BTV will make a determination on acquiring a property and what is not going to be included. Residents have a say and can express their opinion. BTV will listen and then make a decision. BTV will make every effort to accommodate the property owner.

*Is aircraft expected to be quieter than the planes today?* 

The original plan was adopted at 70 decibel contour and above, but there were no funds to acquire properties within the 65 contour line. BTV is trying to meet the federal standard of 65 contour and above. This has been in effect since 1990. There will be quieter aircraft and engines, but more activity at the airport. It is a growing airport.

Will the value of my house go up or down? Will the value of my house be enhanced if it is located outside of the red dashed line?

The value of your house is market driven.

When I go to sell my house and the airport is there making noise will it impact the sale? Is the airport driving the market down?

People are buying houses in the neighborhood area all the time. BTV is paying a good price for acquired properties. The airport is not driving the value down.

Do I have to sell my house? If I do want to sell, but the program is booked until Year 2011 then what?

You do not have to sell your house (participation in the program is voluntary). BTV will look at priorities each year and try to accommodate participants. If the program is booked until 2011, then the next property would be included in the 2012 program. BTV is trying to present an opportunity to residents. The road project (road to be installed) does not impact the program.

Comment about the Air Guard planes making lots of noise compared to commercial aircraft.

Col. Doug Fisk explained the Air Guard is in the process of changing over planes. The new planes will still be F-16s. Ground noise is expected to be unchanged. The Guard flies 4,000 flight hours per year. This may increase up to 15% if pilots are added. The current situation is not expected to change for the next 10 years.

Comment about the use of after burners.

Col. Fisk explained the use of after burners is part of the pilot's training. From May to October pilots can make one low approach per flight to the airport. In the winter months more low approaches are allowed.

Comment about circling to burn off fuel.

Col. Fisk explained pilots would only be circling over the airfield to burn fuel if there is a safety issue involved, otherwise the planes fly over the lake. It is rare to have after burners on over the field. The Air Guard is very aware of the noise. Members live in the community.

Comment about windows rattling from the noise, grandson covering his ears inside the house due to the loud noise.

Col. Fisk stated the Air Guard recognizes there is an impact and tries to mitigate the noise the best it can.

Regarding re-use of property, will the properties be changed to commercial use? No. There will be a re-use plan which will include berms, barriers, plantings, possibly making a park. BTV will work with South Burlington Planning Office on a re-use plan.

Will the properties that are acquired be available for rental?

No. The properties cannot be used as residences if purchased with FAA funding because the acquisition was to mitigate noise exposure to the houses.

### QUESTIONS/COMMENTS AT THE WORKSHOP

Darling, 10 Marilyn Street and 385 & 405 White Street, South Burlington Mr. and Mrs. Darling asked about the contour line noting if they sell their properties the entire block is acquired. The consultants advised the airport may not have been fully aware of the ownership issues when the line was set, but it is probable the line could be moved to make sense. The line is just an opinion of BTV and South Burlington planners. Mr. Darling said he will contact Bob McEwing to discuss the matter. Mr. Darling also said he is tired of hearing the F-16s. The Darlings have lived in their current house since 1976 and have lived in the area nearly all their lives, witnessing the airport at start up,

being built. Commercial jets are not a bother. Mrs. Darling said the airport took her father's land by eminent domain for the runways.

A woman asked about the possibility of BTV purchasing her house in five years. The consultants advised the question should be asked of BTV directly, but there is a good chance BTV could work the property into the program.

A gentleman interjected it will take 10 years to acquire the properties.

The consultants clarified the study is showing where the noise exposure from the airport is expected to be located. The airport is not looking to aggressively reach that line. For those residents within the contour line who want to sell their property, the airport is willing to talk to you.

A woman asked what happens if all the houses on Dumont Street are sold and purchased by the airport, but one person does not want to sell for 20 years.

The consultants advised that would be the property owner's prerogative. If the rest of the houses are sold and there is only one lot left, the owner may want to sell. Eminent domain will not be used in this program. If there is another program and the land is in a different class, then that could change the acquisition.

James and Lucy Kirk, 12 Picard Circle, South Burlington

James Kirk stated for the record that they are looking for an offer from the airport.

Speaking for the rest of the residents on Picard Circle, Mr. Kirk said the feeling is the same. Mr. Kirk said they addressed the South Burlington City Council and told them they do not want them to block or delay this. We want to move on with our lives and are in limbo. We could not put our house on the market and expect to sell, said Mr. Kirk.

There were no further comments. The public hearing/workshop concluded at 8:40 p.m.

RScty:MERiordan

	BURLINGTON INTERNATIONAL AIRPORT PUBLIC WORKSHOP and PUBLIC HEARING DATE: March 25, 2008 - 7:00pm LOCATION: HAMILTON ROOM, SECOND LEVEL, 1200 AIRPORT DRIVE, SOUTH BURLINGTON SIGN-IN SHEET		
#	NAME	COMPANY NAME/ADDRESS	PHONE NUMBER/EMAIL ADDRESS
1	Drug & Lmda Burbo		
2	Gran Burbo		
3	Laure Desso		
4	Wola M. Desse		
5	Charles & Claudette Tabault	6 Ficard Circle 5. Builington Vt	802-863-9726
6	Gordon & Susan LAMAY	8 PicARel Circle So Bwelington	802-862-594
7	michael + mechelle Henry	4 Picard Circle	864-0407
8	WATNE + BEU DARLING	10 MARY AND ST	5002 508
9	James Hung Kirts	12 Privard Circle	(.59-2220)
10	Michael Lors Willette	76 Dumontava,	862-9953

BURLINGTON INTERNATIONAL AIRPORT PUBLIC WORKSHOP and PUBLIC HEARING DATE: March 25, 2008 - 7:00pm LOCATION: HAMILTON ROOM, SECOND LEVEL, 1200 AIRPORT DRIVE, SOUTH BURLINGTON SIGN-IN SHEET			
#	NAME	COMPANY NAME/ADDRESS	PHONE NUMBER/EMAIL ADDRESS
11	Donva Kinville	11 S. Henry Ct	862-5238
12	Douz + Robertal Tupont		658.8200
13	Cerenalet Legenda Ench	53 North Henry CT-	864-7780
14	Doug Fick	53 North Henry CT- 158 Fighter Wing	660-5215
15	She Almil	city of So Burl.	
16	Juli Both Hands	City of Builing ton	846-4106
17	( Idaller	S.B. planz Com	658-1866
18	Tom STICH	1261 ATAPONT DA.	80-7189
19	Burt Proof	3 MARYLAND ST	862-2215
20	Adamur.ght	158 FW/ Env. Mgr.	660-5966

BURLINGTON INTERNATIONAL AIRPORT PUBLIC WORKSHOP and PUBLIC HEARING DATE: March 25, 2008 - 7:00pm LOCATION: HAMILTON ROOM, SECOND LEVEL, 1200 AIRPORT DRIVE, SOUTH BURLINGTON SIGN-IN SHEET			
#	NAME	COMPANY NAME/ADDRESS	PHONE NUMBER/EMAIL ADDRESS
21	Margaret Palombo	34 Myres Ct S.B. VT	20240864 -9662
2	Jory OAU'S	so Burl V4-	802 862.7544
3	Dog Own	5 & Buldows Own	86 35311
4	Sandu Dosley		dooley+10 comeas
5	NARCTE BEAUXU	COMMISCON	
	Col, Rob Gingras	791 NATIONAL GP. RD. Colchark, VI	802-338-3041 Puber 1. gingnes @ gued. state. vt. us
27	Chris Shew	S.B. PLANNING COMMISH	864-1515
28	TIM MIT	11	802 872-8501
29	Steve BARRETT Judith NOLAN	51 S. Henry ct	802-864-6393
30	John Haselton	50 S. Herry ct	862-3310

BURLINGTON INTERNATIONAL AIRPORT PUBLIC WORKSHOP and PUBLIC HEARING DATE: March 25, 2008 - 7:00pm LOCATION: HAMILTON ROOM, SECOND LEVEL, 1200 AIRPORT DRIVE, SOUTH BURLINGTON SIGN-IN SHEET				
#	NAME	COMPANY NAME/ADDRESS	PHONE NUMBER/EMAIL ADDRESS	
31	Nick Santo	North Ramp Aviation	802-865- 4366	
32	Nich Santo Hrather Kadras	BTV		
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HMMH 301321.005

	BURLINGTON INTERNATIONAL AIRPORT PUBLIC WORKSHOP and PUBLIC HEARING DATE: March 25, 2008 - 7:00pm LOCATION: HAMILTON ROOM, SECOND LEVEL, 1200 AIRPORT DRIVE, SOUTH BURLINGTON SIGN-IN SHEET				
#	NAME	COMPANY NAME/ADDRESS	PHONE NUMBER/EMAIL ADDRESS		
41	Chad Phillps	7 Maryland Str.	865 9561 candtperverizonment		
42	Dandi Purce	72 Dumont Que	658-4794 sandra pierce 2050 h		
43	Joseph + Jemoja Bortfurl	35 S. Henry Ct.	362-2105 JBouffard 50 ad . com		
44	Sym Fit	e 333 Van Sicklen 1 So. Burtington	658-6743		
45	Jean Chaulot	27 Myers Ct	chaulot @yahow.com		
46	Bell miki Grady	61 Dumont are	864-7215		
47					
48					
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# $\label{eq:appendix} \textbf{APPENDIX B}$ $\mbox{FAA RECORD OF APPROVAL} - 2008 \ \mbox{NCP MODIFICATION}$



## Memorandum

Date:

June 19, 2008

From:

Richard Doucette, Environmental Protection Specialist

To:

LaVerne Reid, Airports Division Manager

John Donnelly, Regional Counsel's Office

Subject:

Burlington International Airport, Part 150 Record of Approval

Attached is the Draft Record of Approval for the Noise Compatibility Program developed by Burlington International Airport. Only one new measure was under consideration. The prior Part 150 Noise Compatibility Program recommended acquisition of residences within the 70DNL contour. This new measure allows for land acquisition within the 65DNL contour.

No written comments were received during the FAA comment period.

In conformance with Regional and National procedures, AEE-1 has reviewed the draft Record of Approval and has no national policy concerns; and APP-400 has concurred with the draft Record of Approval. As soon as your concurrence is obtained, the Federal Register Notice on FAA's approval of the Noise Compatibility Program can be submitted.

John Donnelly

Regional Counsel, ANE-7

6/23/08

Date

Concur

N

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La Verne F. Reid

Airports Division Manager

Data

Approved Disapproved

### RECORD OF APPROVAL

## Burlington International Airport, South Burlington VT

## FAR Part 150 Noise Compatibility Program

### INTRODUCTION

The Burlington International Airport sponsored an Airport Noise Compatibility Planning Study under a Federal Aviation Administration (FAA) grant, in compliance with Federal Aviation Regulation, Part 150. Burlington produced a report entitled "Burlington International Airport, 14 CFR Part 150 Update, Noise Compatibility Program Update". The Noise Compatibility Program (NCP) was submitted to FAA for review and approval on April 23, 2008. The Noise Exposure Maps were determined to be in compliance in November 2006. That determination was announced in the Federal Register on November 17, 2006.

The study focused on one administrative measure to improve compatibility between airport operations and community land use. This one measure under consideration is the acquisition of homes within the 65dB DNL contour. Burlington International Airport's most recent Noise Compatibility Program (approved September 21, 1990) recommended land acquisition within the 70dB DNL noise contour. This change will allow more incompatible land use to be converted to compatible land use, through voluntary land acquisition.

The approvals listed herein include approvals of actions that the airport recommends be taken. It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements. Approval does not constitute a commitment by the FAA to financially assist in the implementation of the program nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA. Eligibility for federal funding of measures that are determined in this Record of Approval to meet the approval criteria of 150.33 will be determined at the time the FAA receives an application for funding, using the criteria in the most current version of FAA Order 5100.38, Airport Improvement Program Handbook.

The program measures below summarize as closely as possible the airport operator's recommendations in the noise compatibility program and are cross-referenced to the program with page numbers that follow the title of each measure. The statements contained within the summarized program measures and before the indicated FAA approval, disapproval, or other determination, do not represent the opinions or decisions of the FAA.

#### **EXISTING NOISE COMPATIBILITY PROGRAM**

The prior NCP, developed in the original (1987-1990) Part 150 study, includes a mix of operational, implementation, and land use elements. While this update addresses only a revision to a single NCP measure, this NCP and Record of Approval provide a summary of the entire program to provide context. All measures recommended for implementation in 1989 were approved in 1990 and remain in effect, with the one revision resulting from this Program Update.

## **Airport Operations Measures**

## 1. Extension of Taxiway G (pg 13)

Taxiway G would be extended from the existing intersection with Taxiway A to Taxiway C, remaining parallel with Runway 15/33 in order to reduce noise levels for residents along Airport Drive.

Status: Not yet implemented. The FAA has approved the extended Taxiway G at the planning level and it is shown on the updated 2006 Airport Layout Plan; the City has scheduled it for completion sometime after the 2011 planning horizon of the accepted NEM.

## 2. Terminal Power Installation and APU/GPU Restrictions (pg 13)

Installation of terminal power hookups for aircraft would reduce the need for aircraft to use internal auxiliary power units (APU) or ground power units (GPU). Following the installation, a rule prohibiting the use of APUs or GPUs between 10:00 p.m. and 7:00 a.m., would be put in place.

Status: Not fully implemented. The Airport terminal has "aircraft ground power" (referred to as "terminal power hooks" in the ROA and the 1989 NCP document) capability at nine gate locations that have passenger boarding bridges. Eight of the passenger gates - 3, 4, 5, 6, 11, 12, 14, and 15 are airport owned and available to any aircraft that uses these gates. Gate 8 has ground power that is owned and operated by United Airlines.

## 3. Nighttime Bi-direction Runway Use (pg 13)

To minimize late-night operations over the City of Winooski, the air traffic control tower would use Runways 15 for departure and Runway 33 for arrivals, traffic conditions permitting. Status: Not implemented. The BTV ATCT is closed from 10:00 PM until 5:00 AM, which makes implementation of this measure infeasible during these hours. The ATCT has not implemented the procedure during the remaining "nighttime" hours, from 5:00 to 7:00 AM.

4. <u>Noise Abatement Flight Paths for Runway 15 and 33 Departures, and 15 Arrivals</u> (pg 14) New procedures would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees.

Status: Not fully implemented. Current procedures involve assignments that result in: (1) most west-bound Runway 15 departures making initial turns to a heading of 190, (2) most west-bound Runway 33 departures maintaining runway heading until past the City of Winooski, and (3) most east-bound Runway 33 departures initiating right hand turns over Winooski.

### 5. Voluntary Limits of Military C-5A Training (pg 14)

An informal agreement with the military limits C-5A operations to only necessary takeoffs and landings.

Status: Implemented. This informal agreement continues in place. BTV Operations strongly discourages C-5 training at the airport, because the runways are only 150 feet wide and wake turbulence from C-5 operations tear up the runway-edge lighting.

### 6. Voluntary Minimization of F-16 Multiple Aircraft Flights (pg 14)

Military personnel will schedule as many single-aircraft, as opposed to multiple-aircraft, flights as possible.

Status: Not fully implemented. Based on observations during data collection for this study, F-16s in multiple aircraft flights typically operated with some distance between individual aircraft, so that the aircraft do not produce their maximum noise levels at the same locations at the same time; while aircraft are operating close in time, they are not simultaneous in most cases.

## 7. Voluntary Army Guard Helicopter Training Controls (pg14)

The National Guard helicopter training operations will be conducted away from the airport when conditions permit. In terms of long range planning, the Guard should consider consolidating operations at Camp Johnson.

Status: Not implemented. The National Guard has continued training operations at BTV.

## Monitoring and Review Elements

## 8. Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status (pg 14)

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP. This measure also included the recommendation of the Technical Advisory Committee as a Noise Abatement Committee and purchase of a permanent noise monitoring system. Status: Not implemented. The City of Burlington updated its NEM in 1997 and 2006. This documentation represents the first NCP update.

## 9. Flight Track Monitoring (pg 15)

Utilize an outside firm to perform flight track analysis of radar data on a temporal sampling basis.

Status: Not implemented. Flight tracks for the 2006 NEM were developed from information provided by the Air National Guard, the 1997 NEM update, and interviews with FAA ATCT staff.

#### Land Use Measures

The City will use the 2006 and 2011 NEM contours to the extent that the following land use measures require definition of eligibility and implementation areas. The City will continuously monitor conditions affecting NEM validity, to determine when and if the contours require revision to reflect changes in the adequacy of the NEM contours.

## 10. Land Acquisition and Relocation (pg 15)

Incompatible land use includes mobile homes within the 65 dB DNL contour and residences within the 70 dB DNL contour. A purchase and relocation program would be voluntary and comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. Status: Implemented. There are no mobile homes within the 65 dB DNL contour. The City has purchased some, and is in the process of purchasing additional, permanent residences in the 70 dB DNL contour. The City proposes to change this element to include residences in the 65 dB DNL contour, as described at the end of this document.

## 11. Sound Insulation (pg 15)

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 sound insulation program.

Status: Not implemented. As discussed in Section 3.3.1 of the NCP document, the City has chosen to apply available funding to land acquisition.

## 12. Easement Acquisition Related to Soundproofing (pg15)

The City would attempt to negotiate avigation easements within the 65 dB DNL contour, in return for sound attenuation assistance.

Status: Not implemented. The City has chosen to apply available funding to land acquisition within the 70 dB DNL contour interval prior to providing treatment to homes in the 65-70 dB DNL contour interval.

## 13. Airport Zoning Overlay District (pg15)

Land use measures that would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation.

Status: Not implemented. Although a formal Airport Zoning Overlay District has not been adopted, the City of South Burlington has actively worked to consider airport noise when addressing land-use decisions around the airport.

## 14. Easement Acquisition for New Development (pg 16)

Easements above would be obtained for new development within the 65, 70 and 75 dB DNL contours.

Status: Not implemented.

### 15. Real Estate Disclosure (pg 16)

A real estate disclosure policy would be developed for land uses within the 65 dB DNL contour, and implemented through revisions to zoning ordinances.

Status: Not implemented. The Airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour but will be working with the City of South Burlington and the City of Winooski in that regard.

### RECOMMENDED NOISE COMPATIBILITY PROGRAM REVISION

This NCP update proposes modification of one existing NCP element, as described below.

## Land Acquisition and Relocation (pg 17)

The City of Burlington proposes to modify the existing Land Acquisition and Relocation Program (Land Use measure #10) to expand eligibility to the 65 dB DNL contour. This program is voluntary. Eligible property owners will be paid fair market value for their property at its highest and best rate, and provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the "Uniform Act") and implementing Department of Transportation (DOT) regulations. The City, in coordination with the applicable jurisdiction, will conduct studies to define program boundaries and to identify options for compatible reuse of the acquired properties.

The City, and the jurisdiction within which the program is implemented, will develop a land use plan for the area surrounding the airport that is impacted by noise. This effort will follow the guidance contained in the FAA document "Management of Acquired Noise Land: Inventory Reuse Disposal" dated January 30, 2008, or later superseding documents.

FAA Action: Approved.

## APPENDIX C FAA NOTICE OF ACCEPTANCE – 2013/2023 NEM



4910-13

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

Noise Exposure Map Notice

**Burlington International Airport** 

South Burlington, Vermont

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice.

SUMMARY: The Federal Aviation Administration (FAA) announces its determination that the noise exposure maps for Burlington International Airport, as submitted by the City of Burlington, Vermont, under the provisions of Title I of the Aviation Safety and Noise Abatement Act of 1979 (Pub. L. 96-193) and 14 CFR Part 150, are in compliance

with applicable requirements.

EFFECTIVE DATE: The effective date of the FAA's determination on the noise exposure maps is September 26, 2019.

FOR FURTHER INFORMATION CONTACT: Richard Doucette, Federal Aviation Administration, New England Region, Airports Division, 1200 District Ave., Burlington, Massachusetts 01803.

SUPPLEMENTARY INFORMATION: This notice announces that the FAA finds that the noise exposure maps submitted for Burlington International Airport are in compliance with applicable requirements of Part 150, effective September 26, 2019.

Under Section 103 of Title I of the Aviation Safety and Noise Abatement Act of 1979 (hereinafter referred to as "the Act"), an airport operator may submit to the FAA noise exposure maps that meet applicable regulations and that depict non-compatible land uses as of the date of submission of such maps, a description of projected aircraft operations, and the ways in which such operations will affect such maps. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport.

An airport operator who has submitted such noise exposure maps that are found by FAA to be in compliance with the requirements of 14 CFR Part 150, promulgated pursuant to Title I of the Act, may submit a noise compatibility program for FAA approval that sets forth the measures the operator has taken, or proposes, for the introduction of additional non-compatible uses.

The FAA has completed its review of the noise exposure map and related descriptions submitted by the City of Burlington, Vermont. The specific maps under consideration were "Figure 12, 2018 Existing Conditions Noise Exposure Map" on page 39 and "Figure 13, 2023 Forecast Conditions Noise Exposure Map" on page 41 in the submission. The FAA has determined that these maps for Burlington International Airport are in compliance with applicable requirements. This determination is effective on September 26, 2019.

FAA's determination on an airport operator's noise exposure maps is limited to a finding that the maps were developed in accordance with the procedures contained in Appendix A of Part 150. Such determination does not constitute approval of the applicant's data, information or plans, or a commitment to approve a noise compatibility program or to fund the implementation of that program.

If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a noise exposure map submitted under Section 103 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise exposure maps to resolve questions concerning, for example, which properties should be covered by the provisions of Section 107 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA's review of a noise exposure map. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator that submitted the map or with those public agencies and planning agencies with which consultation is required under Section 103 of the Act. The FAA has relied on the certification by the airport operator, under Section 150.21 of Part 150, that the statutorily required consultation has been accomplished.

Copies of the noise exposure maps and of the FAA's evaluation of the maps are available for examination at the following locations:

Burlington International Airport 1200 Airport Drive #1 South Burlington, Vermont 05403

Federal Aviation Administration

New England Region, Airports Division

1200 District Avenue

Burlington, Massachusetts 01803

Questions may be directed to the individual named above under the heading:

FOR FURTHER INFORMATION CONTACT

Issued in Burlington, Massachusetts on September 26, 2019.

Richard P. Doucette

Environmental Program Manager

FAA New England Region, Airports Division

# APPENDIX D PUBLIC CONSULTATION MATERIAL



**Technical Advisory Committee** 



# BTV NCP TAC Meeting #1 October 17, 2017

## **BURLINGTON INTERNATIONAL AIRPORT**

# Technical Advisory Committee - Sound Program, NCP Update DATE: October 17, 2017

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
14	OHRIS TUNIONIEZ	VT ANG	802-338-5584 CHENTOPHER. A. TUMILOUILE, MIL @ANG. AF. MIL
15	SETH BOWDEN	6B1 C	setheverment-org
16	CHARLIE BAKER	CCRPC	chake- Occrpcutions
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19	KEVIN DORN	SONTH BURLINGTUM	846-4107 1(DORNO SBURL GOM
20	PAUL CONNER		846-4106 pconveres60H.
21	REDOCH MAILE	So FULL	218-8100 LASTEXITACCOUCUST AM
22	amanda Clayton	BTV	338 8106 aclayton@btv.aevo
23	Gene Righards	BTV	343-9909 grichards@btv.aevo
24			
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Please note that this sign-in sheet and any information provided on it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.

## **BURLINGTON INTERNATIONAL AIRPORT**

Technical Advisory Committee - Sound Program, NCP Update DATE: October 17, 2017

LOCATION: Burlington International Airport, Conference Room #3

SIGN-IN SHEET

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2 Vistre Mobbey CCV (CSY-OS3)  13 Robins & Theman FAA (BY-657-440)  4 THE MICCOLE HERITAGE AVIATEN TIMECOLE GENERAL CO.  5 John Johnston VT ARNU Johnston Included Marining Box 654-2211  6 Parank Godiner Shirt College Pratitive Societies College Pratitive Shirt Exert So.  8 Chronine Sargent So. Buy I. Cournine Complexion that  9 Steve Hisloski South Burlington Swisleshie Soschools net  7 Time Mokenzie SBBA Timesentharly Energy Science St.  10 Nic Longo DTV  11 Time Mokenzie SBBA Timesentharly Energy Science St.  12 Dessae Rocka In 10000061 802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410  802-655-10-410	1	Kichard Lizzari	VTNAtional Guard	338-3424	
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Please note that this sign-in sheet and any information provided on it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.



## **AGENDA**

## BTV Noise Compatibility Program (NCP) Technical Advisory Committee Meeting

October 17, 2017

5:00 p.m. - 6:30 p.m.

Conference Room 3

Call in # for those who are unable to attend: 712-432-3100 Code: 235681

5:00 – 5:10	Welcome, overview and purpose of technical advisory committee (TAC)
5:10 – 5:20	Review June 2017 open house
5:20 – 5:35	Public forum and comment period
5:35 – 6:05	Review Draft NCP Table of Contents and Chapter 1 - overview, purpose, and guidelines
6:05 – 6:10	Overview of existing NCP – Chapter 3
6:10 – 6:15	Overview of avigation easements
6:15 – 6:30	Technical advisory committee questions and comments





**BTV Noise Compatibility Program Update – Technical Advisory Committee** 

October 17, 2017



## **Introductions**

- City of Burlington airport owner
- Consultant team
  - Jones Payne Group (JPG)
  - HMMH
- Technical advisory committee (TAC) members

## **TAC Committee Organizations**

## **Participating**

- Army Guard (verify)
- Burlington Airport Commission
- Burlington International Airport
- Chittenden County Regional Planning Invited
   Commission (CCRPC)
   Cit
- City of South Burlington
- City of Winooski
- Community College of Vermont
- Essex Junction
- FAA (Air Traffic Manager)
- FAA (New England Regional Office)
- Greater Burlington Industrial Corporation (GBIC)
- Heritage Aviation (FBO)
- South Burlington School District
- St. Michael's College
- Town of Essex

- Town of Williston
- VTANG
- Winooski School District

## City of Burlington

- Town of Colchester (verify)
- Town of Hinesburg (verify)
- Town of Richmond
- Town of Shelburne (verify)



# **Agenda**

- Welcome, overview and purpose of the TAC
- Feedback from the June public open house
- NCP table of contents review
- NCP Ch. 1 Introduction
  - Purpose
  - Part 150 Overview and History
  - Roles and Responsibilities
  - Land Use Compatibility
  - FAA Noise Compatibility Program Checklist
- Avigation easements
- Anticipated schedule



# **Purpose of the Technical Advisory Committee**

- The TAC is advisory to the City solely for purposes of the BTV Part 150
   Study, including
  - Review of study inputs, assumptions, analyses, documentation, etc.
  - Input, advice, and guidance related to Noise Compatibility Plan (NCP) development
- TAC members are expected to provide two-way communication between the City and their organizations / constituents
- TAC members represent the interests of their organization and/or constituents
- The City shall respect and consider TAC input, but must retain overall responsibility for the Part 150 Study and NCP recommendations
- The TAC and City recognize FAA is responsible for accepting Noise Exposure Map (NEM) and NCP submissions and for approving NCP measures



## **Public Forum and Comment Period**



# Feedback from the public open house

NCP Open House held at Airport Mezzanine on June 14, 2017 from 6 – 8pm

Attendance of approximately 100 community members (52 signed in)

Discussions were framed at the three stations to discuss various elements of the Part 150 programs:

- Part 150 History
- NCP goals and options
- NCP potential land use measures

Generally community members were interested in:

- Learning where their homes fall in current contours and what the future contours may look like
- What programs may be available to them in the future and the time frame for those programs



# Feedback from the public open house

The community expressed interest in:

- Continuing land acquisition or sales assitance/purchase assurance, general feedback that the F35 was going to cause too much noise to remain in neighborhood
- Starting sound insulation as soon as possible, including interest in prioritizing the Chamberlin School, expressing that the community wants to remain in the current neighborhood

The community expressed that they would not want to see implemented:

 A long range land acquisition program, extension of the current land acquisition program

Community members provided equal interest towards land acquisition ending and extending to include their properties. Most were in favor of sound insulation, and those that were interested in land acquisition were intrigued by the idea of sales assistance/purchase assurance as a second option.



# NCP Document – Draft outline

- Chapter 1
  - introduces the purpose of the Part 150 NCP Update and provides an overview
- Chapter 2
  - accepted Noise Exposure Maps (NEMs) and land use information
- Chapter 3
  - describes the existing NCP and approved measures
- Chapter 4
  - presents the new recommended measures to the BTV NCP
- Chapter 5
  - presents the analysis of NCP measures
- Chapter 6
  - describes public consultation



# **Chapter 1: Introduction – Overview**

- Regulatory framework
  - Aviation Safety and Noise Abatement Act (ANSA, 1979)
     authorized FAA to regulate noise compatibility planning
  - Regulation established as 14 CFR Part 150
  - Participation is voluntary, but is the primary means by which airports can obtain FAA support, including funding, for noiserelated projects
- When can it be updated? What triggers updates?
  - NEM
    - A change in the operation of the airport would establish a substantial change non-compatible use
  - NCP
    - Changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP
    - Meets the needs of the airport and the community.



BMD1

fpr NEM/NCP triggers - from the 2015 NEM document. Second bullet under NCP "Meets the needs of the airport and the community" is not in the official NCP, but the language is in the 2015 NEM, Chapter 1, Section 1.2 Recommendations Bradley M. Dunkin, 10/3/2017

# Chapter 1: Introduction – Overview

- Historical perspective why is BTV updating the NCP?
  - Current NCP approved by FAA in 2008
  - Current program includes voluntary acquisition of the most affected properties and relocation of residents
  - City of Burlington and other municipalities wish to pursue mitigation measures beyond land acquisition
  - FAA support of new measures requires approval of an updated NCP
- The goal of this NCP update is to provide additional options, beyond land acquisition, that reduce noncompatible land use within the regulatory framework of Part 150





# **Chapter 1: Introduction – 14 CFR Part 150**

- Title 14 of the Code of Federal Regulations Part 150 (Part 150)
   "Airport Noise Compatibility Planning"
  - Sets forth standards for airport operators to use in
    - documenting noise exposure around airports and
    - establishing programs to minimize noise-related land use incompatibilities.
  - Provides airports with technical and procedural guidance
  - One component of determining eligibility for federal noise abatement funds
- The FAA oversees the Part 150 process on behalf of the federal government.



11/9/2015 workshop, slide 3 David A. Crandall, 10/2/2017 DAC4



# **Chapter 1: Introduction – 14 CFR Part 150**

- Voluntary FAA-defined process for airport noise studies
- Two major components
  - Noise Exposure Map (NEM) FAA "accepts"
    - Detailed description of airport layout, operations, noise exposure, land uses, and noise/land use compatibility for the study year and a forecast year
  - Noise Compatibility Program (NCP) FAA "approves" individual measures
    - Noise abatement measures to reduce noise exposure
    - Land use mitigation measures to address existing non-compatible uses
    - Land use control measures to prevent new non-compatible uses
  - This study is an NCP update only, based on the 2015 NEM
- Public involvement is a critical consideration
  - Consultation is required with users and land use control jurisdictions
  - Input is sought from all interested parties



11/9/2015 workshop, slide 4 David A. Crandall, 10/2/2017 DAC5



# **Chapter 1: Introduction – BTV Part 150 History**

- 1990 (March) FAA accepted NEM for 1989 and 1993 conditions
- **1990 (July)** FAA approved NCP in July 1990
- **1997 (June)** FAA accepted NEM update for 1997 and 2002
- 2006 (November) FAA accepted NEM update for 2006 and 2011
- 2008 (June) FAA approved NCP revision
- 2015 (December) FAA accepted NEM update for 2015 and 2020
  - Currently the "official" NEM on file with FAA
- Tonight's meeting represents the first Technical Advisory Committee meeting of the current NCP update



Update of 11/9/2015 workshop, slide 8 David A. Crandall, 10/2/2017 DAC1

## Chapter 1: IntroductionRoles and Responsibilities

- City of Burlington, VT
  - Airport owner and operator
  - Responsible for conducting the NCP analysis, submitting for approval, and implementing approved measures
  - Consulting team retained to conduct technical work and prepare documentation related to the NCP process
- Federal Aviation Administration (FAA)
  - Determines whether the NCP process has met Part 150 requirements
- Technical advisory committee (TAC)
  - Provides representation for stakeholder organizations, including local jurisdictions, airlines, local business interests, the FAA, and the BTV Sound Mitigation Committee (SMC)





## **Chapter 1 – Sound Terminology**

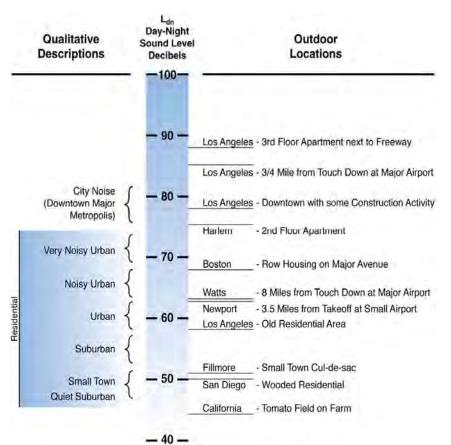
- A-weighted decibel (dBA)
  - Reflects the manner humans hear different pitches of sound
  - All federal agencies have adopted dBA for environmental studies
- dBA can be used for different units of measure, like maximum and average
- Day–Night Average Sound Level (DNL or Ldn)
  - Cumulative sound measure
  - Equal to steady level that contains same energy as the actual time-varying sound
  - Increases sounds from 10 p.m. to 7 a.m. 10-fold
  - Used by all federal agencies that deal with aviation noise

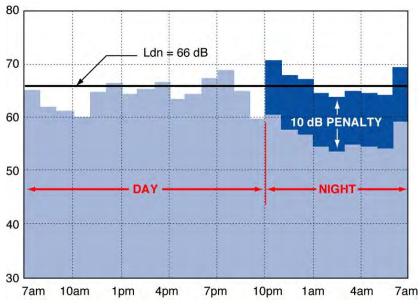


11/9/2015 workshop, slide 7 David A. Crandall, 10/2/2017 DAC2



## **Chapter 1 – Sound Terminology**







11/9/2015 workshop, slide 7 David A. Crandall, 10/2/2017 DAC3

## Chapter 1: IntroductionLand Use Compatibility

- 14 CFR Part 150 provides guidelines (Appendix A, Table 1) for compatibility based on categories of land use:
  - Residential Use
  - Public Use
  - Commercial Use
  - Manufacturing and Production
  - Recreational
- Note: All land uses are considered compatible by Part 150 if exposed to an annual-average Day-Night Average Sound Level (DNL) of less than 65 dB
- Complete table reproduced in Chapter 1



# Chapter 1: IntroductionLand Use Compatibility

Land Use	DNL <65 dB	DNL 65-70 dB	DNL 70-75 dB	DNL > 75 dB
Residential	Compatible	Incompatible (1)	Incompatible (1)	Incompatible
Mobile home park	Compatible	Incompatible	Incompatible	Incompatible
Transient lodgings	Compatible	Incompatible (1)	Incompatible (1)	Incompatible (1)

(1) Measures required to achieve 25 to 30 dB of noise level reduction for aircraft noise from outside to inside. "Transient lodgings" include, but not limited to, hotels and motels



# Chapter 1: IntroductionLand Use Compatibility

Land Use	DNL <65 dB	DNL 65-70 dB	DNL 70-75 dB	DNL > 75 dB
Schools	Compatible	Incompatible (1)	Incompatible (1)	Incompatible
Hospitals and nursing homes	Compatible	25	30	Incompatible
Churches, auditoriums and concert hall	Compatible	25	30	Incompatible

<sup>(1)</sup> Measures required to achieve 25 to 30 dB of noise level reduction for aircraft noise from outside to inside. "Transient lodgings" include, but not limited to, hotels and motels



## Chapter 1: IntroductionFAA Part 150 Checklist

- Provides a list of items to review before submitting the NCP to the FAA
  - Submission contents
  - Consultation, including public participation
  - Noise exposure maps
  - Consideration of alternatives not submitted for approval
  - Alternatives recommended for implementation
  - Provision for revision of documents



## **Chapter 3: Existing NCP - Overview**

- Operational measures
  - Airport infrastructure
  - Flight paths, runway use
  - Voluntary actions
- Monitoring and review
  - Review status of NEM and NCP and update if changes warrant
  - Flight track monitoring: review of flight radar data
- Land use measures
  - Voluntary land acquisition
  - Sound insulation
  - Easements
  - Real estate disclosures.



## **Avigation Easements**

- Avigation Easements are a legal document between the owner and the Airport Sponsor that is conveyed in exchange for something of value.
- Easements acknowledge:
  - The right of aircraft flight over or near a property
  - May also include the light, emissions and other items
  - May also include prohibition of obstructions (trees, towers)
- Can be give in exchange for noise mitigation such as:
  - Sound Insulation
  - Land Acquisition
- Can be in exchange for a monetary sum which is determined by:
  - Previously determined lump sum or
  - Percent of appraised fair market value
  - Must method and or value must be approved by FAA



- Easements are attached to the property and continue with the land after the sale of a home
- Easements deem as a compatible land use under Part 150
- Provides disclosure to future owners
- Examples of easements utilized in New England are provided in your handouts for review.
- Easement and the recommended language will be discussed at the next TAC meeting.

## **Avigation Easements**

#### EASEMENT

THIS EASEMENT made this \_\_\_\_\_day of \_\_\_\_\_\_, 2016, by and between \_\_\_\_\_of New Haven/East Haven, Connecticut, and their successors or assigns hereinafter referred to as the "Grantor(s)", and Tweed-New Haven Airport Authority, a public instrumentality and political subdivision of the State of Connecticut created under Connecticut General Statutes Sec. 15-120g et seq., as amended, hereinafter referred to as the "Grantee".

#### WITNESSETH:

WHEREAS, Grantee is charged with the management and operation of Tweed New Haven Airport; and

WHEREAS, certain real property is owned by Grantor(s), in fee simple, commonly known as **Address**, **City**, Connecticut and more particularly described in Exhibit A attached hereto and made a part hereof, and referred to as the "Property";

WHEREAS, the Property meets certain interior noise level criteria and lies within certain noise zones commonly referred to as those areas above Day Night Average Sound Level of 65 decibels, as depicted on the Official Noise Contour Map of the Airport ("2017 Future DNL Contour") dated November, 2012 and available for review and inspection at the Airport's administrative offices, 155 Burr Street, New Haven, CT 06512; and

WHEREAS, Grantee is offering a residential sound insulation program for the Property to reduce aircraft noise experienced by Grantor(s) in the interior of the structure located on the Property; and

WHEREAS, Grantor(s) have elected to receive, and Grantee has agreed to provide, sound insulation on the Property, more particularly described in Schedule 1 attached hereto and made a part hereof; and

NOW THEREFORE, for valuable consideration, receipt of which is hereby acknowledged by Grantor(s), Grantor(s) hereby grant and convey and assign to Grantee, a perpetual easement more particularly described as follows:

1) The real property subject to the grant of easement hereinafter described is an airspace parcel ("Airspace Parcel") above the surface of the Property having the same boundaries as the Property and extending from the surface upwards to the limits of the atmosphere.



## **TAC Preliminary Topics and Schedule**

## TAC Meeting 2

December 5, 2017

NCP Ch. 2 – accepted NEM
Updated land use inventory
NCP Ch. 3 – Existing NCP approved measures
Easements
Updated land use inventory

## TAC Meeting 3

January 2018

NCP Ch. 4 - Part 1

- Airport operation measures
- Monitoring and review elements
- Land use measures sound insulation



## **TAC Preliminary Topics and Schedule**

## TAC Meeting 4

March 2018

NCP Ch. 4 - Part 2

- Land use measures sound barriers/buffers
- Land use measures sales assistance / purchase assurance
- Land use measures real estate disclosure
- Land use measures land acquisition and relocation
- Land use measures easement acquisition

TAC Meeting 5

TBD if needed

TBD if needed



## **TAC** questions and comments

Primary NCP Contact:
Sarah Degutis, Project Manager
The Jones Payne Group
BTVsound@jonespayne.com
617-790-3747



#### NOISE COMPATIBILITY PPROGRAM TECHNICAL ADVISORY COMMITTEE MEETING SUMMARY (#1)

October 17, 2017

#### BTV STAFF/CONSULTANTS

Nic Longo, BTV (Chair)

Gene Richards, BTV (Vice Chair)

Amanda Clayton, BTV

Erin Desautels, Vermont Small Business Acceleration

Sarah Degutis, The Jones Payne Group

Diane Carter, The Jones Payne Group

David Crandall, HMMH

Brad Duncan, HMMH

Brad Nicholas, HMMH

Brandon Robinette, HMMH

#### **TAC MEMBERS:**

Kevin Dorn, South Burlington City Manager

Paul Connor, South Burlington City Planner

Steve Wisloski, South Burlington School Board

David Young, South Burlington School Board

Tim McKenzie, South Burlington Business Association

Col. John Johnston, Vermont Army Guard

Col. Chris Tomilawicz, Vermont Air Guard

Richard Lizzari, Vermont National Guard

Jessie Baker, Winooski City Manager

Sean McMannon, Winooski School District Superintendent [via telephone]

George Maille, South Burlington

Carmine Sargent, South Burlington

Seth Bandeon, GBIC

Frank Cioffi, GBIC

Charlie Baker, CCRPC

Tim McCole, Heritage

Patrick Gallivan, St. Michael's College

Bob McEwing, Essex

#### **PUBLIC ATTENDEES:**

Katie Mobley, CCV

Ron Bazman, FAA

Richard Doucette, FAA [via telephone]

Miranda Jurswad, The Other Paper

#### 1.0 WELCOME and TAC PURPOSE & OVERVIEW

Nic Longo, Director of Airport Planning and Development, opened the meeting at 5:11 PM and explained the Noise Compatibility Plan (NCP) Technical Advisory Committee Meeting (TAC) is part of the required FAA regulatory process. The Sound Mitigation Committee will recess until the NCP TAC meetings have concluded. If there are Sound Mitigation items that need to be addressed that are not on the agenda, or outside of the NCP discussions, please let us know so that we can add them before or after the TAC agenda. Airport Director, Gene Richards, welcomed the attendees and stated the NCP process is important to the community and the airport so there is a good understanding of what is happening today and going forward per the rules.

Sarah Degutis, The Jones Payne Group, said the intent of the NCP update is for the transition from acquisitions of residential properties to other alternative FAA approved noise mitigation programs such as sound insulation. The NCP process began with a public information meeting/open house in June 2017. The TAC is comprised of affected jurisdictions, school districts, airport operators and individuals and who represent the area surrounding the airport. The purpose of the TAC is advisory to the City of Burlington for their update of the NCP. The FAA's process for assessing noise and land use compatibility is known as Part 150. The NCP is one half of the Part 150 process. The other half is the Noise Exposure Map (NEM). The TAC will review the study input, assumptions, analyses, and documentation and will provide input on a recommended noise mitigation program. The City retains the responsibility for the Part 150 Study and NCP recommendations. The FAA must accept the NEM and approve the NCP recommendations. Only approved recommendations are eligible for FAA grant funding.

#### 2.0 PUBLIC FORUM AND COMMENTS

A gentleman in the audience asked about the programs for noise mitigation for residents and schools. Sarah Degutis said there are a number of noise mitigation options the TAC will be considering. It includes a sound insulation program that include replacing windows, doors, attic insulation being installed in the house or school to reduce interior noise levels. Sales assistance and purchase assurance are two other programs. Sales assistance allows the owners to sell their home on the open market. If there is a difference between the purchase price and market value the program can assist with covering those costs. Some of the other options for consideration include a noise barrier/berm or real estate disclosures. The purpose of the NCP update is to look at all options and assess which ones the airport wants to use and pursue grants for these.

Carmine Sargent, South Burlington, said going forward there should be a formal gathering of opinions in order to have valid statistics.

#### 3.0 REVIEW JUNE 2017 OPEN HOUSE

Sarah Degutis noted the following from the open house on June 14, 2017:

• Approximately 100 people were in attendance.

- There were three stations where people could discuss the Part 150 history, NCP goals and options, and NCP land use measures.
- People were interested in where their house is located in the current contour and future contour, programs that are available, land acquisition, sales assistance/purchase, whether the F35 will cause too much noise for people to remain in the neighborhood, and sound insulation for houses and the Chamberlin School.
- People had varied interest in sound mitigation and land acquisition programs based on their personal circumstances.

#### 4.0 REVIEW DRAFT NCP TABLE OF CONTENTS and CHAPTER 1

David Crandall, HMMH, stated the NCP document is a draft. Chapter 1 includes the introductory framework and regulatory framework of the program which is based on the Aviation Safety and Noise Abatement Act ANSA 1979. The federally funded program is voluntary and all federal rules for the program must be followed. The FAA drafted the regulations (14 CFR Part 150). Title 14 deals with airports and aerospace. The NEM and NCP are two elements of Part 150. The NEM is usually updated every five to 10 years. The NCP is not updated as frequently.

#### Mr. Crandall noted the following:

- The airport's current NCP was approved in 2008 and includes a voluntary acquisition/relocation program. The airport and the City of Burlington want to pursue other noise mitigation program options so the NCP is being updated to access other elements such as the sound insulation program.
- Part 150 sets the federal standards and the FAA oversees the program. The airport has been participating since the late 1980s in the Part 150 program. The first NEM was approved in 1989 and the NCP in 1990. The last NCP revision was 2008 and allows for land acquisition to the 65 DNL line.
- The City of Burlington owns the airport and makes Part 150 submittals to the FAA. The city secured consultants to assist with submittals. The FAA determines if the Part 150 requirements are met with the NCP program.
- The TAC represents the stakeholders who could be affected by the NCP update. There will be discussion and consensus by the TAC regarding potential mitigation programs. Part 150 requires that all correspondence outside the meeting be documented as part of the public record. All questions and communications should be forwarded to the consultants and will be distributed to the TAC.
- David Crandall reviewed basic acoustical terminology including the decibel (dB) as the unit of measurement for sound. An "A-weighted (dBA) decibel" is how people hear the pitch of sound. There are a variety of metrics that are used to describe sound including the Day Night Level (DNL). DNL represents the cumulative aircraft sound measured over a period of time, typically a calendar year. There is a 10 dB penalty for aircraft events that occur during nighttime hours (10 PM to 7 AM). David Crandall reviewed a number of graphics illustrating how sound is measured.

- Part 150 land use compatibility provides guidelines for land use categories of residential, transient lodging (i.e. hotel), mobile home parks, schools, hospitals, churches. The land use standards were adopted by the U.S. Department of Housing and have been included in the Part 150 regulation. Part 150 states all land uses are normally compatible with aircraft noise in areas that are less than 65 dB DNL. Residential, transient and public use buildings are not acceptable in area greater than 65 dB DNL.
- To receive federal funding the property must be in in an area of incompatibility as defined by Part 150. Additionally, there are other eligibility requirements to qualify for mitigation program. For example, in order to be eligible to receive sound insulation, in addition to be in a higher noise area, a property's existing interior noise levels must be above a certain threshold. This determination is made by conducting a series of pre-acoustic tests on various housing stock in a given area. Additionally, to be eligible for noise mitigation a property must be construction prior to 1998 or located outside a published noise contour when constructed. If these criteria are not met, the FAA will not pay for noise mitigation even if the property falls within the current incompatible area.
- Part 150 provides a "checklist" which summarizes the key points of information to be provided to ensure the NCP document meets the regulations. The checklist has a provision to revise the document at a later date as the sound environment changes.

Richard Doucette, FAA New England Region, said once an incompatible noise level is reached and people find it objectionable, federal funds can be used for mitigation of the noise with an approved NCP. The FAA's policy for eligible properties is to determine if the 65 DNL contour line crosses the property boundary. If it does then the property is typically eligible for noise mitigation, but there are exceptions. For example, if there is a large or irregular parcel of land and the incompatible structure is not located near the contour line, it might be eligible for mitigation. The FAA also provides for "block rounding" when 80% of the houses in the neighborhood are inside the 65 DNL noise contour line and a few houses are located outside the line. The FAA will approved mitigation for those remaining homes on a case-by-case basis. It may be determined that sound insulation of a house within the 65 DNL with enough insulation and new windows may not be effective. This is where the acoustical testing is conducted and a determination is made whether the home qualifies for the program.

Kevin Dorn, South Burlington, stated the term "incompatible" could be interpreted as having health impacts. He asked if the FAA is implying this as a health impact.

Richard Doucette stated land use compatibility is not related to health impacts.

George Maille, South Burlington, stated the Noise Mitigation Act of 1979 was tied to the Act of 1972 and hearing damage and ability to enjoy your property. The FAA said uniform means of predicting sonic noise at the airport were needed and the 65 dBA was passed in 1972. In California the threshold is less. They have adopted a different metric

October 17, 2017 Page 5

known as CNEL. Mr. Maille said the table in the NCP is vague to determine various sonic sounds and forms of mitigation. The land acquisition program was set up to avoid litigation in court for land taking (eminent domain). The sound levels were set so communities and airports can co-exist.

#### 5.0 OVERVIEW OF EXISTING NCP – CHAPTER 3

David Crandall said Chapter 3 is still being drafted. The chapter provides an overview of the existing NCP, reviews existing measures and current status. Chapter 3 will be sent to the TAC for their review.

#### 6.0 OVERVIEW OF AVIGATION EASEMENTS

Diane Carter, The Jones Payne Group, discussed avigation easements. Avigation easements are a legal document that is given by a property owner to the airport in exchange for something of value. Easements can be purchased with cash or given in exchange for noise mitigation such as sound insulation. The language in the easement can vary and can contain language which allows for the right of flight, light, emissions, and removal of obstructions such as trees or towers. Several avigation easements currently in use in New England have been collected and will be sent to the TAC for review for discussion at the December 2017 meeting.

George Maille asked for information avigation easements that have been used for schools and municipal buildings. Diane Carter stated she would gather that information and forward to the TAC.

Paul Connor, South Burlington, asked about the metrics the airport and host community should consider in the easement. Diane Carter said this is a sensitivity issue between the community and the airport and what the concerns are.

Sarah Degutis wrapped up the presentation by reviewing the proposed schedule of TAC meeting. She indicated the next meeting will be December 5, 2017. There will also be a meeting in January and March 2018. They will be about 6 weeks apart. The process is currently considering 4 TAC meeting, however, there is an option to add a fifth meeting if needed.

#### 7.0 TAC QUESTIONS & COMMENTS

Kevin Dorn, South Burlington, requested that the City of South Burlington have the final say on what goes to the FAA in the NCP on items affecting South Burlington on property outside the airport. Nic Longo advised communications should go through the TAC. Mr. Dorn asked for a response to a letter sent regarding some of these issues to the airport before the next meeting. Gene Richards pointed out the TAC meeting is the opportunity to express ideas and concerns. Nic Longo noted the homeowners themselves will be brought into the conversation. Kevin Dorn emphasized this is a policy issue for South Burlington City Council as it should be for Winooski and Williston.

October 17, 2017 Page 6

Jessie Baker, Winooski, suggested having an additional TAC meeting to go over the options and then having the TAC members go to their respective boards and return with responses. The March timeframe for a meeting may be problematic for towns due to local elections. A six week timeframe may be better. Sarah Degutis said the meeting dates can be confirmed. Nic Longo pointed out the conclusion of the process is a public meeting to receive public comment. Jessie Baker asked about the status of the new NEM. Nic Longo said the airport is moving away from pursuing grant funding and reallocating funding already received to do the update. Gene Richards explained the request for funding was made, but not yet granted.

George Maille, South Burlington, said people will want to know the ramifications associated with getting into sound mitigation or sales assistance or purchase programs. Mr. Maille said he wants to know the impact if he wants to sell his house before he joins a program. Sarah Degutis said the TAC will look at the measures the airport is putting forward in the NCP and implementation for noise mitigation to help in clarifying these impacts.

Frank Cioffi, GBIC, asked if the FAA allows multiple programs at the same time. Sarah Degutis said the NCP looks at budgeting dollars for programs and phasing how a program is laid out. Diane Carter said that multiple options can offered at the same time to give some flexibility to owners.

Charlie Baker, CCRPC suggested summarizing key points at each meeting so the TAC members can report to their boards. Nic Longo urged contacting the airport at any time for information. Gene Richards stressed the airport wants to make sure all boards are informed and can be well represented at the TAC meetings. The program is for the people around the airport who are affected, not necessarily for the leaders of the community. The program will be around for a long time and is not for a political agenda or personal issue, but for the community at large.

#### 8.0 WRAP UP & ADJOURNMENT

Future Meetings & Agenda Items:

- December 5, 2017 NCP Chapters 2 & 3
- January 2018 NCP Chapter 4 Airport Operation Measures & Land Use Measures
- March 2018 NCP Chapter 4 Land Use Measures
- Additional meetings TBD

Send communications to BTVsound@jonespayne.com

With no further business and without objection the meeting was adjourned at 6:32 PM.

## BTV NCP TAC Meeting #2 December 5, 2017

## Technical Advisory Committee - Sound Program, NCP Update DATE: December 5, 2017

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

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1	Gaey Shepaes	Bo Bul. Ut	38456450122 «compasion	
2	Philip FLANIGAD	109 AIRPORT THUX So. Burl	802-865-9696 FLANIGANY to COMCAST	i NET
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5	TIM MCCOLE	HERITAGE AVIATION	914 356 2101	
6	Bill heach	Cerpid Communes 575 Porset St	or fel	
7	Paul Conner	575 PorsetSt	PCONNETE Short-com-	
8	Richard Lizzon	VTNAtional Occupal	802-338-3424 Maple Lisson will collect	l.m
9	Julie & Janine	45 Country cus ox	802-310-5529	
10	Comene Sergest	So. Bur! Besident	802-655-1164	
11	Jessie Baker	City of Winooxi	802-655-6410	
12	Sean McMann	Winoski School District	383-6120	
13	CHAIS TUMILOCINE	UT ANG	358-5584	

## Technical Advisory Committee - Sound Program, NCP Update DATE: December 5, 2017

LOCATION: Burlington International Airport, Conference Room #3

SIGN-IN S	HEET
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#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
40	SPECER MAUR'	SB TAC MANBER.	3/8-8160 LASTEXT@COMOUT, WILL
41	Star MARRIOTT	13 mills AVE	802 8622990
42		27Forest St	802-864-7797
43	E. J'mer	19 Dinal St	802-658-4214
44	Bruce Beoins	360 WM) St	802-863-9686
45	RON BAZMAN	FAA - BWARCT	802-657-4403 Poneld.d. bazman @ tae. 900
46	amanda Clayfon	BTV Eignein	aclayton@btv.aero
47	Miranda Jonsuc 1d	Other Paper	
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### Technical Advisory Committee - Sound Program, NCP Update DATE: December 5, 2017

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
14	Chalie Baker	CCRPC	chakele arporting
15	PJ Blue	68 Arrow Rd	ijlden Ogmail. Com
16	Loretta Marriett	13 mills Ave SB	Loretta Marriotta
17	Berlana Sirvx	2+ Arbar Fo.	barb. sirvis a quail co
18	Robert Love	98 Logwood ST	863-5315
19	KellyColling		316-2561/KG11:
20	Helen Richle	SB City orencel	hriehle@sburt.
21	Parech Gollives	SAINT MICHAETER College	P. PAllive C. Sucvi. Edu
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23			
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## Technical Advisory Committee - Sound Program, NCP Update DATE: December 5, 2017

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
27	Frank CLOATI	60 Main Street Burlington, Ut GBIC	Frank@vormont.org
28	SETH BOUDON	681C	Seth@vermont.org
29	Stove Wishson	So Burlington School Dist	swisloski Osbechools.ne
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### **AGENDA**

#### BTV Noise Compatibility Program (NCP) Technical Advisory Committee Meeting

December 5, 2017

5:00 p.m. - 6:30 p.m.

Conference Room 3

Call in # for those who are unable to attend: 712-775-8972 Code: 235681

5:00 – 5:10	Welcome and overview of agenda
5:10 – 5:20	Public forum and comment period
5:20 – 5:30	Chapter 2 - Land Use Update for NCP
5:30 – 6:00	Chapter 3 – Existing NCP
6:10 – 6:15	Avigation Easements
6:15 – 6:30	Technical advisory committee questions and comments





## **BTV Noise Compatibility Program Update**– Technical Advisory Committee

December 5, 2017



## **Purpose of TAC**

- The TAC is advisory to the City solely for purposes of the BTV Part 150 Study, including:
  - Review of study inputs, assumptions, analyses, documentation, etc.
  - Input, advice, and guidance related to Noise Compatibility Plan (NCP) development
- The City shall respect and consider TAC input, but must retain overall responsibility for the Part 150 Study and NCP recommendations
- The TAC and City recognize FAA is responsible for accepting Noise Exposure Map (NEM) and NCP submissions and for approving NCP measures
- TAC members represent the interests of their organization and/or constituents
- TAC members are expected to provide two-way communication between the City and their organizations / constituents



## **Agenda**

Public forum and comment period

Chapter 2 – Land use update for NCP

Chapter 3 – Existing NCP

Avigation easements

TAC questions and comments period

## **Public Forum and Comment Period**



## NCP Document – Draft outline

- Chapter 1
  - introduces the purpose of the Part 150 NCP Update and provides an overview (discussed at October meeting)
- Chapter 2
  - accepted Noise Exposure Maps (NEMs) and land use information
- Chapter 3
  - describes the existing NCP and approved measures
- Chapter 4
  - presents the new recommended measures to the BTV NCP
- Chapter 5
  - presents the analysis of NCP measures
- Chapter 6
  - describes public consultation



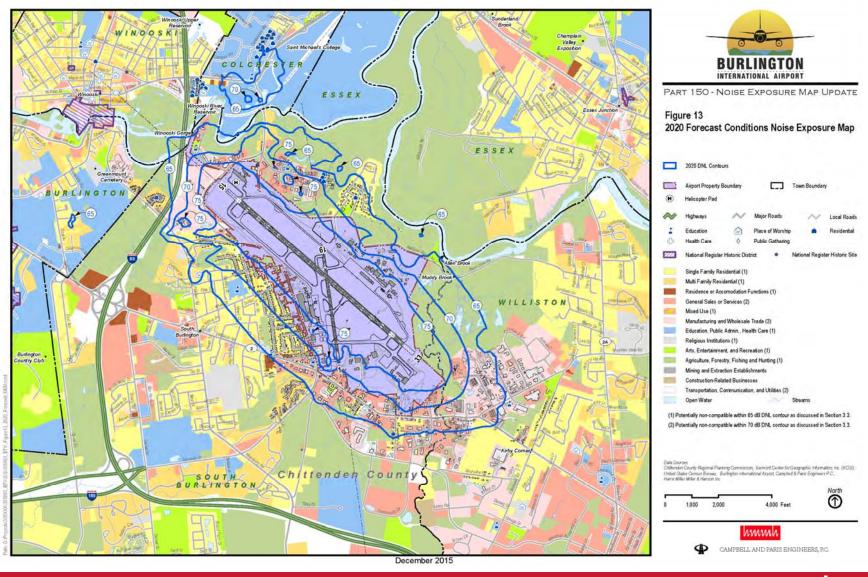
## **Chapter 2 – Accepted Noise Exposure Maps**

## Chapter 2 will include:

- Reference to the FAA-accepted Noise Exposure Maps (NEM)
- Dates of NEM
- NEM Public Consultation Summary
- Noise/Land Use Compatibility Guidelines
- Land Uses with NEM (including an update for 2018)



### **2020 Forecast Conditions NEM**





## **Chapter 2 – Land Use Update**

- Land use data (from NEM update)
  - Provided by Chittenden County Regional Planning Commission
    - Updated based on aerial photography, airport staff data and various internet searches
  - Maps display land use, color coded by the categories noted in the FAA regulation
  - Dwelling inventories were prepared to the parcel/dwelling level
  - Population per dwelling estimated by U.S. Census data



## **Chapter 2 - Land Use Update**

- Land use data updates (for NCP update)
  - Updates provided to reflect:
    - Acquired properties from Voluntary Land Acquisition Program
    - Zoning changes at jurisdiction level
    - Updates to non-residential noise sensitive locations



## **2020 NEM Land Use Analysis Summary**

(updated from 2015 NEM submission)

# Residential dwellings and population within the 2020 65 dB DNL noise contours

571\* single family houses

341\* multi-family (individual apartments/condominium units)

2,119\* estimated population

In addition: St. Michael's College: 2 dormitories; approx.

136 student residents

### List of non-residential noise sensitive locations

6 education facilities

Only public is Chamberlain Elementary School

8 places of worship (3 churches, 5 cemeteries)

1 public gathering place

\*numbers have been be updated from 2015 NEM and will be finalized for the NCP submittal based on current land acquisition program participation



## **2020 NEM Land Use Analysis Summary**

(updated from 2015 NEM submission)

#### **City of South Burlington**

Estimated dwelling units within 65 dB or greater DNL: 888

608 dwelling units are south of the airport and west of Kennedy Dr.

38 dwelling units are south of the airport and east of Kennedy Dr.

242 dwelling units are north of the airport

#### **Town of Williston**

None, although there are two parcels zoned as residential

#### **City of Burlington**

Estimated dwelling units within 65 dB or greater DNL: 9

7 are single-family units along Bilodeau Ct.

2 are multi-family units in a complex along East Ave.

#### City of Winooski

Estimated dwelling units within 65 dB or greater DNL: 11

All of these are single-family units on the southern end of Roland Ct.

#### **Town of Colchester**

Estimated dwelling units within 65 dB or greater DNL: 8 plus 3 dormitories This includes a four unit building along College Ave and 4 individual houses on Gorge Rd.



- The existing 2008 NCP includes 15 FAA-approved measures with a mix of operational, implementation, and land use elements
- The 2008 NCP, and associated Record of Approval (ROA), revised a single measure
  - Eligibility for the Land Acquisition and Relocation Program expanded from the 70 dB DNL contour the 65 dB DNL contour for permanent residences
- The following summary is organized in the same order as the measures were discussed in the FAA's ROA for the 2008 NCP



### **Airport Operations Measures**

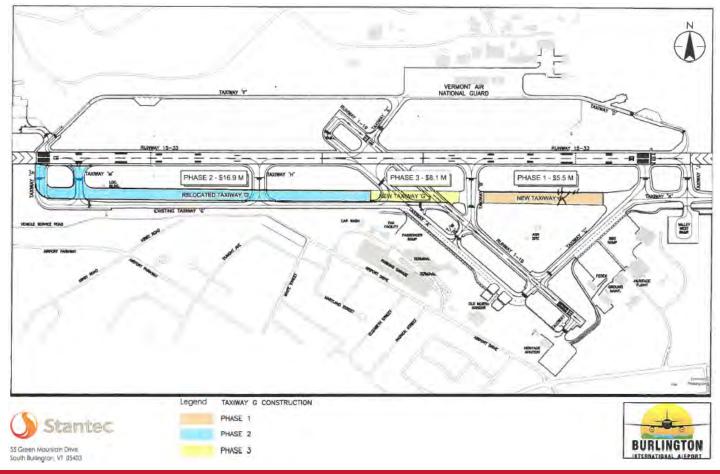
### Extension of Taxiway G

- Taxiway G would be extended from the existing intersection with Taxiways A & C, remaining parallel with Runway 15/33 in order to reduce noise levels for residents along Airport Drive
- Status: In progress. The FAA approved the extension at the planning level; it is shown on the updated 2012 Airport Layout Plan
  - 1) Phase 1 of the construction, started Nov. 2015 and was completed in July 2016
  - 2) Phase 2 started October 2016 and is schedule to be completed by the end of calendar year 2018
  - 3) Phase 3 is schedule to be completed by 2020, and would complete the connection



### **Airport Operations Measures**

Extension of Taxiway G





### **Airport Operations Measures**

Terminal Power Installation and APU/GPU Restrictions

- Installation reduces the need for aircraft to use internal auxiliary power units (APU) or ground power units (GPU).
   Following the installation, a rule prohibiting the use of APUs or GPUs between 10:00 p.m. and 7:00 a.m., would be put in place.
- **Status:** Not fully implemented. The airport terminal has "aircraft ground power" (referred to as "terminal power hooks" in the ROA and the 1989 NCP document) capability at nine gate locations that have passenger boarding bridges. There are 11 gates in total.



### **Airport Operations Measures**

Nighttime Bi-direction Runway Use

- To minimize late-night operations over the City of Winooski, the air traffic control tower would use Runway 15 for departure and Runway 33 for arrivals, traffic conditions permitting.
- **Status:** The BTV ATCT is closed from 10:00 PM until 5:00 AM, which makes implementation of this measure infeasible during these hours. The ATCT has not implemented the procedure during the remaining DNL "nighttime" hours (i.e., from 5:00 AM to 7:00 AM).



### **Airport Operations Measures**

Noise Abatement Flight Paths for Runway 15 and 33 Departures, and 15 Arrivals

- New procedures would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees.
- **Status:** Not fully implemented. Current procedures involve assignments that result in...
  - 1) Most west-bound Runway 15 departures making initial turns to a heading of 190,
  - 2) Most west-bound Runway 33 departures maintaining runway heading until past the City of Winooski, and
  - Most east-bound Runway 33 departures initiating right hand turns over Winooski.



### **Airport Operations Measures**

Voluntary Limits of Military C-5A Training

- An informal agreement with the military limits C-5A operations to only necessary takeoffs and landings.
- **Status:** Not fully implemented. An agreement is not currently in place. However...
  - 1) BTV Operations strongly discourage C-5 training at the airport, because the runways are only 150 feet wide and wake turbulence from C-5 operations tear up the runway-edge lighting.
  - 2) Historically, the military has always coordinated the arrival of a C-5 with BTV Operations because of the constraints on the airfield.
  - 3) All transient military aircraft are limited to two practice approaches.



### **Airport Operations Measures:**

Voluntary Minimization of F-16 Multiple Aircraft Flights

- Military personnel will schedule as many single-aircraft, as opposed to multiple-aircraft, flights as possible.
- **Status:** Not fully implemented. Most F-16 flights require between 2 and 4 aircraft, depending on mission and tactical scenario.
  - F-16s in multiple aircraft flights typically operate with some distance between individual aircraft, so that the aircraft do not produce their maximum noise levels at the same locations at the same time; while aircraft are operating close in time, they are not simultaneous in most cases.



### **Airport Operations Measures:**

Voluntary Army Guard Helicopter Training Controls

- The National Guard helicopter training operations will be conducted away from the airport when conditions permit.
   In terms of long range planning, the Guard should consider consolidating operations at Camp Johnson.
- Status: Not implemented. The National Guard has continued training operations at BTV.



### **Monitoring and Review Elements:**

Ongoing Monitoring and Review of NEM and NCP Status

- The measure provides for revision of the NEM/NCP, citing three examples:
  - 1) Changes in airport layout,
  - 2) Unanticipated changes in the level of airport activity, and
  - 3) Non-compliance with the NCP
- The measure also included the recommendation of the TAC as a Noise Abatement Committee and purchase of a permanent noise monitoring system.
- **Status:** Not fully implemented. The City updated the NEM in 1997, 2006 and 2015, and the NCP in 2008. The City is also planning to prepare an NEM update in the next one to two years.



### **Monitoring and Review Elements:**

Flight Track Monitoring

- Utilization of an outside firm to perform flight track analysis of radar data on a temporal sampling basis
- **Status:** Not fully implemented. Flight tracks for 2015 NEM were developed from calendar year 2012 radar data samples provided by the FAA. City is moving forward with perspective companies that analyze flight track data in the next 6 months.



#### Land Use Measures:

Land Acquisition and Relocation

- A Voluntary program for residences within the 65 dB DNL contour.
   Eligible property owners will be paid fair market value for their
   property at the highest and best rate, and provided relocation
   assistance in accordance with the Uniform Relocation Assistance and
   Real Property Acquisition Policies Act of 1970 (the "Uniform Act")
   and implementation of Department of Transportation (DOT)
   regulations.
- The City, and applicable jurisdiction, will conduct studies to define program boundaries and to identify options for compatible reuse.
- The City, and applicable jurisdiction, will develop a land use plan for the area surrounding the airport that is impacted by noise. This effort will follow the guidance contained in the FAA document "Management of Acquired Noise Land: Inventory Reuse Disposal" dated January 30, 2008, or later superseding documents.



### **Land Use Measures:**

Land Acquisition and Relocation

- Status: Implemented. The City has purchased some, and is in the process of purchasing additional, permanent residences in the 65 dB DNL contour.
  - Since the start of federal Fiscal Year 2007 (started October 1, 2006) through September 2015, the FAA has issued 12 grants to the City of Burlington totaling approximately \$32.6 million.
  - The FAA does have additional eligibility requirements aside from the property being within the 65 dB DNL NEM contour.
  - FAA's eligibility requirements are best described in FAA's Airport Improvement Program (AIP) Handbook.
  - Both the City of Burlington and other local municipalities have expressed an interest in ending the voluntary acquisition program and transitioning to other mitigation options. The City's recommendation regarding future of the Land Acquisition and Relocation measure will be discussed in a later chapter of the document.



### **Land Use Measures:**

### Sound Insulation

- 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 sound insulation program.
- **Status:** Not implemented. To date, the City and FAA have chosen to apply available funding to land acquisition. The City's recommendation regarding future sound insulation around BTV will be discussed later in the document.



### Land Use Measures:

**Easement Acquisition Related to Soundproofing** 

- The City would attempt to negotiate avigation easements within the 65 dB DNL contour, in return for sound attenuation assistance.
- **Status:** Not implemented. To date, the City has chosen to apply available funding to land acquisition. The City's recommendation regarding future sound insulation around BTV will be discussed later the document.



#### Land Use Measures:

**Airport Zoning Overlay District** 

- Land use measure that would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation.
- Status: Not implemented. Although a formal Airport Zoning Overlay District has not been adopted, the City of South Burlington has actively worked to consider airport noise when addressing land-use decisions around the airport. The City's recommendation regarding an Airport Zoning Overlay District around BTV will be discussed later the document.



### Land Use Measures:

Easement Acquisition for New Development

- Easements would be obtained for new development within the 65, 70 and 75 dB DNL contours.
- **Status:** Not implemented. The City's recommendation regarding easements around BTV will be discussed later the document.



### **Land Use Measures:**

### Real Estate Disclosure

- A real estate disclosure policy would be developed for land uses within the 65 DNL contour, and implemented through revisions to zoning ordinances.
- **Status:** Not implemented. The airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour.
  - However, outside of the Part 150 process, a disclosure of airport noise, particularly related to anticipated changes of Vermont Air National Guard Aircraft, has been included in many real estate transactions.
  - The City's recommendation regarding future real estate disclosures around BTV will be discussed later in the document.



## **Avigation Easements**

- Avigation Easements are a legal document between the owner and the Airport Sponsor that is conveyed in exchange for something of value.
- Easements acknowledge:
  - The right of aircraft flight over or near a property
  - May also include the light, emissions and other items
  - May also include prohibition of obstructions (trees, towers)
- Can be given in exchange for noise mitigation such as:
  - Sound Insulation
  - Land Acquisition
- Can be in exchange for a monetary sum which is determined by:
  - Previously determined lump sum or
  - Percent of appraised fair market value
  - Method and or value must be approved by FAA



## **Avigation Easements**

- Easements are attached to the property and continue with the land after the sale of a home
- Easements deem the property as a compatible land use under Part 150
- Provides disclosure to future owners

#### EASEMENT

THIS EASEMENT made this \_\_\_\_\_day of \_\_\_\_\_\_, 2016, by and between \_\_\_\_\_of New Haven/East Haven, Connecticut, and their successors or assigns hereinafter referred to as the "Grantor(s)", and Tweed-New Haven Airport Authority, a public instrumentality and political subdivision of the State of Connecticut created under Connecticut General Statutes Sec. 15-120g et seq., as amended, hereinafter referred to as the "Grantee".

#### WITNESSETH:

WHEREAS, Grantee is charged with the management and operation of Tweed New Haven Airport; and

WHEREAS, certain real property is owned by Grantor(s), in fee simple, commonly known as **Address**, **City**, Connecticut and more particularly described in Exhibit A attached hereto and made a part hereof, and referred to as the "Property";

WHEREAS, the Property meets certain interior noise level criteria and lies within certain noise zones commonly referred to as those areas above Day Night Average Sound Level of 65 decibels, as depicted on the Official Noise Contour Map of the Airport ("2017 Future DNL Contour") dated November, 2012 and available for review and inspection at the Airport's administrative offices, 155 Burr Street, New Haven, CT 06512; and

WHEREAS, Grantee is offering a residential sound insulation program for the Property to reduce aircraft noise experienced by Grantor(s) in the interior of the structure located on the Property; and

WHEREAS, Grantor(s) have elected to receive, and Grantee has agreed to provide, sound insulation on the Property, more particularly described in Schedule 1 attached hereto and made a part hereof; and

NOW THEREFORE, for valuable consideration, receipt of which is hereby acknowledged by Grantor(s), Grantor(s) hereby grant and convey and assign to Grantee, a perpetual easement more particularly described as follows:

1) The real property subject to the grant of easement hereinafter described is an airspace parcel ("Airspace Parcel") above the surface of the Property having the same boundaries as the Property and extending from the surface upwards to the limits of the atmosphere.



## **TAC Preliminary Topics and Schedule**

### TAC Meeting 3

January 23, 2018

NCP Ch. 4 – Part 1

- Airport operation measures
- Monitoring and review elements
- Land use measures sound insulation

Discussion and feedback from TAC 4

### TAC Meeting 4

March 13, 2018

NCP Ch. 4 – Part 2

- Land use measures sound barriers/buffers
- Land use measures sales assistance / purchase assurance
- Land use measures real estate disclosure
- Land use measures land acquisition and relocation
- Land use measures easement acquisition

Discussion an feedback from TAC 3



## **TAC Preliminary Topics and Schedule**

TAC Meeting 5

May 2018

Discussion and feedback from TAC 4

Public Hearing and Comment Period estimated August – September 2018



## **TAC** questions and comments

Primary NCP Contact:
Sarah Degutis, Project Manager
The Jones Payne Group
BTVsound@jonespayne.com
617-790-3747



### Burlington International Airport 14 CFR Part 150 Update

2018 Noise Compatibility Program

HMMH Report No. 308770

???Date

Prepared for:

City of Burlington, Vermont 1200 Airport Drive, #1 Burlington, VT 05403 Draft Document for Disussion at the Dec. 2017 TAC Meeting

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### 3 Existing Noise Compatibility Program

This NCP builds on the previous noise compatibility studies at BTV. The existing NCP includes 15 FAA-approved measures with a mix of operational, implementation, and land use elements. The FAA's 2008 Record of Approval (ROA), for the 2008 NCP submission, listed NCP elements in the order presented below. The 2008 NCP, and associated ROA, revised a single measure. Appendix A presents a copy of the 2008 ROA.

The following discussion of the NCP has been organized in the same manner as the FAA's 2008 ROA. The 2015 and 2020 NEM are based on empirical data reflecting the current implementation status of these noise abatement measures. The United State Air Force's Record of Decision for the F-35A Operational Basing Environmental Impact Statement (USAF EIS), agreed to adhere to the 2008 NCP. <sup>10</sup>

#### 3.1 Airport Operations Measures

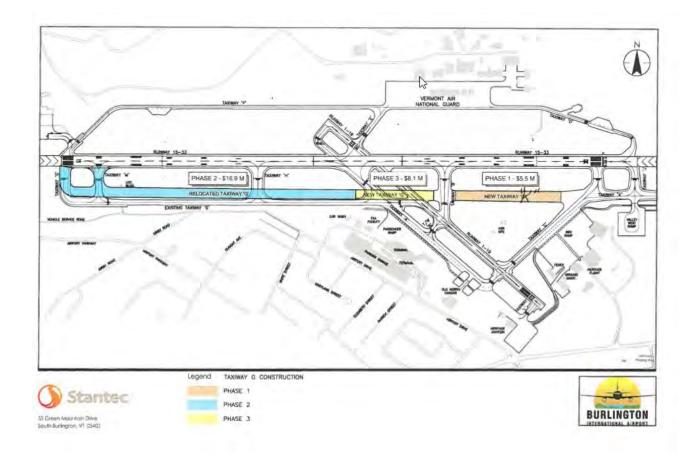
#### 3.1.1 Extension of Taxiway G

Taxiway G would be extended from the existing intersection with Taxiway A to Taxiway C, remaining parallel with Runway 15/33 in order to reduce noise levels for residents along Airport Drive (2008 ROA Measure 1).

Status: In progress. The FAA approved the extended Taxiway G at the planning level; it is shown on the updated 2012 Airport Layout Plan. Current Taxiway G is on the northwest side of the airfield and current Taxiway K is on the southeast side. The complete Taxiway G extension will create a single taxiway parallel to Runway 15-33 and linking to the current Taxiway K. The multi-phase project is scheduled for completion sometime around 2020. Phase 1 of the construction, started early November 2015 and was completed in July 2016.. Phase 2 started October 2016 and is schedule to be completed by the end of calendar year 2018. Phase 3 is schedule to be completed by 2020, and would complete the connection between Taxiway A and Taxiway C as described in this NCP measure. The 2015 NEM reflects the taxiway layout before the start of the project and the 2020 NEM reflects the forecasted taxiway layout including the extended Taxiway G.

[Editorial note: the above discussion maybe updated]

<sup>&</sup>lt;sup>10</sup> Document was released September 2013. The Air Force issued a Record of Decision (ROD) December 2, 2013. A copy is available from the Defense Technical Information Center website at <a href="http://www.dtic.mil/docs/citations/ADA595409">http://www.dtic.mil/docs/citations/ADA595409</a>



Place holder Figure – Taxiway G and K phasing Source, Stantec, prepared under contract to the City of Burlington

#### 3.1.2 Terminal Power Installation and APU/GPU Restrictions.

Installation of terminal power hookups for aircraft would reduce the need for aircraft to use internal auxiliary power units (APU) or ground power units (GPU). Following the installation, a rule prohibiting the use of APUs or GPUs between 10:00 p.m. and 7:00 a.m., would be put in place (2008 ROA Measure 2).

Status: Not fully implemented. The airport terminal has "aircraft ground power" (referred to as "terminal power hooks" in the ROA and the 1989 NCP document) capability at nine gate locations that have passenger boarding bridges. There are 11 gates in total.

#### 3.1.3 Nighttime Bi-direction Runway Use

To minimize late-night operations over the City of Winooski, the air traffic control tower would use Runway 15 for departure and Runway 33 for arrivals, traffic conditions permitting (2008 ROA Measure 3).

Status: Not implemented. The BTV ATCT is closed from midnight until 5:30 AM, which makes implementation of this measure infeasible during these hours. The ATCT has not implemented the procedure during the remaining "nighttime" hours, as defined by DNL; i.e., from 10 PM to midnight and 5:30 to 7:00 AM.

[Editorial note: the above discussion maybe updated.]

### 3.1.4 Noise Abatement Flight Paths for Runway 15 and 33 Departures, and 15 Arrivals

New procedures<sup>11</sup> would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees (2008 ROA Measure 4).

Status: Not fully implemented. Current procedures involve assignments that result in: (1) most west-bound Runway 15 departures making initial turns to a heading of 190, (2) most west-bound Runway 33 departures maintaining runway heading until past the City of Winooski, and (3) most east-bound Runway 33 departures initiating right hand turns over the City of Winooski.

[Editorial note: the above discussion maybe updated.]

#### 3.1.5 Voluntary Limits of Military C-5A Training

An informal agreement with the military limits C-5A operations to only necessary takeoffs and landings (2008 ROA Measure 5).

Status: Not fully implemented. An agreement is not currently in place. However, BTV Operations strongly discourage C-5 training at the airport, because the runways are only 150 feet wide and wake turbulence from C-5 operations tear up the runway-edge lighting. Historically, the military has always coordinated the arrival of a C-5 with BTV Operations because of the constraints on the airfield. Furthermore, all transient military aircraft are limited to two practice approaches at BTV.

[Editorial note: the above discussion maybe updated.]

#### 3.1.6 Voluntary Minimization of F-16 Multiple Aircraft Flights

Military personnel will schedule as many single-aircraft, as opposed to multiple-aircraft, flights as possible (2008 ROA Measure 6).

Status: Not fully implemented. Most F-16 flights require between 2 and 4 aircraft, depending on mission and tactical scenario. Based on observations, F-16s in multiple aircraft flights typically operate with some distance between individual aircraft, so that the aircraft do not produce their maximum noise levels at the same locations at the same time; while aircraft are operating close in time, they are not simultaneous in most cases.

[Editorial note: the above discussion maybe updated.]

#### 3.1.7 Voluntary Army Guard Helicopter Training Controls

The National Guard helicopter training operations will be conducted away from the airport when conditions permit. In terms of long range planning, the Guard should consider consolidating operations at Camp Johnson (2008 ROA Measure 7).

Status: Not implemented. The National Guard has continued training operations at BTV.

[Editorial note: the above discussion maybe updated.]

<sup>&</sup>lt;sup>11</sup> "New procedures" was the language used in the 1989 NCP.

#### 3.2 Monitoring and Review Elements

## 3.2.1 Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP. This measure also included the recommendation of the Technical Advisory Committee as a Noise Abatement Committee and purchase of a permanent noise monitoring system (2008 ROA Measure 8).

Status: Not fully implemented. The City of Burlington, Vermont updated the BTV NEM in 1997, 2006 and 2015. The City updated the NCP in 2008. This documentation represents the second NCP update. The City of Burlington, Vermont is planning to prepare an NEM update in the next one to two years.

#### 3.2.2 Flight Track Monitoring

Utilization of an outside firm to perform flight track analysis of radar data on a temporal sampling basis (2008 ROA Measure 9).

Status: Not fully implemented. Flight tracks for 2015 NEM were developed from calendar year 2012 radar data samples provided by the FAA.

#### 3.3 Land Use Measures

Most of the following land use measures require noise contours, and would use the 2015 and 2020 NEM once they are found in compliance with 14 CFR Part 150 by FAA. As discussed in Section 1.2, the City recommends using the extents of the 2015 and 2020 NEM contours for land use planning.

#### 3.3.1 Land Acquisition and Relocation

Noncompatible land use includes residences within the 65 dB DNL contour. This program is voluntary. Eligible property owners will be paid fair market value for their property at the highest and best rate, and provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the "Uniform Act") and implementation of Department of Transportation (DOT) regulations. The City, in coordination with applicable jurisdiction, will conduct studies to define program boundaries and to identify options for compatible reuse of the acquired properties.

The City, and the jurisdiction within which the program is implemented, will develop a land use plan for the area surrounding the airport that is impacted by noise. This effort will follow the guidance contained in the FAA document "Management of Acquired Noise Land: Inventory Reuse Disposal" dated January 30, 2008, or later superseding documents. (2008 ROA Measure 10).

Status: Implemented. The City has purchased some, and is in the process of purchasing additional, permanent residences in the 65 dB DNL contour. Since the start of federal Fiscal Year 2007 (started October 1, 2006) through September 2015, the FAA has issued 12 grants to the City of Burlington totaling approximately \$32.6 million. Note: As with most grant programs, the FAA does have additional eligibility requirements aside from the property being within the 65 dB DNL NEM contour. FAA's eligibility requirements are best described in FAA's Airport Improvement Program (AIP) Handbook. As noted previously in this document, both the City of

<sup>&</sup>lt;sup>12</sup> FAA grant data is available at <a href="http://www.faa.gov/airports/aip/grantapportion">http://www.faa.gov/airports/aip/grantapportion</a> data/

<sup>&</sup>lt;sup>13</sup> FAA's current guidance, policy and procedures are documented in FAA Order 5100.38D "Airport Improvement Program (AIP) Handbook", effective September 30, 2014. <a href="http://www.faa.gov/airports/aip/aip\_handbook/">http://www.faa.gov/airports/aip/aip\_handbook/</a>

Burlington and other local municipalities have expressed an interest in ending the voluntary acquisition program and transitioning to other mitigation options. The City's recommendation regarding future of the Land Acquisition and Relocation measure is discussed later in this document.

[Editorial note: the above discussion maybe updated.]

#### 3.3.2 Sound Insulation

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 sound insulation program (2008 ROA Measure 11).

Status: Not implemented. To date, the City has chosen to apply available funding to land acquisition. The City's recommendation regarding future sound insulation around BTV is discussed later in this document.

#### 3.3.3 Easement Acquisition Related to Soundproofing

The City would attempt to negotiate avigation easements within the 65 dB DNL contour, in return for sound attenuation assistance (2008 ROA Measure 12).

Status: Not implemented. To date, the City has chosen to apply available funding to land acquisition. The City's recommendation regarding easements for properties around BTV is discussed later in this document.

#### 3.3.4 Airport Zoning Overlay District

Land use measure that would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation (2008 ROA Measure 13).

Status: Not implemented. Although a formal Airport Zoning Overlay District has not been adopted, the City of South Burlington has actively worked to consider airport noise when addressing land-use decisions around the airport. The City's recommendation regarding an Airport Zoning Overlay District around BTV is discussed later in this document.

#### 3.3.5 Easement Acquisition for New Development

Easements would be obtained for new development within the 65, 70 and 75 dB DNL contours (2008 ROA Measure 14).

Status: Not implemented. The City's recommendation regarding easements around BTV is discussed later in this document.

#### 3.3.6 Real Estate Disclosure

A real estate disclosure policy would be developed for land uses within the 65 DNL contour, and implemented through revisions to zoning ordinances (2008 ROA Measure 15).

Status: Not implemented. The airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour. However, outside of the Part 150 process, a disclosure of airport noise, particularly related to anticipated changes of Vermont Air National Guard Aircraft, has been included in many real estate transactions. The City's recommendation regarding future real estate disclosures around BTV is discussed later in this document.



#### **AVIGATION EASEMENTS**

#### Overview

FAA's AIP Handbook (Order 5100.38D), Appendix R sets forth the guidelines for obtaining avigation easement. The FAA encourages airport sponsors to obtain a noise easement in return for mitigation. The regulations states:

"An easement may be conveyed by the property owner in exchange for the sound insulation improvements provided. However, an AIP grant may not include a requirement that a property owner convey an easement or other interest in the property to the sponsor in exchange for sound insulation. The FAA encourages sponsors to work out such voluntary property agreements locally."

Communities should be aware that while the easement is not required, if an approved noise compatibility plan includes language stating there will be an easement in exchange for sound insulation or other mitigation measure then all eligible property owners would be required to convey the easement as a condition of participation.

#### **Easement Definition**

An avigation easement is a conveyance of a specified property interest for a particular area that restricts the use by the owner of the surface yet assures the owner of the easement the right and privilege of a specific use contained within the easement document. Avigation easements, which are conveyed by a property owner to the airport owner, are often used in noise mitigation programs in exchange for sound insulation, sales assistance, and purchase assurance.

The easement may consist of right-of-flight of aircraft; right to cause noise, dust, etc.; and the right to remove all objects protruding into the airspace together (typically trees) with the right to prohibit future obstructions in the airspace. The easement may also contain any number of additional restrictions as the airport owner deems necessary.

#### Reasons to Require an Easement

An easement provides notice to future owners that property is located in an aircraft noise impacted area and those impacts have been mitigated. The easement rights run with the land and will apply to all future owners of the property. Additionally, the easement helps to establish the property is now compatible with the recommended land use.



#### **Examples of Easement Language**

Three avigation easements are being provided as examples of language that has been used on noise mitigation programs in the FAA New England region; Bradley International Airport in Windsor Locks, CT; T.F. Green Airport in Warwick, RI; and Tweed- New Haven Airport in New Haven CT. The language in these can help in developing easement language for Burlington International Airport and understand the variations at different airports.

#### **Easement for Public Buildings**

Our research indicates that when an easement is given in exchange for mitigation to a public building (school, church, etc.) the easement language is the same easement as used for residential buildings. In some cases, no easement is given since the entity with jurisdictional authority of the public building also has authority over the airport.

# AVIGATION EASEMENT BRADLEY INTERNATIONAL AIRPORT

	THIS E	ASEMEN	IT grar	nted thi	is	(	day of				2011, by
Name,	Street A	Address,	City	or Tov	vn, C	T Zip (	Code a	and the	eir success	ors o	r assigns
hereinaf	fter refer	red to a	s the	"Grant	ors",	to the	State	of Co	nnecticut,	Depai	rtment of
Transpo	ortation,	Bureau	of Av	<i>v</i> iation	and	Ports,	and	their	successor	s or	assigns,
hereinaf	fter refer	red to as	the "G	rantee	.".						

#### WITNESSETH:

WHEREAS, "Grantee" is charged with the operation, administration, improvement, regulation and protection of state-owned airports; and

WHEREAS, Bradley International Airport is a state owned airport located in the Town of Windsor Locks, Connecticut, hereinafter referred to as the "Airport"; and

WHEREAS, certain real estate is owned by "Grantors", in fee simple, more particularly described in **Book** \_\_\_\_ Page \_\_\_\_ of the records of the Town of \_\_\_\_, CT and by this reference made a part hereof, and referred to hereinafter as the "Property"; also known as **Street Address**, **City or Town**, **CT Zip Code** and

WHEREAS, "Grantee" is undertaking a residential sound insulation program to grant certain relief regarding aviation noise to property owners residing near the "Airport" and whose property lies within certain noise zones more commonly referred to as those areas above DNL 65 dB as shown upon the 2008 Noise Exposure Map from the FAA approved 14 CFR Part 150 Study, in return for which the "Grantors" must convey to "Grantee" an avigation and noise easement; and

WHEREAS, "Grantee" has agreed to provide "Grantors" sound insulation, and "Grantors" have elected to participate in this program.

NOW THEREFORE, for valuable consideration, receipt of which is hereby acknowledged by the parties, Grantors hereby grant and convey unto Grantee, for the use and benefit of the grantee and the public, a perpetual easement on, over, across, and upon the Property for the unobstructed use and passage of all types of aircraft (as hereinafter defined), in and through the airspace above Grantors' property, more particularly described as follows:

- 1) Said easement to run on, over, across, and upon the above described real property encompasses the air space above the surface of Grantors' Property having the same boundaries as the above described property and extending from the surface upwards to the limits of the atmosphere of the earth. Grantor further agrees that no structures, improvements or vegetation exceeding 320 feet elevation shall be permitted to be located, constructed or remain on the Property. Grantor further grants to the Grantee the right to enter upon the Property to trim any trees or other vegetation which exceed the above elevation at no cost or expense to Grantor. Any such entry by the Grantee shall be at reasonable hours and with reasonable notice to Grantor and the Grantee shall remove any limbs, wood or other debris generated by its entry so as not to interfere with Grantor's continuing use of the Property.
- 2) To have and to hold said easement in perpetuity unto the said Grantee, and its successors and assigns, until said Airport shall be abandoned and shall cease to be used for airport purposes.

- 3) Said easement shall run with the land and be appurtenant to and for the benefit of all of the real property comprising and known as Bradley International Airport and such other additional property or interest therein as shall be subsequently acquired or designated from time to time by Grantee or its successors and assigns as constituting a part of the Airport, and the easement shall be in gross for the benefit of Grantee and all other persons and entities who directly or indirectly use the easement as a result of any type of use of the property and facilities constituting the Airport, including aviation ground and flight operations.
- Said easement shall encompasses all things which may be alleged to be incident to or resulting from the use and enjoyment of said easement, including, but not limited to the right to cause in all airspace above or in the vicinity of the surface of Grantors' Property such noise, vibrations, fumes, deposits of dust or other particulate matter, fuel particles (which are incidental to the normal operation of said aircraft), fear, interference with sleep and communication and any and all other effects that may be alleged to be incident to or caused by the operation of aircraft over or in the vicinity of Grantors' Property or in landing at or taking off from, or operating at or on said Bradley International Airport; and Grantors do hereby fully waive, remise, and release for themselves and their heirs, administrators and executors, successors and assigns, any right or cause of action which they may now have or which they may have in the future against Grantee, its successor and assigns, due to such noise, vibrations, fumes, dust, fuel particles and all other effects that may be caused or may have been caused by the normal operation of aircraft landing at, or taking off from, or operating at or on said Airport, now and in the future, while recognizing that the quantity of such operations may increase in the future.
- 5) All of the uses provided for in this easement shall be without any liability of Grantee or of any other person or entity entitled to the benefits of this easement for emotional injury to persons, animals or any other living thing, the diminution in value of any personal or real property, and discomfort or interference with the audio portion of television and/or radio by, from, or arising from, noise generated from the normal operation of aircraft. This grant expressly does not exclude claims by the Grantor or those claiming under it for physical or personal injury caused by any air traffic utilizing the easement, which does actual physical damage to the property or persons located therein.
- 6) The Grantors for their heirs, successors, and assigns, do hereby covenant that they are lawfully seized of an indefeasible estate in the herein described property; and they have the right to grant and convey the estate, interest and easement herein conveyed; and that they will specially warrant and defend unto the Grantee and its assigns, forever, the quiet and peaceable use and enjoyment of the herein granted easement.
- 7) As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include, but not limited to, jet aircraft, propeller driven aircraft, civil aircraft, military aircraft, commercial aircraft, helicopters and all types of aircraft or vehicles now in existence or hereafter developed for the purpose of transporting persons or property through the air, by whoever owned or operated.

HOMEOWNER(S	s)		
Ву:			
Ву:			
STATE OF CON	NECTICUT		
COUNTY OF HA	RTFORD		
On this d	ay of, 2	2011, before me p	personally appeared
			the foregoing instrument, and be their free act and deed.
		Notary Public	My Commission Expires:
STATE OF CONIN Department of Transport Bureau of Aviation Approved as to for	ansportation n and Ports		
Deputy Commiss	ioner Albert Martin		Date
		Notary Public	My Commission Expires:

IN WITNESS WHEREOF, this Agreement is duly executed on the day and year first above written, by the parties hereto, intending themselves to be legally bound hereby.

#### **AVIGATION EASEMENT CONSENT**

WHEREAS, **Mortgagee**, **Address**, **City or Town**, **State Zip Code** is the Mortgagee of a certain deed mortgage **dated 3/30/10** from **Homeowner Name** Mortgagor (s), which mortgage encumbers the real property at **Address**, **City or Town**, **State Zip Code** and which mortgage is recorded at <u>Town Clerk's Office</u>, <u>Town of **Suffield**, CT, **Volume XXX**, **Page XXX**. Recorder's Office (Town Clerk) of **Suffield**, CT;</u>

WHEREAS, the Connecticut Department of Transportation / Bradley International Airport (Authority), has proposed to acquire from the said mortgagor(s) an Avigation Easement over the said encumbered real property in exchange for the said mortgagor(s) participation in Bradley International Airport's Residential Sound Insulation Program; and

their mortgagors of such Avigation Easements:

The foregoing was acknowledged me by \_\_\_\_\_

(Title)

as the date last set forth above.

WHEREAS, the said Authority requests the consent of mortgagees to the granting by

Now, therefore for valuable considerations paid, Mortgagee by and \_\_\_\_\_its \_\_\_\_\_ hereby consents to the through (Name) (Title) granting of an Avigation Easement by Homeowner Name to the Connecticut Department of Transportation and Bradley International Airport, which said Avigation Easement shall encumber the above-referenced real property, which is more particularly described in the Exhibit "A" attached hereto. Further, the mortgagee consents to the filling of this consent instrument with the said Avigation Easement as evidence of such consent to grant. Signed this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_. Signed in the presence of: Witness (Company) Witness (Title) State of County of :

on behalf of

Notary Public	
My Commission Expires	

(Company)

#### **DEED OF EASEMENT**

THIS DEED OF EASEMENT made this	day of	, 2015, by and between
	of Warwi	ck, Rhode Island, and their successors or
assigns hereinafter referred to as the "Gr	cantors", and R	hode Island Airport Corporation and its
successors or assigns any current or future	re owners or op	erators of Theodore France Green State
Airport, including, without limitation, the S	tate of Rhode Isl	and, hereinafter collectively referred to as
the "Grantee".		

### **WITNESSETH:**

**WHEREAS**, Grantee is charged with the operation, administration, improvement, regulation and protection of state-owned airports; and

**WHEREAS**, Theodore Francis Green State Airport is a state owned airport located in the City of Warwick, Rhode Island, hereinafter referred to as the "Airport"; and

WHEREAS, certain real estate is owned by Grantors, in fee simple, more particularly described as \_\_\_\_\_\_\_, Plat \_\_\_\_\_, Lot\_\_\_\_\_\_, in Book \_\_\_\_\_\_\_ Page \_\_\_, and referred to as the "Property";

**WHEREAS**, Grantee is offering a residential sound insulation program that will make changes to Grantor's property to reduce aircraft noise experienced by Grantor in the interior of the structure located on the Property to make the Property compatible with the noise environment created by the Airport;

WHEREAS, Grantor's Property meets certain interior noise level criteria and lies within certain noise zones commonly referred to as those areas above Day Night Average Sound Level of 65 decibels. The areas are depicted on the Federal Aviation Administration accepted noise contour map prepared by VHB/Harris, Miller, Miller & Hanson, the Official Noise Contour Map of the Airport dated ("2010 Official Noise Contour Map") and publicly available for review and inspection at RIAC's administrative offices, 2000 Post Road, Warwick, RI 02886; and,

WHEREAS, Grantor has elected to receive, and Grantee has agreed to provide, sound insulation, more particularly described in Exhibit "A", (attached hereto and made a part hereof); and,

**NOW THEREFORE**, for valuable consideration, receipt of which is hereby acknowledged by the parties signatures below, Grantors hereby grant and convey and assign to Grantee, for the use and benefit of the Grantee and the public, a perpetual easement on, over, across, and upon the Property, "the Easement" more particularly described as follows:

- 1) The Easement herein granted on, over, across, and upon the above described real property encompasses the air space above the surface of Grantor's Property having the same boundaries as the Property and extending from the surface upwards to the limits of the atmosphere of the earth.
- 2) The Easement is granted in perpetuity unto the said Grantee, and its successors and assigns, until said Airport shall be abandoned and shall cease to be used for airport purposes.
- The Easement shall run with the land and be appurtenant to and for the benefit of all of the real property comprising and known as the Airport and such other additional property or interest therein, as may be subsequently acquired or designated from time to time by Grantee, or its successors and assigns, as constituting a part of the Airport. The Easement shall be in gross for

the benefit of Grantee and all other persons and entities who directly or indirectly use the easement as a result of any type of use of the Airport, including aviation ground and flight operations.

- 4) The Easement grants the privilege of passage of all lawful flight operations and all noise, and vibration, discomfort, inconvenience, interference with use and enjoyment, and any consequent reduction in market value, all due to noise caused directly or indirectly by the lawful operation of aircraft, recognizing that such use and passage is unlimited as to frequency, type of aircraft, and proximity, and that the quantity of such operations at the Airport may increase in the future.
- 5) The uses provided for in this Easement shall be without any liability of Grantee, or of any other person or entity entitled to the benefits of this Easement, for all lawful flight operations and all noise, or other intrusions associated with the passage of lawful flight operations associated with Airport noise, which may be alleged to be incident to or to result from flights of aircraft over or in the vicinity of the Property, including the landing at or taking-off from the Airport. Grantor furthermore waives all claims for damages caused or alleged to be caused by or incidental to such use including emotional injury to persons, animals or any other living thing associated with Airport noise, the diminution in value of any personal or real property, and discomfort or interference with the audio portion of television and/or radio by, from, or arising from, the normal operation of aircraft. This Easement does not exclude claims by the Grantor, or those claiming under the Grantor, for physical or personal injury caused by any air traffic utilizing the easement which does actual physical damage to the Property or persons located therein by coming into direct physical contact with the Property or persons located therein. This Easement also does not exclude the Grantor from seeking to participate in any future Federal Aviation Administration noise mitigation programs offered by Grantee for which Grantor may be eligible due to changes to the 2010 Official Noise Contour Map.
- The Grantors for their heirs, successors, and assigns, do hereby covenant that they are lawfully seized of an indefeasible estate in the Property; and they have the right to grant and convey the Easement; and that Grantors will warrant and defend unto the Grantee and its assigns, forever, the quiet and peaceable use and enjoyment of the Easement.

IN WITNESS WHEREOF, the Grant 2015.	ors have set their hands a	nd seals this_day of,
STATE OF RHODE ISLAND COUNTY OF KENT		
In Warwick, Rhode Island on theappeared		, 2015, before me personally
	_ to me known and know	vn by me to be the party executing the
foregoing instrument and they acknow and deed.	rledged said instrument,	by them executed, to be their free act
	Notary Public	
	Printed Name: _	
	My commission	expires:

After recording, return to: Updike, Kelly & Spellacy, P.C. 265 Church Street - 10th Floor New Haven, CT 06510

Attention: Hugh I. Manke, Esq.

#### **EASEMENT**

-		ıs
antor(s)", and Tw division of the Sta	veed-New Haven Airport Authority, a ate of Connecticut created under Con	n public necticut
with the manager	nent and operation of Tweed New Ha	aven
more particularly	described in Exhibit A attached here	
	cast Haven, Connectantor(s)", and Tweldivision of the States seq., as amended with the manager by is owned by Gramore particularly	

WHEREAS, the Property meets certain interior noise level criteria and lies within certain noise zones commonly referred to as those areas above Day Night Average Sound Level of 65 decibels, as depicted on the Official Noise Contour Map of the Airport ("2017 Future DNL Contour") dated November, 2012 and available for review and inspection at the Airport's administrative offices, 155 Burr Street, New Haven, CT 06512; and

WHEREAS, Grantee is offering a residential sound insulation program for the Property to reduce aircraft noise experienced by Grantor(s) in the interior of the structure located on the Property; and

WHEREAS, Grantor(s) have elected to receive, and Grantee has agreed to provide, sound insulation on the Property, more particularly described in Schedule 1 attached hereto and made a part hereof; and

NOW THEREFORE, for valuable consideration, receipt of which is hereby acknowledged by Grantor(s), Grantor(s) hereby grant and convey and assign to Grantee, a perpetual easement more particularly described as follows:

1) The real property subject to the grant of easement hereinafter described is an airspace parcel ("Airspace Parcel") above the surface of the Property having the same boundaries as the Property and extending from the surface upwards to the limits of the atmosphere.

- 2) Grantor(s) hereby grant to Grantee a perpetual easement ("Easement") in and across the Airspace Parcel for passage of lawful flight operations, including take-offs and landings, and for all sound, vibration, discomfort, inconvenience, intrusion, interference with use and enjoyment, and any consequent reduction in market value, all due to noise caused directly or indirectly by the lawful operation of aircraft at or near the Airport, regardless of frequency, time of day, type of aircraft, or proximity to the Property.
- 3) The Easement is granted in perpetuity unto said Grantee and its successors and assigns, until said Airport shall be abandoned and shall permanently cease to be used for airport, heliport or helipad purposes. For purposes of the preceding sentence, no temporary suspension or cessation of aviation operations because of adverse weather conditions, natural or man-made disaster, war, war-like or terroristic acts or conditions, interruption in the availability of navigational, radar, air traffic control, electrical or communications utilities, construction or maintenance and repair operations or similar circumstance shall be construed as an abandonment of use for airport, heliport or helipad purposes.
- 4) The Easement shall run with the land and be appurtenant to and for the benefit of all of the real property comprising and known as the Airport. The Easement shall also be in gross for the benefit of Grantee, its successors and assigns, and all other persons and entities that directly or indirectly use the Easement as a result of any type of use of or activity at the Airport, but do not own an interest in land with respect to the Airport.
- 5) This Easement does not exclude the making of claims by the Grantor(s), or those claiming under the Grantor(s), for physical or personal injury caused by any air traffic utilizing the Easement which does actual physical damage to the Property or persons located therein by coming into direct physical contact with the Property or persons located therein. This Easement also does not exclude the Grantor(s) from seeking to participate in any future Federal Aviation Administration noise mitigation programs offered by Grantee for which Grantor(s) may be eligible due to changes to the 2017 Future DNL Contour.
- 6) The Grantor(s), for their heirs, successors, and assigns, do hereby covenant that they are lawfully seized of an indefeasible estate in the Property; and they have the right to grant and convey the Easement; and that Grantor(s) will warrant and defend unto the Grantee and its assigns, forever, the quiet and peaceable use and enjoyment of the Easement.
- 7) In the event any section, paragraph, sentence or clause of this Easement shall be found to be illegal or unenforceable under the laws of Connecticut, such defect shall not be construed as invalidating any other section, paragraph, sentence or clause of this Easement.

IN WITNESS WHEREOF, the Grantor(s) have executed this instrument this _	day of
, 2016.	•

In the presence of:	
Name:	Name:
Name:	Name:
STATE OF CONNECTICUT )	
	) ss. at, 2016
COUNTY OF NEW HAVEN )	
	rsigned officer, personally appeared, to me known (or adequately proven) to be the ing instrument and acknowledged the same to be
By:	
Printed Name:	
Notary Public	My commission expires:
Commissioner of the Superior Court	

# EXHIBIT A [Legal Description]

# SCHEDULE 1 [Schedule of sound insulation work]

#### BURLINGTON INTERNATIONAL AIRPORT

## NOISE COMPATIBILITY PROGRAM TECHNICAL ADVISORY COMMITTEE MEETING SUMMARY (#2)

**December 5, 2017** 

#### **BTV STAFF/CONSULTANTS:**

Nic Longo, BTV (Chair) Gene Richards, BTV (Vice Chair) Amanda Clayton, BTV Sarah Degutis, Jones Payne Group Diane Carter, Jones Payne Group Brad Nicholas, HMMH Kelly Colling, BTV

#### TAC MEMBERS

Pat Nowak, Airport Commission & South Burlington City Council

Kevin Dorn, South Burlington City Manager

Paul Connor, South Burlington City Planner

Steve Wisloski, South Burlington School Board

David Young, South Burlington School Board

Tim McKenzie, South Burlington Business Association

Col. John Johnston, Vermont Army Guard

Col. Chris Tomilawicz, Vermont Air Guard

Richard Lizzari, Vermont National Guard

Jessie Baker, Winooski City Manager

Sean McMann, Winooski School District Superintendent

George Maille, South Burlington Resident TAC Representative

Carmine Sargent, South Burlington Resident TAC Representative

Charlie Baker, CCRPC

Frank Cioffi, GBIC

Seth Bowden, GBIC

Ron Bazman, FAA

Richard Doucette, FAA [via telephone]

Tim McCole, Heritage

Patrick Gallivan, St. Michael's College

Bob McEwing, Essex

#### **PUBLIC ATTENDEES:**

Helen Riehle, South Burlington City Council

Gary Shepard, South Burlington

Philip Hanigan, South Burlington

Kathy Grzywna, South Burlington

Jon Watt, South Burlington

Julie Robinson, South Burlington

Bill Keogh, Airport Commission Steve Marriott, South Burlington Loretta Marriott, South Burlington Stevisbindu Zeno, South Burlington E. Diner, South Burlington Bruce Bevins, South Burlington R.J. Bleau, South Burlington Barbara Sirvis, South Burlington Miranda Jurswad, The Other Paper

#### 1.0 WELCOME and OVERVIEW

Nic Longo, Deputy Director of Aviation, opened the meeting at 5:04 PM. Introductions were done. Mr. Longo explained the property acquisition program (part of the Noise Compatibility Program) is wrapping up. All offers to property owners will be complete by the end of the year. Airport staff is working with Richard Doucette, FAA, to fund the update of the Noise Exposure Map (NEM) as quickly as possible. The NEM will work concurrently with the Noise Compatibility Program (NCP).

Sarah Degutis, Jones Payne Group, reviewed the purpose of the Technical Advisory Committee (TAC) which is advisory to the airport. TAC members will give input and comment on the NCP and NEM, and bring information back to their respective organizations. There will be a public hearing process after the series of TAC meetings are complete and there is a draft of the NCP.

#### 2.0 PUBLIC FORUM AND COMMENTS

The following was discussed:

- Updated NEM including the F-35 Nic Longo said the 2016 NEM was reviewed by the FAA they are still looking at funding availability. The updated map will include F-35 data if it is funded
- Concern about accepting noise abatement measures now when the noise level could return when the F-35 planes arrive Diane Carter explained with the sound insulation program simulated noise is used and internal readings are taken. At the point in time when the sound insulation program was started the sound level was based on the F-16. If the program starts after the F-35 then that sound level will be used. Brad Nicholas added the FAA provides a spectrum that is representative of the noise and if the future NEM is approved by the FAA then it can be used.
- Concern that homes cannot be saved if the noise increase Diane Carter explained the intent is to do a map update. The process is long and funding has not yet come through from the FAA. There will be an update on the NEM funding status at the January TAC meeting.
- Noise performance profiles introduced with the new NEM and arrival/departure paths Brad Nicholas said the consultants will work with the Air Force. The maps are updated to reflect the year of submission, base year, and five years out.

Nic Longo added the airport does not have the funding yet from the FAA for the NEM, but there will be a kickoff meeting open to the public.

- Schedule for removal of the houses purchased Nic Longo said the removal is hoped to be complete by spring of 2018.
- South Burlington doing a sound study at the Chamberlin Elementary School –
  David Young, South Burlington School Superintendent, explained there is
  concern for the incidental noise levels from the F-35 planes on the children at
  Chamberlin School so the study will do an assessment based on the F-16 traffic to
  contrast with the F-35 data. Nic Longo said the airport will work with South
  Burlington and the school district to help in following the rules and regulations in
  the process.
- Doing a profile of low power, non-afterburner take off plus afterburner at reduced, normal, and maximum attack to assess vibrations through the area The suggestion will be taken under advisement.

#### 3.0 CHAPTER 2 – LAND USE UPDATE FOR NCP

Sarah Degutis reviewed:

- Chapter 2 discusses the history of the NEM (background information).
- Land uses show properties acquired by the airport, changes in zoning, and changes in the use group.
- These metrics are included in the 2015 NEM and will be updated to reflect any changes in land use since the 2015 NEM was published.
- Homes within the 65 dB contour have been reduced by approximately 60 houses, due to land acquisition since the 2015 NEM was published.
- To date the land acquisition has occurred in South Burlington.

#### 4.0 CHAPTER 3 – EXISTING NCP

Brad Nicholas reviewed:

- Chapter 3 looks at the existing NCP measures. A review of the existing measures and their status was discussed.
- Airport operations measures were reviewed.
- Taxiway Golf was proposed to be extended so aircraft taxi farther north and farther from Airport Drive to reduce noise levels. This project has been phased with the final phase occurring this year.
- Terminal power and ground power units (portable) provide ancillary power to aircraft. The goal is to have electrical power in place to eliminate the need for ancillary power sources. To date nine of 11 gates have ground power.
- Monitoring measures were reviewed
- Land use measures were discussed, these include acquisition/relocation (existing program) and cover the 65 dB contour.
- Land Acquisition has been the primary measure implemented to date.
- Sound insulation has not implemented, and will not be until the current acquisition program is complete.

- Easements are not yet implemented because the insulation program has not been implemented.
- The local land use jurisdictions have not implemented overlay zoning to restrict land uses within the noise areas
- Funding from the FAA was used for the acquisition program rather than easement acquisition for new development.
- A regional real estate organization has implemented real estate disclosures on land within the noise contours for impacts from Air National Guard aircraft as shown in the Environmental Impact Statement.

## COMMENTS & QUESTIONS

George Maille asked if generators heat the aircraft and how the noise will be assessed. Kelly Colling said there is potential that heaters are used on the south end of the airfield to prevent aircraft from freezing through the night. Brad Nicholas noted heat generators are part of aircraft operation. Typically most noise maps do not include taxiway noise, but this noise is included in the BTV NEM. Nighttime bi-direction runway use cannot be implemented because the air tower is closed from Midnight to 5:30 AM, but night operations are reflected in the NEM. The airport cannot restrict operations because it is part of the federally funded transportation system. Nic Longo said the airport can work with the FAA and Air Traffic on implementation of the nighttime system and increased tower hours.

Ron Bazman, FAA Air Traffic Control, explained the tower closes at Midnight to reopen at 5:30 AM. When the town is open and if weather permits, including wind, operations can be modified to bring traffic in or depart toward less densely populated areas. The control facility when the tower is closed is in Nashua, NH and the controllers there pick the most advantageous runway to use based on the weather. From the FAA standpoint, the tower will provide service. The airport cannot deny use of the runway to an aircraft.

Jessie Baker asked if the NCP will reflect what is being done to mitigate noise in the nighttime hours. Sarah Degutis said this is not being done currently, but could be a policy in the future. Brad Nicholas stated that all existing operations are accounted for in the NEM modeling. He added the voluntary limits on the C-5A training is not an agreement in place. The airport discourages C-5 training due to the limitation of the runway and potential damage to lighting. C-5A units are typically from out of state. It was noted a flight information handbook is provided to pilots by the local Air National Guard. Only three practice approaches are allowed. Commanders are contacted for lack of compliance to the rules. F-16 flights depend on the mission and tactical scenario. The F-16s fly two shifts for safety purposes. Practice flights are of two or four planes. Helicopter training operations continue. The airport's monitoring and review of the NEM and NCP has occurred. The process is being revisited now.

Paul Connor asked where in the NCP there is an assessment of the various measures and why there is only partial implementation. Brad Nicholas said Chapter 4 will look at what should be carried forward or modified.

George Maille asked who informs the airport of changes in the aircraft configuration for purposes of updating contours in an NEM. Brad Nicholas said the NEM is certified by the Airport and accepted by the FAA. There is no formal process. It is up to the airport to bring to the FAA's attention that an update is needed. Nic Longo added that is the current situation. The airport sees changes coming and wanted to update the documents. Brad Nicholas said analysis of the data on flight track monitoring will start within in the next six months. Nic Longo said the information will be public. Hopefully the flight track data will be online. Ron Bazman said flights in/out of the airport can be viewed real time now.

A woman asked for clarification of why she did not receive an acquisition offer for her house which is within the sound contour line. Sarah Degutis explained houses within the contour were identified and offers made to the most impacted houses and based on the available funding.

A woman asked what can be done if her house is shown on the Noise Contour Map but it is not located within 65 DNL contour, and the noise is too loud for her. Brad Nichols said there are no mitigation programs today for that situation.

There was discussion of the role of the TAC to provide input on what program is wanted by the community. The FAA must decide if the program is acceptable and qualifies for funding. The FAA steps must be followed which include looking at the existing program and the measures that are in place, fully or partially, or not implemented.

A gentleman said he would like to see completion of the measures rather than "not implemented".

### 5.0 AVIGATION EASEMENTS

Diane Carter, Jones Payne Group, stated the Airport can recommend as part of its Noise Compatibility Program that property owners grant an avigation easement (easement) in exchange for sound insulation, however, it is not a requirement of the FAA. The easement runs with the land and will transfer if the property is sold. The current NCP requires an easement for sound insulation. If the updated program requires an easement the property owners must grant an easement to receive sound insulation. Homeowners will not have option to choose whether to grant an easement.

Avigation easements in general grant the right of aircraft to fly over the property but may include other requirements regarding items like light, emissions and dust. The technical memorandum provided to the committee discussed the requirement of easements for residential properties. There were examples of current avigation easements used by other airports in the New England Region included in the technical memorandum. Ms. Carter asked the committee review and consider what type of language they would like to see in an easement for BTV.

Ms. Carter discussed there are advantages and disadvantages to requiring an avigation easement. The advantages include providing notice to future property owners of the noise environment regarding aircraft operations. Additionally, should the NCP recommend other types of mitigation program like sales assistance or purchase assurance, the FAA requires an easement for those program. If there is not easement for sound insulation, it could create a checkerboard of easements in a neighborhood. If all programs require an easement, then the entire area will be equal. The disadvantages are owners are giving up their "rights" in exchange for the mitigation. Some people feel this may be harmful to the sale of their property.

With regard to public buildings, like schools, the Airport can recommend an easement in exchange for sound insulation. Typically the public buildings are owned by the same jurisdiction that controls the Airport and may choose not to impose an easement on its own buildings.

#### COMMENTS & QUESTIONS

Paul Connor asked what happens if there are dramatic changes after the avigation easement is signed. Diane Carter said a provision can be added that the property owner is not precluded from participating in a future program or mitigation. Triggers can be built into the easement language to address changes. The easement can be written just for noise. It is recommended to have one easement to cover all of the programs rather than having separate easements for separate programs (i.e. sound insulation vs. sale assistance). There will be further discussion of avigation easements through this process but TAC members should be thinking about what they want to see in an easement.

Paul Connor questioned having easements if they are not required for the sound insulation program. Diane Carter said an easement is not required for sound insulation, but there are some programs that require easements. The TAC needs to discuss if there is an issue with having some houses in the neighborhood with easements and some without an easements. The easement will notify the new owner that there has been insulation and the house is in an area of impact. Nic Longo said the airport wants to do due diligence by showing the easements and if easements are needed to be part of the program.

Paul Connor asked for confirmation that the purchase assistance program is where the airport buys the house, insulates, and sells the house with an avigation easement attached. Diane Carter confirmed this. If the homeowner does not want to sell the house and the airport does not buy the house then an easement is not needed.

A woman asked if different communities can decide if they want avigation easements. Diane Carter said federal guidance says if the program requires an easement then easements are required. Ms. Carter will further research if communities can have different requirements for easements.

There was continued discussion of avigation easements. Paul Connor asked about the upside of having an easement. George Maille commented requiring an easement is like

eminent domain. Gene Richards urged everyone to have their attorney review the easement. Nic Longo said the discussion on easements was started now because there will be easements and what is in the easement language needs to be determined. Paul Connor said the easement must address changes that will occur in the future.

### 6.0 TAC QUESTIONS & COMMENTS

Questions and comments on the NCP chapters and documents should be forwarded to the consultants and the airport administration.

Diane Carter said it is unique for an airport to welcome input on an easement. This will demonstrate to the FAA that this is an important topic. Community involvement adds weight for the FAA.

Request was made for examples of other programs and a description of the sales purchase and purchase assistance programs. Diane Carter said the programs are on the website. Gene Richards said descriptors and definitions at a high level can be provided at the next meeting. Sarah Degutis will send links to the items on the website to the TAC.

Kevin Dorn announced a survey was done by South Burlington to gather feedback on the city of South Burlington as a whole. There were 131 respondents to the survey.

## 7.0 WRAP UP & ADJOURNMENT

Future Meetings & Agenda Items:

- January 23, 2018 NCP Chapter 4 Airport Operation Measures & Land Use Measures
- March 13, 2018 NCP Chapter 4 Land Use Measures continued
- May 2018 TBD
- August/September 2018 Public Hearings

With no further business and without objection the meeting was adjourned at 7:10 PM.

# BTV NCP TAC Meeting #3 January 23, 2018

### **BURLINGTON INTERNATIONAL AIRPORT**

# Technical Advisory Committee - Sound Program, NCP Update DATE: January 23, 2018

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
14	SOTH BOWAIN	6781 C	fetherement.
15	Exercer MAILLE	38 LOGNOSDST St. Buch	LASTEXITE DOMCKST
16	CHARLIE BAKER	CERPL	chaker@ccrpcit.org
17	Steve Visiboli	So Burl. School Dist	Swisloski O slasbhoolsn.
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### **BURLINGTON INTERNATIONAL AIRPORT**

# Technical Advisory Committee - Sound Program, NCP Update DATE: January 23, 2018

**LOCATION: Burlington International Airport, Conference Room #3** 

**SIGN-IN SHEET** 

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
1	Callens Tresur	V17AV6	2802 660 5213
2	Jessie Bakar	Winooski	Jbatere Winoskivt.urg
3	Steve MARRIOTT	13 mills SBurl.	9 marriot )
4	John Johnstn	VTARNG	John.m. Johnsty mile Mailimil
5	Carmine Sargett	21 Elizabeth St.	802-658-1164
6	JEREMY KING	VERMONTGAS Systems Ever	MS SKINGELERMON SWKINGUTO
7	Jennorz	Efficiency UT	jnarevercions
8	Frankcioffi	GBIC	Frankevementorg
9			
10			
11			
12			
13			

Please note that this sign-in sheet and any information provided on it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.



## **AGENDA**

## BTV Noise Compatibility Program (NCP) Technical Advisory Committee Meeting

January 23, 2017

5:00 p.m. - 6:30 p.m.

Conference Room 3

Call in # for those who are unable to attend: 712-775-8972 Code: 235681

5:00 – 5:10	Welcome and overview of agenda
5:10 – 5:20	Public forum and comment period
	Chapter 4 – Recommended NCP Revisions (Part 1)
5:20 – 5:35	Airport Operations Measures Status
5:35 – 5:45	Monitoring and Review Elements
5:45 – 6:15	Land Use Measures – Residential Sound Insulation
6:15 – 6:30	Technical advisory committee guestions and comments





# **BTV Noise Compatibility Program Update**– Technical Advisory Committee

January 23, 2018



# **Purpose of TAC**

- The TAC is advisory to the City solely for purposes of the BTV Part 150 Study, including:
  - Review of study inputs, assumptions, analyses, documentation, etc.
  - Input, advice, and guidance related to Noise Compatibility Plan (NCP) development
- The City shall respect and consider TAC input, but must retain overall responsibility for the Part 150 Study and NCP recommendations
- The TAC and City recognize FAA is responsible for accepting Noise Exposure Map (NEM) and NCP submissions and for approving NCP measures
- TAC members represent the interests of their organization and/or constituents
- TAC members are expected to provide two-way communication between the City and their organizations / constituents



# Agenda

Public forum and comment period

Chapter 4 - Recommended NCP Revisions (PART 1)

- Airport Operation Measures
- Monitoring and Review Elements
- Land Use Measures Sound Insulation

TAC questions and comments period

# **Public Forum and Comment Period**

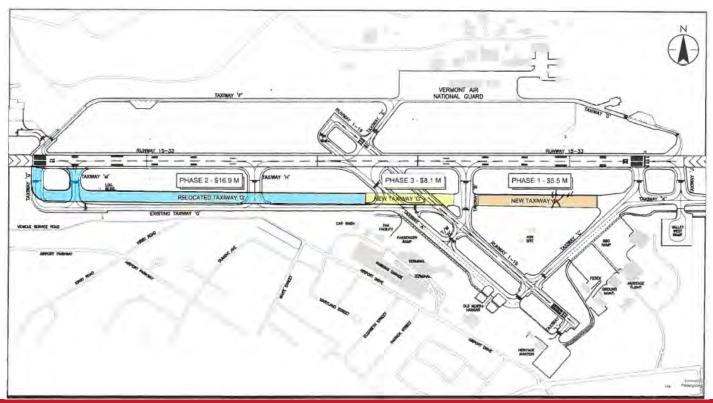


# **Airport Operations Measures**

No new measures are planned to be added to this NCP update



- Extension of Taxiway G
  - This measure will be completed by 2020.
  - The primary noise reducing component of this measure, Taxiway K, is completed and currently in use.





- Terminal Power Installation and APU/GPU Restrictions
  - All 9 jet bridges currently have power hookups.
  - The airport is currently reviewing implementation feasibility for restrictions on APU/GPU usage for aircraft utilizing the jet bridges.
  - Typical operator preference is to use ground power hookups where they are available.



- Some additional ground noise limiting measures are currently in use
  - Minimized usage of the southernmost jet bridges.
     These are reserved as auxiliary positions since they are the only two jet bridges which aren't shielded by the terminal structure.
  - For aircraft utilizing the southernmost jet bridges, engine startups are prohibited until the aircraft is pushed back to Taxiway Alpha.



- Nighttime Bi-direction Runway Use
  - To accomplish noise mitigation efforts tower needs to be fully operational, current infeasibility due to tower staffing hours.
  - Will be reviewed if towers hours are expanded at a future time.



**Monitoring and Review Elements** 

No new measures are planned to be added to this NCP update



## **Updates on existing NCP monitoring and review measures**

- Ongoing Monitoring and Review of NEM and NCP Status
  - Provides circumstances for revision of the NEM/NCP
    - NCP update is underway &
    - NEM update is forthcoming
  - Recommend continuation of the TAC as a Noise Committee
    - In place and planned to continue going forward
  - Purchase of a permanent noise monitoring system
    - Currently, there are no plans to have a noise monitoring system installed.



## **Updates on existing NCP monitoring and review measures**

- Flight Track Monitoring System
  - A BTV system is forthcoming. The airport is currently reviewing options.
  - Will allow neighbors to access flight tracking data
  - Neighbors will have the ability to report online any concerns and the airport will be able to follow up with recorded flight data.
  - Provides BTV the ability to analyze flight data and work with FAA if appropriate on airport operations



## Land Use Measures – Sound Insulation

## **Land Use Measures**

- The primary purpose of this NCP update is to examine and revise the land use measures.
- The first measure to be examined will be sound insulation.
   The remaining measures will be reviewed in future TAC meetings.
- Review of residential sound insulation programs will include:
  - Determining Eligibility
  - Development of Policy and Procedures
  - Implementation of Program



# **Sound Insulation – Determining Eligibility**



### Federal Requirements

- A sound insulation program may be implemented if it is contained in an approved 14 CFR part 150 Noise Compatibility Program (NCP).
- The identified eligible properties must be within the 65 dB DNL noise level or higher for which the land use is not considered to be compatible.
- Properties located below this threshold will <u>not</u> be eligible for mitigation funding unless a lower local standard is adopted by the jurisdiction or the FAA has approved "block rounding" in the NCP.
- Airport sponsor must comply with the eligibility criteria and program requirements set forth in AIP Handbook FAA Order 5100.38D Appendix R.



## **Acoustical Test Plan (ATP)**

- Development of an ATP is the first step in developing a sound insulation program.
- ATP includes:
  - Protocols for the initial testing
  - FAA review of initial testing results
  - Special circumstances
  - Final testing phase protocol

## **Acoustical Test Plan (ATP)**

- Key steps in an ATP include:
  - Neighborhood surveys
  - Pre-construction acoustical testing
  - Determination of compatible vs. non-compatible structures
  - Full sound insulation package design for eligible structures
  - Pilot Phase- install sound insulation package at sample set of eligible structures
  - Post-construction acoustical testing



## **Eligibility Testing / Pre-testing Process**

- Eligibility Criteria
  - Property title search must be completed, verifying ownership
  - Additional conditions include:
    - Structures typically must have been constructed prior to October
       1, 1998
    - Structures typically must be located within the current FAAapproved DNL 65 dB noise contour
    - Structures must be experiencing a logarithmic (energy) *average* interior DNL of 45 dB or greater in habitable rooms
    - \* AIP Handbook allows some specific exceptions to the first two guidelines above that, if needed, would be coordinated with FAA including block rounding



## Performing an artificial noise source test

- PA type loudspeaker with a signal generator are placed outside of the home and an artificial noise is transmitted to the exterior of the home.
- Measurements are taken on the inside and outside of the home with the speaker on and off in all habitable rooms. (bedroom, living, dining, family kitchen, study). Non-habitable rooms include bathrooms, foyers, laundry and garage.
- These measurements are used to calculate the Noise Level Reduction (NLR) for the home.
- Homes testing at 45 dB DNL or higher will be eligible for sound insulation.
- Homes testing lower than 45 dB DNL will not be eligible for sound insulation.





Following approval of the ATP, the airport sponsor will develop a policy and procedures manual to describe the programs:

- Purpose
- Goals and typical modifications
- Project planning and management
- Construction contract bid and award cycle
- Construction process
- Eligible spaces
- Architectural, mechanical, electrical and other types of treatments
- Building code requirements



### **Prioritization of Homes**

Prioritization will begin with the homes in the highest noise levels and working out towards the program boundary.

Program may also use the following criteria to help with prioritization:

- Length of residency
- Ownership vs. rental property
- Contiguous blocks vs. by noise level



### **Pace of Program**

The pace of the overall program is dependent upon:

- FAA grant cycles and availability of funding
  - First grant for design and bidding
  - Second grant for construction
  - Typical design, bid, construction cycle is approximately 12-18 months depending on the size of the construction contract
- Airport sponsor will work with FAA's Airport District
   Office (ADO) to develop a capital programs work plan.



## **Types of Treatments**

Allowable sound insulation measures include:

- Replacement of windows
- Replacement of doors
- Addition and/or replacement of caulking and weather stripping
- Installation of central air-conditioning or ventilation systems where none exist







## Types of treatments (cont.)

Additional measures may be included as part of a treatment package with approval from the FAA's local ADO:

- Addition of attic and/or wall insulation
- Addition of extra layers of wall and/or ceiling board
- Removal or treatment of through-wall A/C units
- Removal mail slots, pet doors, milk chutes







## **By Noise Contour Level**

 Sound insulation programs generally target a postconstruction NLR values as follows:

Contour Range (DNL)	Post- Construction NLR Value	Sound Insulation Treatments to Obtain Post- Construction NLR Value
65-70 dB	30 dB	Basic treatments as outlined
70-75 dB	35 dB	<ul> <li>Windows and doors may require upgrades to commercial or custom made products.</li> <li>Additional treatments to exterior walls and ceilings may be required.</li> </ul>
75+ dB	40 dB	<ul> <li>Not recommended for residential:</li> <li>Commercial products required</li> <li>Double wall construction or addition of multiple layers of gypsum board may be needed</li> <li>Preferred mitigation method is acquisition</li> </ul>



## **Building Code Compliance**

- Understanding the local/state building codes is the key component to the implementation.
- Appendix R states which treatments are grant eligible. The airport sponsor, working with local building officials will determine what will be required to obtain a building permit.
- Code required improvements may not be reimbursable.
- Some items that may be required by code but are not necessary for the reduction of interior noise levels include:
  - Smoke detectors
  - Carbon monoxide monitors
  - Electrical upgrades
  - Egress





## **Implementation of Program**

Each phase (typically 50 units per phase) will follow these steps:

Pre-Design

**Invitation Letters** 

**Application and Initial Survey** 

Homeowner Outreach Meeting

**Pre- Acoustical Testing** 

Design

**Assessment Visit** 

**Design of Treatments** 

Homeowner Review and Participation Agreement

**Development of Construction Documents** 





## **Implementation of Program**

Bid and Award

- Public Bid is Issued to Contractors who are:
  - Insured
  - Background Checked
  - Bonded/Licensed
- City of Burlington awards to lowest responsible bidder
- Notice to Proceed is issued

## **Implementation of Program**

#### Construction

- Contractor Verifies Products and Measurements
- Contractor Orders Products
- Construction Begins Notify Homeowners 6-8 weeks before work starts
- Each home takes approximately 30 days

### Post-Construction and Post-Acoustical Testing







# **TAC Preliminary Topics and Schedule**

## TAC Meeting 4

March 13, 2018

NCP Ch. 4 - Part 2

- Land use measures sound barriers/buffers
- Land use measures sales assistance / purchase assurance
- Land use measures real estate disclosure
- Land use measures land acquisition and relocation
- Land use measures easement acquisition

Discussion an feedback from TAC 3

## TAC Meeting 5

May 2018

Discussion and feedback from TAC 4

# **Public Hearing and Comment Period**

estimated August – September 2018



# **TAC** questions and comments

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BURLINGTON INTERNATIONAL AIRPORT
PART 150 NOISE COMPATIBILITY PROGRAM UPDATE
TECHNICAL PAPER – RESIDENTIAL SOUND INSULATION PROGRAMS
JANUARY 9, 2017

#### **Residential Sound Insulation Programs**

The purpose of a Residential Sound Insulation Program (RSI Program) is to reduce interior noise levels in a home. This is accomplished by applying acoustical treatments designed to reduce aircraft noise. The treatments include, but are not limited to, upgrading windows, doors and ventilation systems. While sound insulation cannot reduce the noise in the surrounding area, it does provide a place for individuals to be able to enjoy their home and children to be able to study.

The process for designing and implementing a sound insulation program is defined by the Federal Aviation Administration (FAA) in accordance with Appendix R "Noise Compatibility Planning/Projects" of the Federal Aviation Administration Order 5100.38D Airport Improvement Program Handbook<sup>1</sup> (AIP Handbook)

The RSI Program offers a selection of treatments that are tailored specifically to each dwelling. Acoustical treatments include standard door and window styles and finishes, as well as alternative modifications, when required. Owner's selections, which will be incorporated into the proposed modifications, include choice of style, color and finish from available manufacturer's offerings. Post-construction average interior noise levels should not exceed a measurable 45-decibel (dB) Day-Night Average Sound Level (DNL) in the habitable portions of the dwelling. A 5-dB improvement relative to pre-construction levels is also a stated objective of the RSI Program.

#### 1.0 Determining Eligibility

#### 1.1 Federal Requirements

An airport sponsor may implement a RSI Program if it is contained in an approved 14 CFR part 150 Noise Compatibility Program (NCP).

The identified eligible properties must be within the 65 dB DNL noise level or higher for which the land use is not considered to be compatible (49 USC § 47502, as implemented by Table 1 of Appendix A in 14 CFR part 150). Properties located below this threshold will not be eligible for mitigation funding unless a lower local standard is adopted by the jurisdiction or the FAA has approved "block rounding" in the NCP.

Prior to the implementation of the RSI Program, the airport sponsor must comply with the eligibility criteria and program requirements set forth in Appendix R.

<sup>&</sup>lt;sup>1</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", effective date September 30, 2014.

#### 1.2 Developing an Acoustical Test Plan

The first step in developing an RSI Program is for the program sponsor to develop an Acoustical Testing Plan (ATP) for FAA review. The ATP is to include protocols for the initial testing, FAA review of initial testing results, special circumstances and the final testing phase. Testing methods for determining interior noise levels are outlined in the FAA's adopted guidance<sup>2</sup> per Advisory Circular 150/5000-9A, Announcement of Availability – Report No. DOT/FAA/PP/92-5, Guidelines for the Sound Insulation of Residents Exposed to Aircraft Noise, issued in 1992. The key steps in an ATP for a residential sound insulation program are:

- **Neighborhood Surveys**: Housing surveys are first conducted to characterize neighborhood homes by type (e.g. age, size, construction type, etc.), and a representative sample of the various types identified is then selected to be included in the initial testing phase<sup>3</sup>.
- **Pre-construction Acoustical Testing**: Measurements of existing acoustical performance of the structure are conducted using either an artificial noise source or actual in-situ aircraft noise events, for determining the existing interior DNL.
- **Determine Compatible and Non-Compatible Structures**: Analyze test data to determine if the average of the aircraft interior noise levels in all habitable rooms is greater than, equal to or less than 45 dB DNL.
- Determine Required Sound Insulation Improvement: Determine the improvement in outdoor-toindoor noise level reduction (NLR) needed to provide an interior noise level that meets FAA requirements.
- **Design Full Sound Insulation Package for Eligible Structures**: Design primary acoustical treatments that will meet FAA noise reduction goals for non-compatible structures. Separate sound insulation packages are required for residences constructed with siding and residences constructed with brick<sup>4</sup>. In addition to lowering average interior noise levels from aircraft to below 45 dB DNL, acoustical treatment packages must also be designed to achieve an improvement in the NLR of at least 5 dB<sup>5</sup>.
- Design Alternate Treatment Package for Eligible Structures: Design secondary treatment packages
  for compatible structures that are eligible for purposes of "neighborhood equity" or that require

<sup>&</sup>lt;sup>2</sup> "Guidelines for the Sound Insulation of Residences Exposed to Aircraft Operations", which is attached to FAA Advisory Circular AC150/5000-9a

<sup>&</sup>lt;sup>3</sup> FAA Order 5100.38D Appendix R, Table R-4 "Pre- and Post-Testing Criteria for Noise Insulation Projects", c. "First Step – Initial Testing" Paragraph (3): "Once the sponsor has characterized the diversity of the residences in the noise contour, it will select a representative sample of each type of similarly-constructed residences for testing, which based on industry review is typically 10% to 30%. Testing in this case means that the sponsor develops and installs a sound insulation package that the sponsor believes will reduce the interior noise level in the residence for each type of construction."

<sup>&</sup>lt;sup>4</sup> FAA Order 5100.38D Appendix R, Table R-4 "Pre- and Post-Testing Criteria for Noise Insulation Projects", c. "First Step – Initial Testing" Paragraph (4): "In a neighborhood where the residences are made of either brick or wood siding, the sponsor will develop two different packages – one for the brick residences and one for the siding residences."

<sup>&</sup>lt;sup>5</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", g. "Noise Mitigation Measures for Residences" Paragraph (4): "The sound insulation package must provide a reduction in indoor noise level of at least 5 dB and bring the average interior noise level below 45 dB."

the installation of continuous positive ventilation in order to receive the benefits of the structure's existing sound insulation by having windows and doors always closed.

- **Install Sound Insulation Packages**: Once approved by the FAA, the designed primary sound insulation packages are installed at the sample set of eligible structures.
- **Post-Construction Acoustical Testing**: Following the installation of sound insulation packages, structures that had primary acoustical treatments installed are re-tested to determine if noise reduction goals are met as required by the FAA.

#### 1.3 Eligibility Testing/Pre-testing Process

#### 1.3.1 Eligibility Criteria

When an owner applies to participate in an RSI Program, a property title search may be completed to verify ownership and to make sure there are no tax liens, easements or other encumbrances associated with the property which would cause it to be ineligible. Additional conditions of the RSI Program follow current FAA guidelines, as currently described in Appendix R, Table R-6 of the AIP Handbook:

- Structures typically must have been constructed prior to October 1, 1998
- Structures typically must be located within the current FAA-approved DNL 65 dB noise contour
- Structures must be experiencing a logarithmic (energy) <u>average interior DNL of 45 dB or greater in</u> habitable rooms with all prime and storm windows and doors closed

The AIP Handbook allows some specific exceptions to the first two guidelines above that, if needed, would be coordinated with FAA including block rounding.<sup>6</sup>

#### 1.3.2 Pre-construction Testing Process

Outdoor-to-indoor NLR measurements are conducted using either an artificial noise source e (i.e. loudspeaker) or actual aircraft noise events. Artificial noise source testing has a number of practical advantages over aircraft overflight noise testing, which have resulted in it becoming the most commonly employed test method. The artificial source method, compared to the actual aircraft method, limits interruption to the property owners and inhabitants/users of the tested interior spaces. An artificial noise source allows measurements to be made at the properties during a brief measurement period, independent from the reliance on aircraft overflights and without the need for multiple sound level meters to simultaneously measure aircraft noise in all habitable rooms. The aircraft overflight method generally requires that no persons be present inside the home for the several hour of the test duration.

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<sup>&</sup>lt;sup>6</sup> Appendix R of the AIP Handbook allows some exceptions as discussed in Section R-9 "Block Rounding," R-10 "Neighborhood Equity." In addition, Table R-6, g(7) and i(6) states "The structure must have been built prior to October 1, 1998 unless the sponsor has demonstrated to the ADO that no published noise contours existed at that time. New non-compatible land uses created by subsequent airport development may also be eligible for funding consideration. The October 1, 1998 date is based on the FAA Final Policy on Part 150 Approval of Noise Mitigation Measures: Effect on the Use of Federal Grants for Noise Mitigation Projects, 63 Federal Register 16409 (April 3, 1998)."

During an artificial noise source test, an acoustical consultant uses a specialized field monitoring kit that includes a signal generator and public announcement (PA) type loudspeaker to produce a noise source of equal energy in each octave band or one-third octave band (known in the acoustics field as "pink noise") at an approximate overall sound level of 90 to 100 dB as measured at the exterior building façade under test.

The loudspeaker is vertically positioned either on a tripod or placed on the ground unless there is compelling evidence that the roof/ceiling element of the room under test has the potential to contribute to the interior sound level from aircraft operations. Examples of compelling reasons include: existence of weak elements within the roof/ceiling structure, such as sky lights; relatively light weight materials to make up the roof structure; limited airspace between the roof and ceiling, e.g., vaulted ceilings and flat roofs; and limited or no use of insulation in the space between the roof and ceiling. In these instances, the speaker will be lifted above the roofline of the home to obtain both exterior façade and roof exposure through the use of an industrial grade hoisting device, such as a bucket truck, scissors lift or mobile crane.

With the loudspeaker placed to provide sufficiently uniform sound across the façade, room, or element, octave band or one-third octave band sound level measurements are made both on the exterior and in the interior of the structure using both time and spatial averaging of sound levels. Additional measurements are conducted without the loudspeaker in operation to provide background or ambient sound levels.

#### 2.0 Development of Policy and Procedures

Upon FAA approval of the ATP, the airport sponsor will develop a policy and procedures manual (PPM) which will describe the RSI Program's purpose, goals and typical modifications, project planning and management, construction contract bid and award cycle, the construction process, eligible spaces, architectural, mechanical, electrical and other types of treatments, and building code requirements.

#### 2.1 Prioritization of Homes

The PPM will define how to prioritize homes beginning with the homes in the highest noise levels and working outward to the RSI Program boundary. Many programs also use the following criteria:

- Length of residency
- Ownership vs. rental property
- Contiguous blocks vs. by noise level

#### 2.2 Pace of Program

The pace of the RSI Program is defined by the airport sponsor's ability to match grant funding from the FAA as well as the FAA's ability to provide grant funding. The airport sponsor will work with the FAA's Airports District Office (ADO) to develop a capital programs work plan.

Sound insulation programs are often developed based upon FAA grant cycles. Typically, a grant is issued for the design and bidding of a group of homes. A second grant is issued for the construction of the homes based upon the lowest responsible bid received by the airport sponsor. A typical design, bid and construction cycle is approximately 12-18 months depending upon the size of the construction contract.



#### 2.3 Building Code Compliance

Understanding the local and state building code is a key component to the implementation. Appendix R is very specific on the types of treatments that are eligible for grant reimbursement. Understanding what, if any items, may need to be undertaken to meet code compliance is necessary to inform the program participants who may be responsible for these costs. Examples of the types of items that may be required by code but are not necessary to the reduction of interior noise levels are:

- Smoke detectors
- Carbon Monoxide monitors
- Electrical upgrades
- Egress

Working with the local building officials, the airport sponsor can determine what will be required in order to obtain a building permit. Any potential issues can be discussed with the owner during the design phase of the process.

#### 2.4 Types of Treatments

Per Appendix R of the AIP Handbook, allowable sound insulation measures include the replacement of windows and doors, the addition or replacement of caulking and weather stripping, and the installation of central air-conditioning or ventilation systems in structures without an existing system<sup>8</sup>. Central air-conditioning or ventilation systems are a necessary component in sound insulated structures, as they allow for windows to remain closed year-round.

Additional measures may be included as part of the treatment package with approval from the local FAA ADO. Additional treatment measures that may be employed following ADO approval include:

- Addition of attic and/or wall insulation
- Addition of extra layers of wall and/or ceiling board
- · Removal or treatment of through-wall A/C units
- Removal of mail slots, pet doors, milk chutes
- Treatment of chimneys, fireplaces, exhaust vents

#### 2.5 By Noise Contour Level

The sound insulation measures included in a treatment package are selected in order to achieve a target NLR value based on the DNL to which a structure is exposed. The exterior DNL value assigned to a residence is the upper end of the corresponding DNL interval, as outlined in Section 3.4.1 of the 1992 Guidelines (FAA 1992). For example, residences in the DNL 65 to 70 dB interval are assigned an exterior DNL of 70 dB.

<sup>&</sup>lt;sup>7</sup> FAA Order 5100.38D, Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", g. "Factors to Consider For Justification and Eligibility" Paragraph (6): "The following measures are allowable: window and door replacement, caulking, weatherstripping, and installing central air ventilation so that the windows can be kept closed only if the structure does not already have a central air ventilation system. The use of other measures is not allowable unless the ADO has approved the use of the measures in advance."

<sup>8</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", g. "Factors to Consider For Justification and Eligibility" Paragraph (6): "The following measures are allowable: window and door replacement, caulking, weatherstripping, and installing central air ventilation so that the windows can be kept closed only if the structure does not already have a central air ventilation system. The use of other measures is not allowable unless the ADO has approved the use of the measures in advance."

Sound insulation programs generally target a post-construction NLR value of approximately 30 dB for residences exposed to DNL between 65 and 70 dB, and a 35 dB NLR for residences exposed to DNL between 70 and 75 dB. Achieving a post-construction NLR of 35 dB and higher generally requires that treatment packages include at least some of the additional measures mentioned in Section 3.1. Sound insulating residences exposed DNL greater than 75 dB (i.e. target NLR values of 40 dB and higher) may be infeasible in some neighborhoods. When it is feasible, the materials and measures required to achieve very high NLR values may be impractical to implement and/or aesthetically undesirable to homeowners.

#### 65 to 70 dB DNL treatment package:

A treatment package for a residence exposed to a DNL between 65 and 70 dB (i.e. target NLR of 30 dB) would typically include:

- Triple pane assembly windows and sliding glass doors (i.e. double-glazed prime with single glazed storm)
- Solid-core wood prime exterior doors with a single-pane storm door
- Additional ceiling insulation where existing insulation is insufficient
- Treatment or removal other sound infiltration weak points such as through-wall A/C units, mail slots, exhaust vents, etc.

#### 70 to 75 dB DNL treatment package:

A treatment package for a residence exposed to a DNL between 70 and 75 dB (i.e. target NLR of 35 dB) would include measures similar to the 30 dB NLR package, but would require materials with increased sound insulation performance. The level of performance required to achieve an NLR of 35 dB is near the upper limit for many residential products, and commercial or custom made product may have to be used. The treatment of exterior walls and ceilings with an additional interior gypsum board layer may also be required to achieve the target NLR.

#### 75 dB DNL and greater treatment package:

In most cases, treatment packages for residences exposed to DNL greater than 75 dB (i.e. target NLR values of 40 dB and higher) require the use of high performance commercial products and the addition of either multiple layers of gypsum board to wall and ceiling surfaces or double wall construction. Available commercial products which meet the performance requirements may be aesthetically less desirable to some homeowners than the residential products used in treatment packages targeting lower NLR values. Double wall construction increases wall thickness by several inches, thus somewhat reducing the total area of rooms with treated walls.

Sound insulation treatments are not recommended for homes in this noise level. The preferred noise mitigation method is the acquisition of the property and the relocation of the residents.

#### 2.6 Secondary Treatments

For those homes which do not have continuous positive ventilation and when acoustically tested have an interior noise level less than 45 dB DNL, the FAA allows for installation of secondary treatments in

order to provide neighborhood equity and to allow the residents to have proper air circulation while they have the doors and windows closed.

If these types of homes are identified during the ATP process, the airport sponsor will work with the FAA to obtain approval for a positive ventilation package as described in Appendix R.<sup>9</sup>

#### 3.0 Implementation of Program

The airport sponsor will develop a grant application for the design of a group of homes. Upon receipt of the grant funding, the airport's consultant team will begin the sound insulation process.

#### 3.1 Overall Timeframe

The sound insulation process for a typical package of 50 homes takes approximately 12 -18 months from initial homeowner outreach to completion of the construction contract. This timeframe can vary depending upon the number of homes included in the construction package and the timing of the grant cycle.

#### 3.2 Design

The design process is comprised of a number steps including homeowner outreach, assessment visits, design of an acoustical treatment package for each home and development of construction documents.

- **Application:** Eligible property owners, will be sent a Program Application Package explaining the sound insulation process and an application for participation.
- Assessment Visit: The assessment visit is conducted by the program team at the property. During
  the visit, the program team will explain the RSI Program in detail, document the home's existing
  conditions, draw floor plans and measure all windows and doors. The mechanical/electrical
  engineer will conduct a detailed evaluation of the home, including existing heating and air
  conditioning systems, electrical service, and potential safety or code issues.
- **Design Phase**: The program team will meet with the owners either at their home or at the RSI Program office to review the recommended construction plans and scope of work for the property. This will include floor plans of the home, recommended treatment package, and homeowner prework, if any.
- Homeowner Participation Agreement: Once the owners have agreed to the recommended scope
  of work, they will execute the homeowner participation agreement. The homeowner participation
  agreement is a contract between the airport sponsor and the property owner describing the work
  to be undertaken and the responsibilities of each party. This may also include the execution of an
  avigation easement, if required.
- **Development of Construction Documents**: All participating properties are placed into a construction package. The program team will develop a set of bid documents that conform to FAA,

<sup>&</sup>lt;sup>9</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", h. "Noise mitigation Measures for Residences (Positive Ventilation Package Only)" Paragraph (3): "A Continuous Positive Ventilation System is the allowable package for these residences. The sponsor must also provide detailed information about the ventilation package including costs of the package compared to the cost of a standard noise insulation package. The sponsor may recommend an air conditioning system in lieu of ventilation-only."

state and local bidding requirements. These documents will be sent to the FAA for concurrence and permission to bid the construction contract.

#### 3.3 Bid

The final design and construction package is released to interested contractors for public bidding by the airport sponsor. The bids are evaluated and the work will be awarded to the most responsive, responsible qualified contractor.

A grant application for the construction of these homes is submitted to the FAA along with the successful contractor's bid.

#### 3.4 Construction

Upon receipt of a grant for the construction of the homes, the program team will begin the construction process.

- Pre-Construction Activities: The selected contractor and the RSI Program team members will
  schedule an appointment with each property owner to review the specific scope of work for your
  home. The contractor will measure each window and door opening. The contractor will develop a
  construction schedule and provide product submittals and shop drawings. Upon approval of these
  submittals by the program team, the contractor will order the customized products. The contractor
  will pull construction permits for each of the homes.
- **Pre-Construction Walk-Through:** The contractor and program team will visit the home 48 hours before the start of construction. During this visit, the contractor will review with owner the scope of work for the home, take pre-construction photographs, and ensure the property has been prepared for construction.
- Construction Process: The program team will notify the owner of their construction start date. The construction process takes approximately 30 days. The contractor will need access to the property during normal business weekday hours. There will not be any work on weekends, holidays or in the evening. The contractor will be required to reach substantial completion of the scope of work for the property within 10 days. After substantial completion, the contractor will be given additional time to finalize the scope of work and conduct the necessary permit inspections.
- **Final Construction Inspection:** The program team and the property owner will conduct a final inspection of the residence. Upon final inspection and approval, the homeowner will receive a warranty package for all work performed.

#### 3.5 Post Testing

The noise reduction goals for residential sound insulation programs are outlined in Appendix R of the AIP Handbook:

- Provide an exterior-to-interior NLR improvement of at least 5 dB
- Reduce the average interior DNL sound level to 45 dB or below

The 5-dB improvement goal exists to provide a noticeable reduction of aircraft noise levels to residents.

Post-construction acoustical testing is conducted on a sampling of structures that had acoustical treatments installed. The use of random sampling to select homes for the testing may be augmented with selection of specific individual homes based on their acoustically significant interior and exterior features.

The acoustical consultant analyzes the testing results to determine if the installed treatments meet the RSI Program's acoustical goals. Any instances where these goals are not met are investigated and adjustments to the acoustical treatments may be recommended to ensure that the RSI Program goals are ultimately met. Overall, the post-construction acoustical testing is intended to provide quality control and assurance.

Furnishings such as sofas, beds, carpeting, and curtains have some effect on the amount of sound absorption within a home, and can therefore impact interior noise level measurements. As such, homeowners should not modify furnishings between the occurrence of pre-construction and post-construction noise testing.

The AIP Handbook (Appendix R, Table R-4, c.5) also requires that: "The sponsor will then measure the interior noise levels and prepare a summary report detailing the effectiveness of the design package, make recommendations for any changes to the package, lists the before and after interior noise level data, and submits the package to the ADO". Therefore, a post-construction acoustical testing summary report documenting the achieved noise level reductions and post-construction interior aircraft noise levels, noting any unique circumstances, is prepared and submitted to the ADO.

#### 3.6 Closeout

Upon completion of the work and verification of the acoustical goals being met by the RSI Program, the airport sponsor will close out the construction contract and the grant.

[END OF MEMORANDUM]

#### BURLINGTON INTERNATIONAL AIRPORT

#### NOISE COMPATIBILITY PROGRAM TECHNICAL ADVISORY COMMITTEE MEETING SUMMARY (#3)

**January 23, 2018** 

#### BTV STAFF/CONSULTANTS:

Nic Longo, BTV (Chair) Gene Richards, BTV (Vice Chair) Larry Lackey, BTV Shelby Losier, BTV Sarah Degutis, Jones Payne Group Diane Carter, Jones Payne Group Brad Nicholas, HMMH

#### TAC MEMBERS

Seth Banden, GBIC

George Maille, So. Burlington Resident TAC Representative

Charlie Baker, CCRPC

Steve Wisloski, So. Burlington School District

Trevor Callens, VTANG

Jessie Baker, Winooski City Manager

Col. John Johnston, Air Guard

Carmine Sargent, So. Burlington Resident TAC Representative

Frank Cioffi, GBIC

Ron Bazman, FAA

David Young, So. Burlington School District

Bob McEwing, Essex

Paul Connor, South Burlington City Planner

#### **PUBLIC ATTENDEES:**

Steve Marriott, South Burlington Jeremy King, So. Burlington Energy Committee Jen Norz, Efficiency VT

#### 1.0 WELCOME and OVERVIEW

Nic Longo, Aviation Deputy Director, opened the meeting at 5:05 PM. Introductions were done. Mr. Longo announced new air service at Burlington Airport with a Delta direct flight to JFK beginning in March and American direct to Chicago O'Hare beginning in June.

#### Overview

Nic Longo said the FAA is being pushed to fund the Noise Exposure Map (NEM) as soon as possible. F-35 data will be included. The airport is seeking funding from an already

funded grant or will submit a grant application by May for funding in September at the end of the federal fiscal year. The timeline for the project is 12 to 18 months.

George Maille, South Burlington, asked if the new NEM could be done by February 2019 or prior to the beginning of the arrival of the F-35s in September 2019. Gene Richards assured the airport is doing all that can be done. The concerns have been heard and are trying to be addressed to get the best results.

#### 2.0 PUBLIC FORUM AND COMMENTS

The following was discussed:

 Discussion of avigation easement resolutions to date – Sarah Degutis said where avigation easements are required or optional in each program will be mentioned through discussions of the programs but decisions to be made after all land use measures are reviewed.

#### 3.0 CHAPTER 4 – RECOMMENDED NCP REVISIONS (Part 1)

Brad Nicholas reviewed:

- Airport Operation Measures and Review and Monitoring Measures will not be added to or edited as part of the NCP, but there are some updates on status to be made from the 2008 NCP.
- Extension of Taxiway G measure is complete. Aircraft taxi on Taxiway K now. The taxiway is located farther from residences.
- Terminal power installations are on the jet bridges and in use. There is auxiliary power such as a small generator to power the electrical units on aircraft.
- Bi-directional runway use is in the NCP. Presently bi-directional runway use is not available through the night because the tower at Burlington is not open. If the tower opens at night then the sound committee can work on implementation of this measure. Nic Longo said the airport is working to have the tower operating 24/7 and then the noise mitigation efforts can be implemented.
- Ongoing monitoring/review of the NEM and NCP status is implemented with the quarterly meetings of the sound mitigation committee.
- Flight track monitoring is being pursued by the airport. The flight track data will be online. The database can be used for analyses. The numbers are for reporting and tracking purposes and can assist with complaint follow up/management.

#### **COMMENTS**

- ➤ Paul Connor asked about the holding bays at the north end of the taxiway. Nic Longo said staff will work with the South Burlington DRB if the holding bays will be used, and if used will be included in the NEM.
- ➤ Paul Connor mentioned potential use of funds from the VW settlement on any airport noise measures.
- ➤ George Maille mentioned the use of the jet bridge on the southern concourse. Nic Longo said use of the southern jet bridge will be minimized. Brad Nichols added the airport is minimizing use of jet bridges to minimize noise. Also, the bridges are pushed farther onto the taxiway before start up to decrease noise.

- ➤ George Maille asked if the FAA will fund equipment for noise measures. Brad Nicholas said the FAA will fund the initial installation of equipment, but not ongoing maintenance and support.
- Paul Connor noted at other airports the noise committee reviews the flight data, comments, and evaluates the cause of anomalies. Nic Longo said the flight tracking system will allow for collection of data and reporting to the sound mitigation committee or the Airport Commission. The data is available online. The data allow staff to follow up on any complaints. The intent is to capture all flight data, commercial and military.
- ➤ George Maille mentioned recording plane noise from planes on the ground and asked if there is some control on the FBO regarding the direction the plane engines are pointed. Nic Longo said there could be policies and procedures that define where there can be engine run-ups, for example.

Diane Carter reviewed the sound insulation program focusing on three areas: who is eligible for sound insulation, policies and procedures, and implementation of the program.

#### **Eligibility**

Houses must be built before 1998, be within the 65 dB or higher noise contour, have an internal noise level of 45dB to be eligible. This is the case unless the City of South Burlington has a lower standard than the FAA standard then the city standard will be used, but no new residential use in the contour will be allowed and it would be a new land use standard that needs to be implemented by the jurisdiction. There are accommodations for "block rounding" that will be used at the 65dB DNL to round out streets or neighborhoods.

An acoustical test plan (ATP) must be in place with the sound insulation program so houses can be qualified for sound insulation. The FAA must approve all the information from the ATP and then policies and procedures are developed. The FAA will only cover the cost of modifications that help sound insulation of the house, not building code issues.

Diane Carter reviewed the steps in the ATP. Houses are categorized and acoustical testing performed on a minimum of 10% of the homes in each category. Measurements are taken inside and outside the habitable rooms in the house. If the tested homes in a group have an average sound level above 45dB than the entire group will be eligible for sound insulation.

#### **Policy and Procedures**

Following the approved ATP by the FAA, a policy and procedure manual is developed. This will include purpose of the program, goals and typical modifications, project planning and management, construction bid cycle, eligible spaces, acoustical treatments, and building code requirements.

If the sound level is below 45 dB then the house is eligible for other programs, but not sound insulation. Subsequent homes in that group will be tested to qualify for sound insulation. The program starts with houses in the 70 dB line down to the 65 dB line. Other criteria could be considered to prioritize homes such as the length of time the homeowner has lived in the house, if the house is rented or owned, or completion of all homes on a street in one phase.

The pace of the program will be established, typically in this region is it about 50 homes in each phase. There is a grant for design of a phase and a second for construction, and once the process gets going there is design starting as construction starts with grants back to back.

Nic Longo noted the program is tied to FAA funding cycles and funding availability. The airport has the first funding on the Capital Improvement Plan with the FAA to commence in 2019 for the sound insulation program.

Diane Carter said types of treatment for sound insulation include acoustic windows, acoustically rated doors, caulking and weather stripping if needed, central air conditioning, closure of mail slots and pet doors. There could be other treatments if approved by the FAA such as attic and wall insulation, extra wall or ceiling boards. Commercial grade materials and double walls would be required in houses in the 75 dB or greater contour, and generally sound insulation is not recommended for single family houses.

The airport and consultant team will meet with the municipalities to look at building code compliance. If items are not eligible under the program there will be discussion of the homeowner doing the improvements or the airport paying for the improvements.

#### **Program Implementation**

Sarah Degutis stated 50 up to possibly 100 houses will be selected for the each phase of the program. The process for each phase will include:

- An invitation letter, application and general survey inquiring about the number of rooms, windows, doors, children, special needs, etc. will be sent to the homeowner.
- A homeowners outreach meeting will be held to explain the program, process and what to expect.
- ➤ Pre-acoustical testing will be done unless the house is pre-qualified.
- ➤ The consultant team will do an assessment of the house to measure windows, doors, identify noise paths to pinpoint specific treatments.
- ➤ There will be a homeowners review meeting to review the planned treatments and the homeowner will be asked to sign a participation agreement and an easement if one is required.
- The team will finalize the design package for the house.
- The packages for all the houses will be bundled and put out to public bid. Contractors must be insured, bonded, licensed, and have a background check

- done. The bid responses are reviewed and the bid is awarded to the lowest responsible bidder. The airport will simultaneously be proceeding with the grant as the contractor will get notice to proceed with construction.
- The contractor will visit the house and verify the products and measurements before ordering the materials. The homeowner will receive a construction schedule. Each house typically takes 30 days to complete (two weeks for construction and two weeks to wrap up remaining tasks). The homeowner will be able to remain in the house during construction. There will be multiple homes under construction at any one time so the process moves quickly.
- ➤ Houses that were pre-acoustically tested will be post-acoustically tested.

#### **COMMENTS**

- ➤ George Maille asked if the community will have input on the rounding of the contour lines. Nic Longo said there will be public process through the committees, but the FAA approves the block rounding of contour lines.
- ➤ Charlie Baker asked about the grant match. Nic Longo said the grant is 90% federal, 6% state, and 4% local.
- ➤ George Maille asked if there is preference given to local contractors for the house bids to help the local economy. Diane Carter said there is no local business set aside per federal procurement regulations. Typically local contractors team with a national contractor familiar with these types of projects. Gene Richards said the airport will do all that is possible to have local involvement and still comply with federal regulations. Sarah Degutis noted after the pre-bid meetings there are often meetings for local contractors to meet with national contractors.
- ➤ George Maille asked about houses that are not pre-tested. Sarah Degutis said typically if 10% of a group of houses are tested and all pass then the entire group qualifies. The ATP will set the criteria to determine the testing.

#### 4.0 TAC QUESTIONS & COMMENTS

Any questions and comments should be forwarded to the consultants (<u>btvsound@jonespayne.com</u>) and the airport administration.

Request was made for a list of decision points for the NCP.

#### 5.0 WRAP UP & ADJOURNMENT

Future Meetings & Agenda Items:

- March 13, 2018 NCP Chapter 4 Land Use Measures (continued)
- May 2018 Feedback on previous meeting
- August/September 2018 Public Hearings

With no further business and without objection the meeting was adjourned at 6:32 PM.

# BTV NCP TAC Meeting #4 March 22, 2018

#### **BURLINGTON INTERNATIONAL AIRPORT**

## Technical Advisory Committee - Sound Program, NCP Update DATE: March 22, 2018

LOCATION: Burlington International Airport, Conference Room #3
SIGN-IN SHEET

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
14	Stur Marriett	13 Mills AVE SB	802 8622998
15	Store Wisloch	S.B School Bard	
16	Diana Camaian	98 Suburbans	802-373-2038
17	/ Ridm	BTV	
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#### **BURLINGTON INTERNATIONAL AIRPORT**

### Technical Advisory Committee - Sound Program, NCP Update

**DATE: March 22, 2018** 

**LOCATION: Burlington International Airport, Conference Room #3** 

**SIGN-IN SHEET** 

#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
1	Dri N Desautel	)	922-0495
	AAAS TUNICOCICZ	VT ANG	338-5584
	Richard Lizzoni	VTANG	338-3424
4	Conon AMANDAIN	THE VARIABRE SB RES	318-8100 Likstry 163 Concast NAT
	Jessie Baker	Winoceti	655 6 410 Makene windoski Vtava
	Parach Gallera	Spint Michael (	654-224
7	John Johnston	VTAILNG	3383531
	Carmine Sargent	So. Burl.	458-1164
9	Paul Conner		# 846-41V6
	Robert M. Ewing		802-777-9749
11	,		
12			
13			





#### **AGENDA**

#### BTV Noise Compatibility Program (NCP) Technical Advisory Committee Meeting

**RESCHEDULED** March 22, 2018

5:00 p.m. - 6:30 p.m.

Conference Room 3

Call in # for those who are unable to attend: 712-775-8972 Code: 235681

5:00 – 5:10	Welcome and overview of agenda					
5:10 – 5:20	Public forum and comment period					
5:20 – 5:30	:30 Noise Exposure Map progress update					
5:30 – 6:15	Chapter 4 – Recommended NCP Revisions (Part 2) Land Use Measures (continued) Sound Barrier Sales Assistance Purchase Assurance Easement Acquisition Land Acquisition and Relocation					
6:15 – 6:30	Technical advisory committee questions and comments					





# **BTV Noise Compatibility Program Update**– Technical Advisory Committee

March 22, 2018





HARRIS MILLER MILLER & HANSON INC.

## **Purpose of TAC**

- The TAC is advisory to the City solely for purposes of the BTV Part 150 Study, including:
  - Review of study inputs, assumptions, analyses, documentation, etc.
  - Input, advice, and guidance related to Noise Compatibility Plan (NCP) development
- The City shall respect and consider TAC input, but must retain overall responsibility for the Part 150 Study and NCP recommendations
- The TAC and City recognize FAA is responsible for accepting Noise Exposure Map (NEM) and NCP submissions and for approving NCP measures
- TAC members represent the interests of their organization and/or constituents
- TAC members are expected to provide two-way communication between the City and their organizations / constituents



## Agenda

Public forum and comment period

Noise Exposure Map Update

Chapter 4 - Recommended NCP Revisions (PART 2)

Review Land Use Measures

TAC questions and comments period

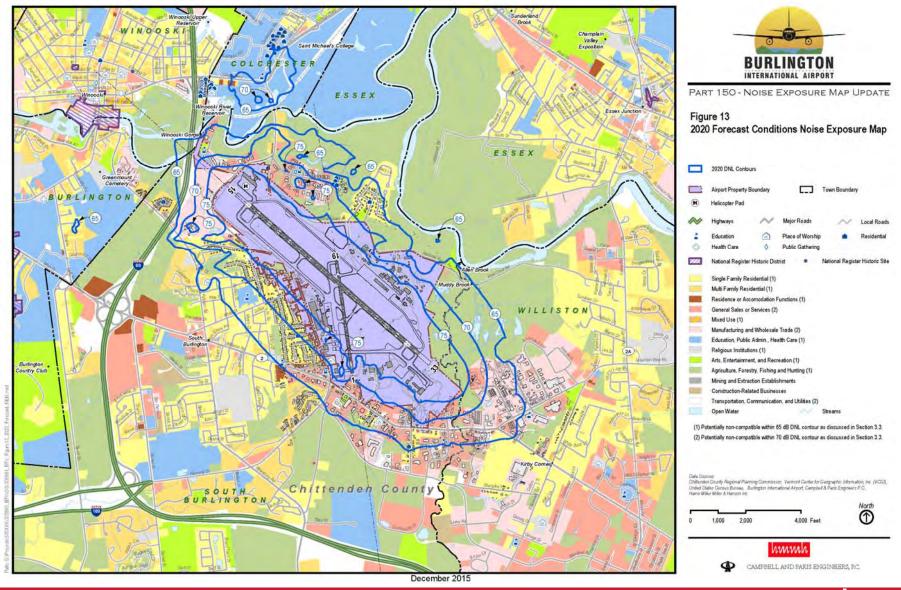
## **Public Forum and Comment Period**



## **Noise Exposure Map Update**



## **Existing FAA Approved 2020 NEM**





## Noise Exposure Map (NEM) Update

- FAA has approved funding for the NEM Update
- The NEM documents the airport layout and operation, aircraft related noise exposure and land uses surrounding the airport
- Creates 2 maps
  - 2018: Current year w/ F-16C operations
  - 2023: Forecast year w/ F-35A operations
- The NCP process will be put on hold until the contours are developed for the NEM
- This will allow jurisdictions to understand how the noise exposure may affect their residents



## **Noise Exposure Map - Schedule**

				2018										
ı				Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	1	Data collection; approval modeling; development of forecasts	•											
	2	Development of draft contours; land use analysis				[								
	3	Draft NEM document for public review; public meetings; public comment period												
	4	Finalize and submit final NEM to FAA for approval												
ı	Legend:													
	Consultant Task Stakeholder Involver			ment Agency Review										

## **Sound Barriers and Buffers**



#### **Sound Barriers and Buffers**

- Commonly used along roadways and at stationary noise sources
- Can be effective at airports at run-up locations. Airport buildings can offer some shielding from gate and taxiing operations



## **Sound Barriers and Buffers - Effectiveness**

- Barriers must be *high* relative to both the noise source (aircraft engines) and the receiver location (building windows/doors).
  - As such, barriers can only be effective for blocking ground noise, and are ineffective for airborne aircraft.
- Barriers must be *close* to either the source or the receiver.
- The barrier must be high relative to the wavelength of sound.
   For a broadband noise like aircraft, a barrier will be more effective at higher frequencies and less effective at lower frequencies.



### **Sound Barriers and Buffers - Constraints**

- 14 CFR Part 77 defines imaginary surfaces that restrict the height of objects near runways. Airspace obstruction considerations typically prevent barriers of an effective height from being constructed adjacent a runway.
- Constructing an effective barrier close to the buildings requiring shielding may be impractical or infeasible.
  - A nearby, high wall could be visually obtrusive
  - Neighborhood orientation relative to the runway may not allow for a sufficiently long barrier
  - Property considerations can be complicated by multiple property owners



## **Sound Barriers and Buffers**

#### **AIP Program Funding and Requirements**

- The noise barrier must be shown to reduce aircraft noise by at least 5 dB in noncompatible areas (65+ dB DNL).
- Residences experiencing a 5 dB DNL reduction from the barrier would not be considered eligible for other mitigation measures such as sound insulation or sales assistance.



### **Sound Barriers and Buffers**

#### <u>Advantages</u>

- Provides noise relief to those adjacent to wall
- Provides a visible barrier between the residential area and the airport property

#### <u>Disadvantages</u>

- Properties which benefit from barrier are not eligible for other types of mitigation
- Expensive measure which benefits a few and will delay implementation of other programs



## **Sales Assistance**

#### Sales Assistance

- Assists owners who wish to sell their property and relocate
- Airport will assist with the sale on the open real estate market for Fair Market Value (FMV)
- Airport does <u>not</u> acquire the property
- Avigation easement is required
- Owner is not eligible for relocation benefits
- No change to the underlying land use



## **Sales Assistance - Implementation**

#### Property owner:

- Enter a participation agreement with Airport
- Market and sell their home through licensed real estate agent
- Listing price is based on fair market value (FMV), established by appraisal following federal appraisal guidelines
- Records avigation easement prior to sale of property

#### Airport sponsor:

- Pays differential payment if property doesn't sell at FMV
- Pays closing costs and realtor's commission
- Conducts a market absorption study to determine the expected rate at which homes can be sold to maintain neighborhood stability



## **Sales Assistance**

#### <u>Advantages</u>

- Allows the owner to relocate outside the project area
- Maintains the neighborhood
- Stabilizes market by limiting sales to market absorption
- Airport sponsor obtains an easement which makes property Part 150 land use compatible
- Owner is guaranteed fair market value for property
- Avoids vacant properties
- Maintains the jurisdiction's tax base
- Is an alternative for properties which do not qualify for sound insulation

#### <u>Disadvantages</u>

- Does not guarantee sale of home
- Depending on market conditions process can be slow



## **Purchase Assurance**



### **Purchase Assurance**

- Assists owners who wish to sell their property and relocate
- Sale is made directly to Airport for Fair Market Value (FMV)
- Avigation easement is required
- Owner is not be eligible for relocation benefits
- No change to the underlying land use



## **Purchase Assurance - Implementation**

#### Property owners:

- Airport purchases eligible property for FMV in exchange for an avigation easement
- Upon sale and recording of easement, the Airport sound insulates the home and sells it on the open market

#### **Airport Sponsor**

- Responsible for closing costs associated with the acquisition of the property
- Maintains property during 18 month purchase/ sale process
- Conducts a market absorption study to determine the expected rate at which homes can be sold to maintain neighborhood stability



#### **Purchase Assurance**

### <u>Advantages</u>

- Allows property owners to sell to the sponsor immediately, pending available funding
- Allows for sound insulation of property

#### Disadvantages

- Maintenance and protection costs can be excessive due to length of process
- The jurisdiction will lose property tax revenue during Airport ownership of property
- Pace of program will be determined by market absorption and funding availability
- Cost of program will limit number of homes that can participate



## **Purchase of Avigation Easements**



## **Avigation Easements**

- Provides eligible property owners who wish to remain in their home and do not qualify for sound insulation the ability to obtain a cash payment.
- Avigation easement is required
- Easement values are under \$10,000 per property based upon an appraisal
- There is no change to the underlying land use



## **Avigation Easement-Implementation**

- Airport retains an appraiser who determines the "measure and effect of the easement conveyance on the subsequent market sale"
- A nominal easement value is determined for a given neighborhood
- Owner conveys easement in exchange for cash payment



## **Avigation Easements**

#### **Advantages**

- Allows the property owner to remain in their home
- Maintains the residential neighborhood
- Owner is guaranteed a cash payment in exchange for the easement
- Maintains the jurisdiction's tax base
- Is an alternative for individuals who do not qualify for sound insulation

#### Disadvantages

Typically low participation in this type of program



## **Land Acquisition and Relocation**



## **Land Acquisition and Relocation**

- Provides eligible property owners located in areas of high noise exposure (75+ dB DNL), where other mitigation programs are not feasible, the ability to sell their property and relocate outside the noise impact area
- Airport will purchase property at FMV from owner
- Occupants will be provided relocation benefits to move outside of the noise impact area
- Airport will raze the structure upon acquisition and work with local jurisdiction to rezone the land into a compatible land use



## Land Acquisition and Relocation - Implementation

- Program consists of two transactions:
  - Purchase of the property from owner
  - Relocation of the occupants
- Purchase is based on the FMV of the property
- Relocation benefits are designed to provide new housing in a manner that is similar size and function
- Following the Airport taking possession of the property, they will arrange for the structure to be razed
- Acquired land will be included on the noise land inventory map and noise land reuse plan
- Airport will care for and manage property until such time that it can be rezoned or designated for compatible use
- Process takes 12-18 months depending on relocation needs



## **Land Acquisition and Relocation**

#### **Advantages**

- Allows property owners to sell to the sponsor immediately, pending available funding
- There are no other viable mitigation options for homes located in the highest noise levels

## <u>Disadvantages</u>

- Jurisdictions will not receive property taxes
- The Airport obtains ownership of the property, which would result in costly maintenance to prevent deterioration including: lawn maintenance, securing from vandalism and theft, which increases administrative costs to the project



## **Summary Comparison of Programs & Costs**

Below are the estimated average cost for each program per home and the number of properties that would be eligible based upon a \$5 million grant

Program	Cost	Per Home	# of Homes
Sound Insulation	\$	54,000	93
Sales Assistance	\$	35,520	141
Purchase Assurance	\$	355,200	14
Avigation Easement	\$	2,500	2000
Acquisition & Relocation	\$	407,000	12

Note: Cost per home is based upon actual costs from BTV Airport programs or the New England Region plus 20% administration costs



## **TAC Discussion**

Knowing there are new noise maps coming out later this year

- Does this affect your input on which measures should be included in the NCP?
- Should the final NCP recommendations be delayed until the new maps are published?
  - If yes, it will delay the approval of the NCP and the funding for noise mitigation programs such as sound insulation
  - If not, is their agreement to finalize the NCP to get FAA approvals so that funding can commence next year.



## **NEM and NCP Schedules**

- Next TAC meeting TBD
- Reinstating sound committee meetings (Q2)
- NEM commencing immediately
  - Public meeting and comment period Fall 2018
- NCP on hold until NEM contours developed



## **TAC** questions and comments

Primary NCP Contact:
Sarah Degutis, Project Manager
The Jones Payne Group
BTVsound@jonespayne.com
617-790-3747



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T 617.790.3747 F 617.790.3748
www.jonespayne.com

BURLINGTON INTERNATIONAL AIRPORT

PART 150 NOISE COMPATIBILITY PROGRAM UPDATE

TECHNICAL PAPER – VARIOUS NOISE MITIGATION PROGRAMS
February 27, 2018

#### 1.0 Introduction

The purpose of this paper is to review the various types of noise mitigation that can be offered in addition to sound insulation which was presented in the previous technical paper.

#### **Additional Noise Mitigation Programs**

The Federal Aviation Administration (FAA) Part 150 process allows for several types of noise mitigation programs to be offered to non-compatible land uses. In general there are 2 types of programs;

- No change in land use and
- Change in land use

An Airport sponsor may implement programs designed to acquire an easement for noise compatibility purposes if it is contained within an approved 14 CFR Part 150 Noise Compatibility Program.

The properties must be within the 65 dB DNL or higher noise contour for which the land use is not considered to be compatible (49 USC § 47502, as implemented by Table 1 of Appendix A in 14 CFR Part 150). The requirements for implementing these types of programs is defined by the FAA in accordance with Appendix R "Noise Compatibility Planning/Projects" of FAA Order 5100.38D "Airport Improvement Program (AIP) Handbook<sup>1</sup>".

Below is a table which summarizes each potential noise mitigation measure, the estimated potential cost per parcel, whether an avigation easement is required, and the potential advantages and disadvantages. The sponsor believes that a combination of these programs may offer the best options to the community for the foreseeable future. The City of Burlington and the City of South Burlington have expressed a preference in maintaining the residential neighborhood adjacent to the airport which is currently impacted. Other adjacent jurisdictions should consider the following options and express an opinion regarding the implementation of these programs in their jurisdictions should the updated noise exposure map expand the current noise exposure area.

<sup>&</sup>lt;sup>1</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", effective date September 30, 2014.



#### Matrix of Mitigation Measures:

The matrix below identifies the various mitigation programs discussed in this paper and summarizes the type of program, need for an avigation easement, estimated average cost per home, recommended noise contour for implementation advantages and disadvantages. A more detailed discussion of each program follows:

Mitigation Measure	Easement Required	Estimated Average Potential Costs per Property	Recommended Noise Contour to be Implemented	Advantages	Disadvantages
Sound Barriers and Buffers	Not Applicable	N/A	70 DNL (Day- Night Average Sound Level)	Provides noise relief to those adjacent to wall     Provides a visible barrier between the residential area and the airport property	Properties which benefit from barrier are not eligible for other types of mitigation     Expensive measure which benefits a few and will delay implementation of other programs
Sales Assistance	Yes	Up to 10% of Fair Market Value (FMV) <sup>2</sup>	65-75 DNL	Allows the property owner to relocate outside the project area     Maintains the residential neighborhood     Stabilizes market by limiting sales to market absorption     Airport sponsor obtains an easement which makes property Part 150 land use compatible     Property owner is guaranteed fair market value for property     Avoids vacant properties     Maintains the jurisdiction(s)' tax base	Does not guarantee sale of home     Depending on market conditions process can be slow     Typically very low participation in this type of program     Developing policies regarding differential payment to ensure market stability can by difficult

-

<sup>&</sup>lt;sup>2</sup> Estimated cost is 10% of average fair market value based on homes purchased by BTV 2017 home acquisition program.

Purchase Assurance	Yes	FMV <sup>3</sup>	65-75 DNL	Allows property owners to sell to the sponsor immediately, pending available funding     Allows for sound insulation of property along with current homeowner's ability to move from neighborhood	<ul> <li>Depending on how long it takes to sell the property, maintenance and protection costs could be excessive</li> <li>Jurisdiction(s) would lose ad valorem tax revenue during sponsor ownership of property</li> <li>The Airport sponsor obtains ownership of the property, which would result in costly maintenance to prevent deterioration including: lawn maintenance, securing from vandalism and theft, ensuring buildings remain mold-free, securing and maintaining swimming pools, providing routine inspections, which increases administrative costs to the project</li> <li>The market absorption and foreclosure market may result in long term vacancies and destabilize the neighborhood and property values for remaining residents</li> <li>The Program has excessive costs and timeline which will detract funding from strategies such as Sound Insulation and Sales Assistance</li> <li>The Airport sponsor absorbs all the risk</li> </ul>
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<sup>&</sup>lt;sup>3</sup> Estimated cost is based on the FMV of homes purchased by BTV 2017 home acquisition program.

Easement Acquisition	Yes	\$2,500	65-75 DNL	Allows the property owner to remain in their home     Maintains the residential neighborhood     Airport sponsor obtains an easement which makes property Part 150 land use compatible     Property owner is guaranteed a cash payment in exchange for the easement     Maintains jurisdiction(s)' tax base     Is an alternative for individuals who do not qualify for sound insulation	Typically very low participation in this type of program
Land Acquisition & Relocation	Prior to Land Use Change	FMV (\$296,000) & Relocation costs (\$43,000) <sup>4</sup>	75+ DNL	Allows homeowners to sell to the Airport sponsor immediately, pending available funding     There are no other viable mitigation options for homes located in the highest noise levels	Jurisdiction(s) would lose ad valorem tax revenue     The Airport sponsor obtains ownership of the property, which would result in costly maintenance to prevent deterioration including: lawn maintenance, securing from vandalism and theft, which increases administrative costs to the project
Sound Insulation	Encouraged / Not Required	\$45,000 <sup>5</sup>	65- up to the75 DNL	<ul> <li>Allows the property owner to remain in their home</li> <li>Maintains the residential neighborhood</li> <li>Maintains jurisdiction(s)' tax base</li> </ul>	Is not effective in residential properties in high DNLs

<sup>&</sup>lt;sup>4</sup> Estimated cost is based upon the average of the 2017 property purchases by Burlington International Airport

<sup>&</sup>lt;sup>5</sup> Estimated cost is based upon 2017 costs from other New England Region sound insulation programs

#### 2.0 Sound Barriers and Buffers (HMMH)

#### **Introduction to Sound Barriers**

Physical barriers can be effective means of reducing noise exposure in certain situations. Barriers are commonly used along roadways and near stationary noise sources to minimize the propagation of noise to adjacent communities. Barriers can be effective at airports in containing the noise at runup locations, and airport buildings can offer some shielding from gate and taxiing operations. Barriers near runways to block takeoff and landing noise are generally not practical due to airspace restrictions.

#### **Sound Barrier Effectiveness**

Sound barriers begin to be effective only when the line-of-sight between the source and receiver is broken. However, simply breaking the line of sight between the source and receiver provides a very minimal amount of shielding from noise produced by the source. Sound, as a wave phenomenon, experiences diffraction around objects in its path. This means that for an optimally effective noise barrier, line-of-sight blockage alone is insufficient. Two quantities must be considered when predicting the value of a noise barrier:

- 1. Path length difference. This is the distance the sound travels from source to receiver, over the top of the barrier, minus the direct distance from source to receiver through the barrier.
- 2. Wavelength of sound.

The barrier's effectiveness depends on the ratio of these two quantities. The greater the path-length difference relative to the wavelength of the sound, the more the sound will be blocked. For a broadband noise source, such as a jet aircraft, the effectiveness of the barrier is frequency-dependent, with more blockage of high-frequency components than low-frequency components. In practical terms, what this means is that for a barrier to be optimally effective, it should be:

- 1. High relative to source and receiver heights,
- 2. High relative to the wavelength of the lowest-frequency sound to be blocked, and
- 3. Close to either source or receiver.

The requirement that the barrier be high relative to the source height means that for aircraft noise, barriers can only be effective for blocking ground noise, and are ineffective for airborne aircraft.

#### **Constraints to Barrier Design**

A significant constraint limiting the effectiveness of barriers at airports is the requirement to limit the height of obstacles in the airport environs. The heights of objects near an airport's runways are limited by CFR Part 77<sup>6</sup>, which defines imaginary surfaces above the airfield that cannot be penetrated by structures or other objects on the ground. These surfaces include a horizontal rectangle including and adjacent the runway, and sloping surfaces rising from this horizontal surface at a slope of 1:7 (rise:run) to the sides of the runway, and 1:50 from the ends of the runway. This severely limits the ability to build

<sup>&</sup>lt;sup>6</sup> Height restrictions are regulated by 14 CFR Part 77 "Objects Affecting Navigable Airspace" and other associated FAA documents.



a barrier both high enough and close enough to the runway to be effective in blocking takeoff roll and landing roll noise.

For taxiways and runup areas sufficiently distant from runways, the Part 77 constraints may allow structures or barriers of sufficient height to provide effective shielding.

If a barrier cannot be placed close to the noise source, its effectiveness will be greatest if it can be placed close to the receiver location. This means that a high wall built adjacent to residences providing acoustic blockage, may result in visual or aesthetic intrusion to these residents. In such cases, the community would need to balance the visual intrusion against the expected noise benefits of such a structure.

#### **Airport Improvement Program Funding and Requirements**

In accordance with Appendix R "Noise Compatibility Planning/Projects" of the Federal Aviation Administration (FAA) Order 5100.38D Airport Improvement Program Handbook, (AIP Handbook), a noise barrier must be able to reduce aircraft noise levels by at least 5 dB<sup>8</sup>. If construction of a noise barrier is funded through the Part 150 program, any residences receiving a 5 dB reduction in DNL would be considered mitigated and would likely not maintain eligibility for other mitigation measures such as sound insulation or acquisition.

#### **Advantages**

- · Provides noise relief to those adjacent to wall
- Provides a visible barrier between the residential area and the airport property

#### **Disadvantages**

- Properties which benefit from barrier are not eligible for other types of mitigation
- Expensive measure which benefits a few and will delay implementation of other programs

<sup>&</sup>lt;sup>7</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", effective date September 30, 2014.

<sup>&</sup>lt;sup>8</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", m. "Noise Mitigation Measures – On-airport Noise Barriers" Paragraph (4): "The project must reduce noise to a land use noncompatible with aircraft noise by at least 5 dB."



#### 3.0 Noise Compatibility Program With No Change in Land Use

### Sales Assistance Program<sup>9</sup>

#### **Objective**

The objective of a Sales Assistance Program is to provide eligible property owners who wish to relocate outside the noise impact area with technical and financial assistance in the sale of their home on the open market. The Airport sponsor will not acquire the property and is responsible for closing costs. The property owner is not eligible for relocation benefits. There will not be any change to the underlying land use.

#### **Implementation**

The property owner(s) will enter into an agreement with the Airport sponsor agreeing to participate in the voluntary Sales Assistance Program. The property owner(s) will be responsible for the marketing and selling their home through a licensed real estate agent, including listing the property on the open market. The listing price will be based on the Fair Market Value (FMV) as established by appraisal following federal appraisal guidelines<sup>10</sup>. If the property does not sell at the FMV within a reasonable timeframe, the Airport sponsor may provide a differential payment that shall not exceed a percentage of the FMV. Prior to the sale of the home, the owner will record an avigation easement in exchange for sales assistance. It is typical for these programs to pay the realtor commission on the sale of the property. This will encourage the local realtors to participate in the program and help to ensure the market remains stable. Policies regarding length of time on market, appraisals and market absorptions will be developed as part of the program's policy and procedures process.

Once a property sells through the Sales Assistance Program, the property is then considered noise compatible under FAA criteria and a subsequent property owner will not be eligible for any of the other programs under the Noise Compatibility Program.

#### Typical Appraisal Process

The appraisal process shall follow federal guidelines. FMV of a property shall be determined by an appraisal of the property by a certified appraiser. This appraisal will be reviewed by a certified appraiser ("review appraiser") and the FMV will be determined<sup>11</sup>. The FMV will be used as the sale price for the home on the open market.

<sup>&</sup>lt;sup>9</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", f. "Acquire Easement for Noise Compatibility"

<sup>&</sup>lt;sup>10</sup> 49 CFR part 24, the current version of FAA Order 5100.37, Land Acquisition and Relocation Assistance for Airport Projects, and the current version of Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.

<sup>&</sup>lt;sup>11</sup> Appraisals and review's determinations must be prepared and performed in accordance with: 42 USC Chapter 61, "Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs; 49 CFR Part 24, "Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs"; the Uniform Standards of Professional Appraisal Practice ("USPAP"); and all state, local and FAA standards.



#### Neighborhood Stability

To maintain neighborhood stability, the airport sponsor will conduct a market absorption study during program implementation to determine the expected rate at which homes can be sold without affecting the pricing of the housing market in the area.

#### **Avigation Easement**

An avigation easement is required in exchange for assisting in the sale of the property. This easement will run with the property. Once easement is recorded, the property is then considered noise compatible under FAA criteria.

#### **Timeline**

The sale of a property will depend upon market conditions and the sponsor's current noise grant funding. Based on current market conditions, sales could occur within 3 months based upon grant availability.

#### **Advantages**

- Allows the property owner to relocate outside the project area
- Maintains the residential neighborhood
- Stabilizes market by limiting sales to market absorption
- Airport sponsor obtains an easement which makes property Part 150 land use compatible
- Owner is guaranteed fair market value for property
- Avoids vacant properties
- Maintains the jurisdiction(s)' tax base
- Is an alternative for individuals who do not qualify for sound insulation

#### **Disadvantages**

- Does not guarantee sale of home
- Depending on market conditions process can be slow
- Typically very low participation in this type of program
- Developing policies regarding differential payment to ensure market stability can by difficult



### Purchase Assurance Program<sup>12</sup>

#### **Objective**

The objective of a purchase assurance program is to provide property owners who wish to relocate outside the noise impact area with the ability to sell their property directly to the Airport sponsor in exchange for an avigation easement. Homeowners will not be eligible for relocation benefits. Funds received from the sale of the property must be reinvested in the noise mitigation program. There is no change to the underlying land use.

#### **Implementation**

The Airport sponsor will purchase an eligible property from the owner in exchange for an avigation easement. The home is purchased based upon the FMV as established through the FAA's appraisal process<sup>13</sup>. Upon sale and recording of the easement, the Airport sponsor will sound insulate the home and then sell it on the open market. The Airport sponsor will be responsible for closing costs associated with the acquisition of the property.

#### **Avigation Easement**

An avigation easement is required in exchange for purchasing the property. This easement will run with the property. Once the easement is recorded, the property is then considered noise compatible under FAA criteria.

#### **Timeline**

It is estimated that after the Airport sponsor takes possession of these properties, it would be required to maintain these properties for a minimum of 18 months while the property undergoes the sound insulation process and is placed on the open market for sale.

#### **Advantages**

- Allows property owners to sell to the sponsor immediately, pending available funding
- Allows for sound insulation of property along with current property owner's ability to move from neighborhood

<sup>&</sup>lt;sup>12</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", f. "Acquire Easement for Noise Compatibility"

<sup>&</sup>lt;sup>13</sup> Appraisals and review's determinations must be prepared and performed in accordance with: 42 USC Chapter 61, "Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs; 49 CFR Part 24, "Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs"; the Uniform Standards of Professional Appraisal Practice ("USPAP"); and all state, local and FAA standards.



#### **Disadvantages**

- Depending on how long it takes to sell the property, maintenance and protection costs could be excessive
- The jurisdiction(s) would lose ad valorem tax revenue during Airport sponsor ownership of property
- The Airport sponsor obtains ownership of the property, which would result in costly
  maintenance to prevent deterioration including: lawn maintenance, securing from vandalism
  and theft, ensuring buildings remain mold-free, securing and maintaining swimming pools,
  providing routine inspections, which increases administrative costs to the project
- The market absorption and foreclosure market may result in long term vacancies and destabilize the neighborhood and property values for remaining residents
- The Program has excessive costs and timeline which will detract funding from strategies such as Sound Insulation and Sales Assistance
- The Airport sponsor absorbs all the risk

#### Purchase of Avigation Easement<sup>14</sup>

#### **Objective**

The objective of an easement acquisition is to provide eligible property owners who wish to remain in their home, and do not qualify for sound insulation the ability to obtain a cash payment in exchange for the easement. There will not be any change to the underlying land use.

#### **Implementation**

Property owners who do not qualify for sound insulation and would like to remain in their home, may be able to obtain a one-time cash payment in exchange for an avigation easement. Easement values are typically in the \$2,000 -\$2,500 range.

#### **Avigation Easement**

This easement will run with the property. Once easement is recorded, the property is then considered a compatible land use under FAA criteria.

#### **Timeline**

The purchase of the avigation easement is dependent upon the sponsor's current noise grant funding.

<sup>&</sup>lt;sup>14</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", f. "Acquire Easement for Noise Compatibility"



#### **Advantages**

- Allows the property owner to remain in their home
- Maintains the residential neighborhood
- Sponsor obtains an easement which makes property Part 150 land use compatible
- Property owner is guaranteed a cash payment in exchange for the easement
- Maintains the jurisdiction(s)' tax base
- Is an alternative for individuals who do not qualify for sound insulation

#### **Disadvantages**

Typically very low participation in this type of program

#### 4.0 Noise Compatibility Program with a Change in Land Use

For those homes located within the highest DNL noise contours, where other noise mitigation programs are not feasible, a land acquisition and relocation may be offered to obtain land use compatibility.

#### **Land Acquisition and Relocation**

#### **Objective**

The objective of a land acquisition and relocation program<sup>15</sup> is to provide owners of properties located in areas of high noise exposure (75 dB DNL), where other mitigation programs are not feasible, the ability to sell their property and relocate outside the noise impact area. The Airport sponsor will purchase the property at FMV from the owner. The occupants will be provided relocation benefits to allow them to move to an area outside the noise impact area. The sponsor will raze the structure upon acquisition and work with the local jurisdiction to rezone the land to a compatible land use.

#### **Implementation**

The land acquisition and relocation program is comprised of two transactions, the purchase of the property from the owner and the relocation of the occupants. The Airport sponsor will purchase an eligible property from the owner following federal requirements<sup>16</sup>. The home is purchased based upon the FMV as established through the FAA's appraisal process<sup>17</sup>. The occupants of the home will be

<sup>&</sup>lt;sup>15</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", e. "Acquire Land for Noise Compatibility and 49 CFR part 24, the current version of FAA Order 5100.37, Land Acquisition and Relocation Assistance for Airport Projects, and the current version of Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.

<sup>&</sup>lt;sup>16</sup> FAA Order 5100.37B "Land Acquisition and Relocation Assistance for Airport Projects" and FAA Advisory Circular 150/5100-17 "Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Project (Consolidated through Change 7)"

<sup>&</sup>lt;sup>17</sup> Appraisals and review's determinations must be prepared and performed in accordance with: 42 USC Chapter 61, "Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs; 49 CFR Part 24,



eligible for a package of relocation benefits that are designed to provide new housing in a manner that is similar in size and function.

After the Airport sponsor has taken possession of the property, they will arrange for the structure to be razed. The Airport sponsor will include the acquired land on the Noise Land Inventory Map and Noise Land Reuse Plan. The Airport sponsor will continue to care for and manage the property until such time as it can rezoned or designated for a compatible use.<sup>18</sup>

#### **Avigation Easement**

An avigation easement will be placed on the property after the purchase of the property. The easement will run with the property and the new owners will be subject to the easement. Any proceeds derived from the future sale of the land must be utilized for noise mitigation purposes.

#### **Timeline**

The acquisition and relocation process takes 12-18 months depending upon the relocation needs of the occupants.

#### **Advantages**

- Allows property owners to sell to the sponsor immediately, pending available funding
- There are no other viable mitigation options for homes located in the highest noise levels

#### **Disadvantages**

- Jurisdiction(s) would lose ad valorem tax revenue
- The Airport sponsor obtains ownership of the property, which would result in costly
  maintenance to prevent deterioration including: lawn maintenance, securing from vandalism
  and theft, which increases administrative costs to the project

[END OF MEMORANDUM]

<sup>&</sup>quot;Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs"; the Uniform Standards of Professional Appraisal Practice ("USPAP"); and all state, local and FAA standards.

<sup>&</sup>lt;sup>18</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", e. "Acquire Land for Noise Compatibility", (2) The land must be included on (2) Noise Land Inventory Map and the Noise Land Reuse Plan. APP-400 maintains current guidance on noise land inventory and reuse plans.



MEMO

123 North Washington St., 3rd Fl. Boston, Massachusetts 02114 T 617.790.3747 F 617.790.3748 www.jonespayne.com

Date: February 23, 2018

**To:** BTV NCP Technical Advisory Committee Members

From: Sarah Degutis, Project Manager

**Subject:** Noise Compatibility Plan – Land Use Measures Checklist

cc: Gene Richards, Nic Longo; BTV

This document is intended to provide guidance for technical advisory committee (TAC) members on the Burlington International Airport's Noise Compatibility Plan update. The TAC will be presented with various land use measures over the course of the January 23, 2017 and March 13, 2018 committee meetings and in the supporting technical papers. The intent of the following is to break down areas for the TAC members to discuss with their jurisdictions and provide feedback on as a part of the NCP process versus once a measure has been enacted as part of the implementation process.

#### Areas for feedback during the NCP

#### 1 Residential Sound Insulation

Is residential sound insulation a good option for your community? If not, please share your concerns.

Should residential sound insulation require an easement? (Note: this is the only program offered to residential properties where it is optional)

#### 2 | Community Building Sound Insulation

Is community building sound insulation a good option for your community? If not, please share your concerns.

Should schools be prioritized separately than the homes by DNL?

Would you prioritize them at the start of a program before residential programs, at the end or keep them where they fall in the contour for priority?

#### 3 Sound Barriers and Buffers

Are sound barriers or buffers a good option for your community? If not, please share your concerns.

#### 4 | Sales Assistance

Is sales assistance a good option for your community? If not, please share your concerns.

#### 5 | Purchase Assurance



Is purchase assurance a good option for your community? If not, please share your concerns.

#### 6 Easement Acquisition

Is easement acquisition a good option for your community? If not, please share your concerns.

#### 7 Land Acquisition and Relocation

Is land acquisition and relocation in the noise impact area a good option for your community?

If not, do you agree that land acquisition and relocation be offered to those properties located in the highest noise impacted areas (75+ DNL) where other noise mitigation programs are not available?

#### 8 Avigation Easement

Based on the examples provided, what items seem reasonable for inclusion in an easement?

Based on the examples provided, what items would your jurisdiction not want to see an easement?

Does your jurisdiction have concerns there may be neighborhoods where some properties have easements (sales assistance/purchase assurance) and other properties do not have easement (potentially sound insulation).

#### Areas of feedback during program planning and implementation

#### 1 | Sound Insulation

Should the sound insulation of the Chamberlin School be prioritized over all other measures for the residential properties?

**NOTE:** Other decisions on the order of noise mitigation programs, pace of the sound insulation and other programs, number of homes in each grant, etc. will be determined by the Airport sponsor working with the local FAA ADO and consultant team.

2 Does your jurisdiction have a preference on which noise mitigation program should be implemented?

Memo: Noise Compatibility Plan - Land Use Measures Checklist

#### BURLINGTON INTERNATIONAL AIRPORT

## NOISE COMPATIBILITY PROGRAM TECHNICAL ADVISORY COMMITTEE MEETING SUMMARY (#4)

March 22, 2018

#### **BTV STAFF/CONSULTANTS:**

Nic Longo, BTV (Chair)

Gene Richards, BTV (Vice Chair)

Larry Lackey, BTV

Erin Desautels, Vermont Small Business Accelerators, LLC

Diane Carter, Jones Payne Group

Sarah Degutis, Jones Payne Group (on phone)

Brad Nicholas, HMMH

#### TAC MEMBERS:

Chris Tumilowicz, Vermont Air National Guard Richard Lizzari, Vermont Air National Guard

John Johnston, Vermont Army Guard George Maille, Jr., South Burlington Carmine Sargent, South Burlington Paul Conner, South Burlington Planner

Steve Wisloski, South Burlington School Board

Robert McEwing, Essex

Jessie Baker, Winooski City Manager Patrick Gallivan, St. Michael's College

#### **PUBLIC ATTENDEES:**

Steve Marriott, South Burlington Diana Camini, South Burlington

Miranda Jurswad, The Other Paper

#### 1.0 WELCOME and OVERVIEW

Nic Longo, Aviation Deputy Director, opened the meeting at 5:05 PM. Introductions were done.

#### 2.0 PUBLIC FORUM AND COMMENTS

There were no comments from the public at this time.

#### 3.0 NOISE EXPOSURE MAP PROGRESS UPDATE

Nic Longo announced the Airport received funding approval for the Noise Exposure Map (NEM) to be updated. The intent is to have it submitted to the Federal Aviation Administration (FAA) by the end of the year. The NEM update is a federal process which creates an opportunity for public input. Since this process will be fast-tracked, the

March 22, 2018 Page 2

Airport is recommending the Noise Compatibility Plan (NCP) be put on hold until the updated NEM is made available to the public for review.

Nic Longo announced the Airport will hold Sound Mitigation Committee meetings during the NEM Update to continue the dialogue with the communities regarding sound issues.

The TAC will reconvene to discuss the final recommendations in the Noise Exposure Map in the third quarter of the year. The NEM will be submitted in to the FAA by the end of the year and the NCP will be submitted shortly thereafter. The NEM will include F35A operations.

Brad Nicholas, HMMH, updated the committee with specifics regarding the NEM Update. He stated NEM will look at two timeframes, the year of submission (2018) and the 2023 forecast year. The 2018 map will show existing conditions for operations for the last 12 months including the F-16. The five year forecast map (2023) will include operations from the F-35A. He reviewed the project schedule noting there is a short timeframe to collect data, evaluate compatible land uses, obtain public input and submit to the FAA for approval.

Nic Longo said the TAC will meet to discuss the first draft of the public document when it is available.

George Maille asked if the fleet mix is unchanged commercially. Nic Longo said there are no significant changes to the commercial aircraft fleet.

#### 4.0 CHAPTER 4 – RECOMMENDED NCP REVISIONS (Part 2)

The consultant team reviewed a number of noise mitigation programs that could be adopted for use at the Airport for properties located in the 65 and higher DNL noise contour. The consultants reviewed each program, a summary of implementation and the advantages and disadvantages. The programs the consultant team reviewed were:

#### Sound Barriers & Buffers

Brad Nicholas reviewed the construction of a sound barrier or buffer between the Airport and the adjoining residential area. He emphasized the following key points:

- Sound barriers work best if close to the source of the sound and must have adequate height in order to provide a benefit.
- Tall structures cannot be placed close to the runway so as to avoid conflicts with aircraft operations. Therefore, the use of barriers can often not be practical for neighborhoods that are very close to the runway
- Once of the disadvantages is that a high wall on the residential side of the airfield may be obtrusive to the residents who live adjacent to it
- FAA requires barriers provide a noise reduction of five decibels (dB) for the non-compatible area (i.e. the 65 dB DNL). For those properties that receive the

- noise reduction benefit from the barrier, they are not eligible for other types of mitigation such as sound insulation.
- The FAA requires that an Airport undertake the construction of a barrier prior to implementing any other noise mitigation program so the noise reduction benefits can be measured
- The design and construction of a barrier can be very expensive...

#### Comments Regarding Barriers:

➤ Paul Conner asked if the decibel reduction is inside or outside the residence. Also, what are the target locations are for a barrier.

Brad Nicholas said there must be a 5 dB improvement (reduction). He stated that should the NCP include a recommendation for a barrier, then further analysis will be conducted to identify the area where a barrier could be useful. Paul Conner commented there may not be a dramatic contribution to decibel levels, but there is a quality of life impact. Brad Nicholas said the FAA will not provide funding for mitigation unless a five dB reduction can be demonstrated. He noted some airports have built a barrier at their own cost. Nic Longo said the Airport is looking at whether the addition of an acoustic barrier material to the Airport boundary fence will help with reducing aircraft ground noise in the residential neighborhoods. Gene Richards said there are things the Airport can do to reduce ground noise and which will be documented in the NCP.

➤ Paul Conner asked if it is advantageous to put a barrier in the NCP as a mitigation measure and decide later whether to build it.

Brad Nicholas said the purpose of the NCP is list items the Airport wants to secure FAA funding. He noted there is no advantage to including a recommendation that will not be funded. Gene Richards said a note will be included in the Noise Compatibility Program that the Airport would like to move forward when working with the community with amenities that may help mitigate noise. Diane Carter noted that a barrier should only be included if it a likely to be built. When considering other noise mitigation program, she recommends that Airport's include any program they think may be feasible for implementation. This allows the Airport to have some flexibility to respond to the changing needs of the community. She noted the purpose for this NCP update is because the current NCP only recommends land acquisition. The more programs included in the Plan, the flexibility the Airport to implement the best program at any given time.

Carmine Sargent asked how much money has been spent on home purchases.

Nic Longo said staff would have to compile the number over the life of the program. In the last five years, he estimated close to \$40 million has been spent. Carmine Sargent commented it is hard to understand that a barrier to help the community is too expensive when the airport has spent so much money buying

March 22, 2018 Page 4

homes to benefit the airport. The barrier should be included in the plan. A barrier labeled as an "expensive measure" is not nearly as expensive as has been spent on home purchases. Ms. Sargent requested a comparison of the cost of the home purchases to that of building a barrier. The barrier was the most popular choice in the survey.

#### Sales Assistance

Diane Carter reviewed a typical sales assistance program which is defined as the property owner selling their home on the open market to an willing buyer for fair market value (FMV) as established by an appraisal. The Airport will assist in the sale of the home in exchange for an avigation easement. :

- The program will be designed to ensure there is stability in the affected neighborhood to ensure markets values are not adversely affected by this program.
- The program typically pays for the real estate commission on the transaction to ensure there is consideration for the avigation easement.
- The sales assistance process can be slow depending on market conditions and a sale is not guaranteed.
- The Airports does not possession of the property.
- Houses remain on the tax rolls maintaining the local tax base.
- For individuals who want to move outside of the affected neighborhood, sales assistance may be a good alternative for houses not eligible for sound insulation.

#### **COMMENTS**

➤ George Maille asked if the comparable properties used for the appraisal are located in the affected neighborhood or outside the area.

Diane Carter said the comparables come from the affected neighborhood, however, she will verify with the FAA.

> Jessie Baker asked how to prevent too many houses on the market at once.

Diane Carter said a market absorption study will be conducted to ensure property values are not negatively affected. Typically houses with the highest noise level go in first and go out from there.

➤ The woman asked if a homeowner can put their house on the market and be in the noise program.

Diane Carter said an individual can sell their house at any time. However, to be eligible for this program, the property owners will need to wait for this program to be included in the NCP and approved by the FAA.

March 22, 2018 Page 5

#### Purchase Assurance

Diane Carter reviewed a typical purchase assistance program which is defined as the property owner selling their home to the Airport for fair market value (FMV) as established by an appraisal in exchange for an easement. The Airport will assist sound insulate the home and then sell it on the open market. :

- The market absorption study will include the houses in the purchase assurance program as well as the sales assistance program to ensure market stability.
- This can be a long process where the home remains unoccupied for a long time during the sound insulation process. This may cause concerns in the neighborhood regarding vandalism.
- It is an expensive option which would limit the number of properties that purchased in a year.

#### Purchase of Aviation Easements

Diane Carter refreshed the committee on the definition of an avigation easement. She stated that in addition to the Airport obtaining an easement in exchange for noise mitigation, the Airport can also implement a program where the easement is purchased for cash. Some important items to know are:

- Easements for noise are typically less than \$10,000.
- The value is determined by an FAA process.
- Wording for the easement is not yet finalized.
- This is an options for affected properties that are not eligible for sound insulation but want to remain in the neighborhood.

#### **COMMENTS**

➤ Paul Conner asked if a homeowner who is eligible for sound insulation can choose to just obtain a cash payment for the easement.

Diane Carter said that it could be possible to offer this as part of the mitigation program. However, it would be a discussion for the committee and the Airport to determine whether this is viable program they want to offer. After some discussion by the group, Diane Carter indicated the noise mitigation program can be designed to fit this community and if they want to offer easement acquisition to only those properties not eligible for sound insulation that can be a policy decision.

➤ Jessie Baker asked if there are any examples of communities partnering with sound mitigation funding to funding for property improvements.

Diane Carter said there is examples of Airports that partner with local programs to create a greater benefit for the owner. It has to be carefully crafted to ensure the Airport is not violating any grant assurances. Ms. Carter gave examples of Airports partnering with local energy or utility companies to provide a greater benefit with regard to heating and cooling system by obtaining rebates. Ms. Baker stated that Winooski has a program to assist owners of rental properties and

wondered if that would be possible. Ms. Carter stated it would be a good discussion to have once the plan is finalized.

➤ Jessie Baker asked the consultants to provide the list of Airports where there are partnerships to improve properties.

Nic Longo said discussions have begun with Efficiency Vermont, BED, and Vermont Gas with regard to the Airport's upcoming program.

#### Land Acquisition and Relocation

Diane Carter stated Part 150 land use guidelines state that structures (houses, public buildings, schools) within the 75 dB DNL should be purchased. It is not feasible to mitigate noise impact with other programs. She briefly reviewed the acquisition and relocation process. She noted this was not being recommended for areas in lower noise contours.

#### Comparison of Programs and Costs

Ms. Carter reviewed a table which identified the number of homes that could be treated by program if the Airport received a \$5 million grant. The discussion review the type of program, estimated cost per home, and the average number of homes for that grant.

#### **COMMENTS**

➤ George Maille asked if it is better to seek more funding for each program rather than lump all into one AIP.

Diane Carter explained the Airport could certainly apply for individual grants for each approved program. It may be better to have the grant structured with multiple programs. This would allow the Airport the flexibility to use the money for a particular program that has more interest. She gave the example that if a grant is for a specific program and no one wants to participate, the money in that grant can't be used for anything else. If the grant has multiple programs, it is easier for the FAA to approve the use the funds if the need changes.

Gene Richards pointed out the noise program is an FAA program that is only available if funding is available.

- ➤ Paul Conner asked if the money received from the sale of the purchase assurance could be reused by the noise program to help fund additional purchases.
  - Diane Carter stated the any proceeds from the sale of a home are required to be used for noise mitigation purposes.
- ➤ Paul Conner asked the summary comparison slide be revised to show the additional funds that could be used to purchase additional homes.

March 22, 2018 Page 7

#### 5.0 TAC QUESTIONS & COMMENTS

There was discussion of waiting to receive the updated information on the NEM before moving forward. The consensus is to cancel the May 2018 TAC meeting and reconvene the Sound Mitigation Committee in June pending receipt of the updated information.

Jessie Baker requested a schedule be drafted showing both processes and when the information will be available to the public.

Paul Conner said it would be helpful to inform the public of which measures are the priority before there is a draft plan.

The committee discussed the topic for the June Sound Committee meeting could be focusing on the language of the avigation easements. Gene Richards also stated there could be a separate working committee to discuss easement language as well.

#### 6.0 WRAP UP & ADJOURNMENT

Future Meetings & Agenda Items:

- TAC meetings on hold until NEM contours developed
- Sound committee will be reinstated with Q2 meeting
- Fall 2018 NEM Public Hearing

With no further business and without objection the meeting was adjourned at 6:28 PM.

# BTV NCP TAC Meeting #5 September 19, 2019

## **BURLINGTON INTERNATIONAL AIRPORT**

# Technical Advisory Committee Meeting DATE: September 19, 2019 SIGN-IN SHEET

		SIGN-IN SHEET	
#	NAME	ADDRESS/COMPANY NAME	PHONE NUMBER/ EMAIL
1	1305 McEwing	Hortheast Disport	Mc Ewing@ HELCVT
2	TIM MCCOLE	HERITAGE	914 356 2161 TIM MCCOLE @ FLYHERITAGE
3	Chris Magan	406 N. Brownell Rof Williston, VT.	Morganowal comeast. net
4	Donna Constantineau	1730 ES 54921 Williston, VT05495	donnamarie « papermoon a con con
5	COL John Johnstu	VTARNO	John.m. Johnston Phile Muil.mil
6	John Klesch	Stitzel Page Metchen for. SBSch. Dist.	jklesch e Eirmspf. co
7	Jim Duncou	26 Hallst Winooski Winooski (**Hulounii)	jduncane winouskith
8	Richard Lizzani	VTNG Colcher 709 NAFAMI GIRL FA	12had-2/2121 - unecestin
9	Jessie Baker	City of Windoski	Joaker@winoskiut.
LO	Paul Conner	South Buttingles	J Pronnere short con
1	Tim George	7 Brandymu &, Bort.	tgeorye@burlisher.gov
2			
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# **AGENDA**

# BTV Noise Compatibility Program (NCP) Technical Advisory Committee Meeting September 19, 2019

5:00 p.m. - 6:30 p.m.

Conference Room 3

Teleconference for those who are unable to attend:321-586-0839 PIN: 818 198 348#

5:00 – 5:10	Welcome and overview of agenda
5:10 – 5:20	Public forum and comment period
5:20 – 5:30	Update of Noise Exposure Map
5:30 – 6:00	Review City's Recommended Noise Compatibility Program & next steps
6:15 – 6:30	Technical Advisory Committee questions and comments
Adjournment	



#### **Public Forum and Comment Period**



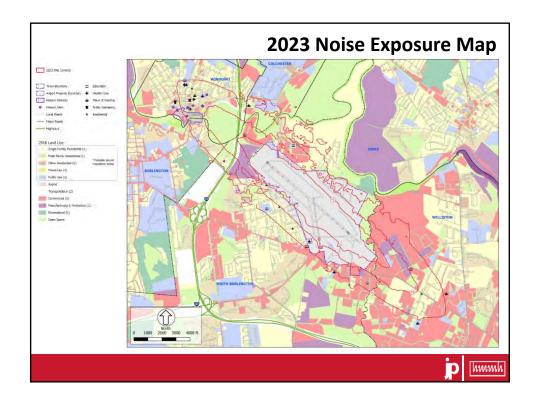


# **Purpose of TAC**

- The TAC is advisory to the City solely for purposes of the BTV Part 150 Study, including:
  - Review of study inputs, assumptions, analyses, documentation, etc.
  - Input, advice, and guidance related to Noise Compatibility Plan (NCP) development
- The City shall respect and consider TAC input, but must retain overall responsibility for the Part 150 Study and NCP recommendations
- The TAC and City recognize FAA is responsible for accepting Noise Exposure Map (NEM) and NCP submissions and for approving NCP measures
- TAC members represent the interests of their organization and/or constituents
- TAC members are expected to provide two-way communication between the City and their organizations / constituents







# Noise Exposure Map

- Open House held on May 29 and May 30, 2019
- NEM to be submitted to FAA on September 23, 2019
- Final document available on www.BTVSound.com



# **Estimated Population and Dwelling Units**

Table 5. Estimated Residential Population within for 65 dB DNL Historical Contour Cases Sources: US Census (2010), Jones Payne Group (2018)

65 dB Day-Night Average	Estimated Dwelling Units and Population	Land Use inventoried and Depicted for this 2018/2023 NEM <sup>2</sup>			Comparable Previously Documented Values
Sound Level, DNL Contour		On Single Family Parcels	On Multi- Family & Mined Use Parcels	Estimated Total	Estimated Total
	Dwelling Units	616	203	819	976 1
2015 Noise Exposure Map	Population	1,429	471	1,900	2,267 (2,531) <sup>1</sup>
"ANG Scenraio 1" Contour	Dwelling Units	1.186	1.758	2,944	2,963 *
from the USAF's September 2013 FEIS, Figure BR3.2-8.	Population	2,752	4,079	6,830	6,663
and and	Dwelling Units	134	30	164	
2018 Noise Exposure Map	Population	311	70	380	
	Dwelling Units	890	1,750	2,640	
2023 Noise Exposure Map	Population	2,065	4,060	6,125	





#### **NCP GOALS & OPTIONS**

#### Noise Compatibility Program (NCP) **Update Project Focus and Goals:**

- Goal is to find ways to transition from land acquisition to other land use measures
- Focus is on updating land use measures
- · Recommendations will be based on the 2023 noise contour
- Mitigation options must:
  - · Meet eligibility requirements for federal funding under FAA guidelines
  - Provide a benefit to the local residents; especially those that are in non-compatible areas identified on the FAA accepted
- · Mitigation measures will be evaluated using factors such as:
  - · Technical feasibility
  - · Impacts to residents
  - Cost
  - Schedule



# **Recommended Monitoring & Review Elements**

#### Monitoring & Review of NEM & NCP

- Update of NEM one year after full operation of F35 aircraft
- Estimated funding in FFY2021.

#### **Flight Track Monitoring**

Acquisition of a flight track monitoring system



### **Recommended Land Use Measures**

#### **Land Acquisition & Relocation**

- Property located in the 75 DNL contour
- Voluntary purchase of residential units from owner using federal guidelines
- Relocation benefits for the occupants
- Demolition of structure
- Land reuse study for compatible use of land



#### Sound Insulation

- Property located in the 65 70 DNL contour
- Property located in the 75 DNL where majority of property is outside the 75 DNL
- No avigation easement

#### Residential

- Installation of acoustical windows and doors
- Reduce interior noise level to 45 dB DNL
- Must have existing interior noise level above 45 dB
   DNL to qualify
- Owner remains in home

#### **Community Buildings**

 Eligible community buildings include schools and other noise sensitive buildings.



#### **Recommended Land Use Measures**

#### **Sales Assistance**

- Property located in the 65 70 DNL contour
- Avigation easement required
- Airport assists with the sale of the home on the open market; airport does NOT take possession of property
- Homeowner enters program by signing agreement which includes:
  - Homeowner to list property at Fair Market Value (FMV)
  - Homeowner to convey Avigation Easement prior to sale of home
  - Airport guarantees they will provide a differential to assist in the sale of the property if seller receives an offer of less than FMV
- Owner / Occupant does not receive relocation benefits

#### **Purchase Assurance**

- Property located in the 65 70 DNL contour
- · Avigation easement required
- Airport takes possession of property and resells it on the open market
- Homeowner enters program by signing agreement which includes:
  - Homeowner to sell property at appraised Fair Market Value (FMV)
  - Homeowner to convey Avigation Easement prior to sale of home
- Owner / Occupant does not receive relocation benefits
- Airport maintains and preserves property during the sound insulation process







#### **Recommended Land Use Measures**

Below are the estimated average cost for each program per home and the number of properties that would be eligible based upon a \$5 million grant

Program		t Per Home	# of Homes
Sound Insulation	\$	54,000	93
Sales Assistance	\$	35,520	141
Purchase Assurance	\$	355,200	14
Acquisition & Relocation	\$	407,000	12

Note: Cost per home is based upon actual costs from BTV Airport programs or the New England Region plus 20% administration costs





# **NCP Next Steps**

- NCP Public Hearing Thursday, October 24
- Submit NCP to FAA December 2019
- Anticipated NCP Approval June 2020



# **TAC** questions and comments

Primary NCP Contact: Diane Carter, Project Manager The Jones Payne Group BTVsound@jonespayne.com 617-790-3747





# BURLINGTON INTERNATIONAL AIRPORT PART 150 NOISE COMPATIBILITY PROGRAM UPDATE (NCP) RECOMMENDED NOISE MITIGATION PROGRAM

#### **UPDATED SEPTEMBER 23, 2019**

#### Introduction

The purpose of this paper is to provide the Technical Advisory Committee (TAC) with the recommended noise compatibility program (NCP) for Burlington International Airport. These recommendations are based upon feedback from the committee members, written comments from local jurisdictions including South Burlington and Winooski and public comments received at the Noise Exposure Map Open House.

The purpose of this NCP update is to develop a more robust noise mitigation program focused on community-based programs which are designed to preserve and enhance the existing land use rather than a program focused on changing the existing land use. The City prefers the local surrounding residential areas to remain as a source of affordable housing and stability for the area. All programs are recommended to be voluntary.

Upon approval of the NCP by the FAA, the City will undertake the development of a noise implementation plan which will develop key policies, funding, and phasing priorities and schedules.

#### 2018 and 2023 Noise Exposure Map

The Noise Exposure (NEM) Map Update identified the existing and projected aircraft operations and associated noise exposure. This update was undertaken to accurately assess the anticipated impacts of the transition of Vermont Air National Guard from F16 to F35 military aircraft operations.

The 2023 noise contour is anticipated to elongate along the ends of Runway 15/33 and contract along the sideline bringing a larger impact to the north into the Town of Winooski and reducing the number dwelling units in South Burlington when compared to the 2020 contour.

#### **Estimated Population and Dwelling Units**

The 2018 and 2023 Noise Exposure Map document provides detailed analysis of the estimated affected population and land. Table 4, Estimated Residential Population within the 2018 and 2023 Contour Cases and Table 5, Estimated Residential Population within the 65 dB DNL Historical Contour Cases delineate the population and dwelling units by jurisdiction for each noise contour band.

The table below presents the summarized estimated residential population within the 2023 NEM contour. These estimates were developed by counting the dwelling units within each contour band and assuming the average household size for the units within the Census blocks is 2.32 residents.

The table below summarizes the total population and dwelling units that located within the 65 and higher dB DNL contour. These dwelling units will be eligible for the FAA approve d noise compatibility program providing they meet FAA participation requirements.



#### Estimated Population and Dwelling Units within the 2023 Noise Contours

Day-Night Average	Estimated Dwelling	Single	Multi-Family	Estimated
Sound Level (DNL)	Units and	Family	&	Total
	Population	Parcels	Mixed Use	
			Parcels	
65 -70 dB Contour	Dwelling Units	781	1,563	2,344
	Population	1,812	3,626	5,438
70-75 dB Contour	Dwelling Units	97	186	283
	Population	225	432	657
75 dB+	Dwelling Units	12	1	13
	Population	28	2	30
Total	Dwelling Units	890	1,750	2,640
	Population	2,065	4,060	6,125

#### **Noise Compatibility Program Recommendations**

The NCP is comprised of three types of measures; 1) airport operations, 2) monitoring and review and 3) land use. Below are the measures the City intends to include in the NCP.

#### **Airport Operations Measures**

No new aircraft operations measures are being considered under this update. A summary of actions taken under the previous NCP is contained in the Noise Exposure Map document, Chapter 4, Existing Noise Compatibility Program.

#### **Monitoring and Review Elements**

#### Ongoing Monitoring & Review of NEM and NCP Status

This measure provides for the revision of the NEM and NCP when unanticipated changes in the level of airport activity occur.

Recommendations: The City recommends the NEM and NCP documents are updated when necessitated by operational changes. The Airport is committed with the Vermont Air National Guard to a joint NEM update one year after the operation of the F35 aircraft. This update is anticipated to be funded in FFY2021.

#### Noise Monitoring and Flight Track Monitoring

Acquisition of noise monitoring and flight tracking system will provide the City, public and operators with information regarding aircraft operations.

Recommendation: The City recommends the purchase of a noise monitoring and flight tracking system.



#### **Land Use Measures**

The City will utilize the 2023 NEM future contour as the means of determining eligibility and implementation for the land use measures recommended.

The properties must be within the 65 dB DNL or higher noise contour for which the land use is considered not compatible (49 USC § 47502, as implemented by Table 1 of Appendix A in 14 CFR Part 150). The requirements for implementing these types of programs is defined by the FAA in accordance with Appendix R "Noise Compatibility Planning/Projects" of FAA Order 5100.38D "Airport Improvement Program (AIP) Handbook<sup>1</sup>".

#### Land Acquisition and Relocation

Non-compatible land use includes residences within the 65 dB DNL contour. Eligible property owners will be paid fair market value for their property at the highest and best rate, and provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the "Uniform Act") and implementation of Department of Transportation (DOT) regulations. The City, in coordination with applicable jurisdictions, will define program boundaries and identify options for compatible reuse of the acquired properties.

Recommendation: The City recommends land acquisition and relocation for non-compatible residential land use within the 75 dB DNL and higher noise contour where the majority of the parcel is located within the contour. It is no longer recommending acquisition for land below 75 dB DNL.

#### Sound Insulation of Residences and Noise Sensitive Buildings

Qualified incompatible residential and noise sensitive land uses within the 65 up to 75 dB DNL contours and residential land use located within the 75 dB DNL noise contours where the majority of the parcel is located outside the 75 dB DNL contour would be included in a sound insulation program. For qualified properties, the City will provide an acoustical treatment package designed to reduce interior noise levels to 45 DNL and a minimum reduction of 5 dB from the existing interior noise level in accordance with FAA guidelines<sup>2</sup>.

Recommendation: The City is recommending sound insulation for residential and noise sensitive land within the 65 up to the 75 dB DNL noise contour. It is recommending sound insulation for residential land located in the 75 dB DNL where the majority of the parcel is not located within the 75 dB DNL contour. The City will not require an avigation easement.

#### Purchase Assurance Program<sup>3</sup>

Qualified incompatible residential and noise sensitive land uses within the 65 up to 75 dB DNL contours would be included in a purchase assurance program. The City would acquire the home in exchange for an avigation easement, provide sound insulation and resell the home on the open market for fair

<sup>&</sup>lt;sup>1</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", Change 1, effective date February 26, 2019.

<sup>&</sup>lt;sup>2</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", Change 1, effective date February 26, 2019.

<sup>&</sup>lt;sup>3</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", f. "Acquire Easement for Noise Compatibility"

market value. Proceeds from the sale of the home would be utilized to fund further noise mitigation programs. Land use includes eligible properties within the 65 dB DNL noise level or higher for which the land use is considered non-compatible. (49 USC § 47502, as implemented by Table 1 of Appendix A in 14 CFR part 150).

Recommendation: The City is recommending a purchase assurance for non-compatible land use within the 65 up to 75 dB DNL noise contour. Per FAA requirements an avigation easement will be required.

#### Sales Assistance Program<sup>4</sup>

Qualified incompatible residential and noise sensitive land uses within the 65 up to 75 dB DNL contours would be included in a sales assistance program. In exchange for an avigation easement, the City would provide an incentive to assure homeowners receives fair market value for the sale of their home on the open market. Land use includes eligible properties within the 65 dB DNL noise level or higher for which the land use is not considered to be compatible as well as those properties approved by the FAA for neighborhood equity<sup>5</sup>. (49 USC § 47502, as implemented by Table 1 of Appendix A in 14 CFR part 150).

Recommendation: The City is recommending a sales assistance program for non-compatible land use within the 65 up to 75 dB DNL noise contour where properties are not eligible for sound insulation. Per FAA requirements an avigation easement will be required.

[END OF MEMORANDUM]

<sup>&</sup>lt;sup>4</sup> FAA Order 5100.38D Appendix R, Table R-6 "Noise Compatibility Planning/Project Requirements", f. "Acquire Easement for Noise Compatibility"

<sup>&</sup>lt;sup>5</sup> FAA Order 5100.38D "Airport Improvement Program Handbook", Appendix R "Noise Compatibility Planning/Projects", Change 1, effective date February 26, 2019.

#### BURLINGTON INTERNATIONAL AIRPORT

## NOISE COMPATIBILITY PROGRAM TECHNICAL ADVISORY COMMITTEE MEETING SUMMARY (#5)

**September 19, 2019** 

#### **BTV STAFF/CONSULTANTS:**

Nic Longo, BTV (Chair)

Gene Richards, BTV (Vice Chair)

Larry Lackey, BTV

Bill Keogh, Burlington Airport Commission

Erin Desautels, Vermont Small Business Accelerators, LLC

Diane Carter, Jones Payne Group

Christina Mastrantonio, Jones Payne Group

Bradon Robinette, HMMH

#### **TAC MEMBERS:**

Richard Lizzari, Vermont Air National Guard

John Johnston, Vermont Army Guard Paul Conner, South Burlington Planner Robert McEwing, Town of Essex Jessie Baker, Winooski City Manager Kevin Dorn, City of South Burlington Jonathan D'Amore, St. Michael's College

Tim McCole, Heritage Aviation

#### **PUBLIC ATTENDEES:**

Tim George, City of Burlington

John Klesch, Stitzel Page Fletcher, for SB School District

Jim Duncan, Winooski City Council

Chris Morgan, Williston

Donna Constantineau, Williston

Richard Doucette, FAA, New England Region

#### 1.0 WELCOME and OVERVIEW

Gene Richards, Aviation Director, opened the meeting at 5:05 PM. Introductions were done.

Nic Longo thanked the members of the Technical Advisory Committee for their support in updating the Noise Compatibility Program and hopefully come to a final decision on the recommended program.

#### 2.0 PUBLIC FORUM AND COMMENTS

Donna Constantineau stated the arrival of the F35 woke her out of a deep sleep. They are far louder than the F16 aircraft. She feels the quality of life for these people is affected as

well as property values. She expressed disappoint that her home does not fall within the noise mitigation area.

#### 3.0 NOISE EXPOSURE MAP PROGRESS UPDATE

Diane Carter thanked the TAC for all their hard work as we approach this final step. She recognized the TAC's request to halt the NCP process in order to develop updated noise exposure maps that included the F35 operations allowing for the Airport, the neighboring jurisdictions and the community to have a more accurate understanding of the anticipate noise levels and the affected areas.

She reviewed the 2023 Noise Exposure Map which was submitted to the FAA on September 23, 2019. She noted upon approval by the FAA, it will become map used for defining the noise mitigation areas. She highlighted the 66 DNL, noting the line moves around a bit more accurately reflecting the terrain around the airport. She added the map also reflects the noise sensitive buildings including schools, places of worship and daycare facilities. This map includes the additional buildings noted by the Town of Winooski in its written comments. She stated all written comments received from the two Open Houses were included in the submission. The Airport is in the process of reviewing those comments and will post a response on the BTVSound.com

#### 4.0 RECOMMENDED Noise Compatibility Program (NCP)

The consultant team reviewed the programs that will be included in the NCP. These recommendations are based on the input received from the City of South Burlington and the City of Winooski as well as additional written comments from other affected entities and individuals. The recommended program includes:

Monitoring & Review Elements:

- Monitoring and Review of NEM & NCP
- Flight Track Monitoring System The group held a discussion rega

The group held a discussion regarding the flight tracking system. It was noted if approved the grant would be for the purchase of a system and would not include the annual maintenance contract. A discussion about adding noise monitors to the system was held. Data collected by the noise monitoring system would not be used in the development of future contours. The radar data would be utilized to develop the model flight tracks. The contour will be generated by the noise modelling software, AEDT. It was decided this recommendation would be amended for a Noise Monitoring and Flight Tracking System. Richard Doucette stated the DOD would be contributing to the update of the noise map one year after the F35 have been in operation. DOD should have more updated information about actual aircraft operations.

Recommended Land Use Measures (Voluntary):

Diane Carter reviewed the recommended land use measures.

Paul Connor noted the Airport's recommended NCP closely mirrors the City of South Burlington's recommendations. He thanked the Airport for their collaborative approach to this process.

- Land Acquisition & Relocation for properties in the 75 DNL and higher contours
- Sound Insulation for residential properties and noise sensitive buildings:
  - o Located from the 65 DNL up to the 75 DNL contour and
  - Located in the 75 DNL where the majority of the home is located outside the 75 DNL contour and the owner has declined acquisition
  - o No avigation easement
- Sales Assistance for residential properties
  - o Located from the 65 DNL up to the 75 DNL contour
  - o Avigation easement required
  - o Eligible properties that do not qualify for sound insulation
- Purchase Assurance for residential properties
  - o Located from the 65 DNL up to the 75 DNL contour
  - o Avigation easement required

Jessie Baker asked what language would be used for the avigation easement. Diane Carter stated the avigation easement language hasn't been finalized. This would be an activity for the Sound Committee moving forward during the development of the noise implementation program. Nic Longo stated the Airport intends to restart the Sound Committee in December 2019 with a focus on crafting the noise implementation plan including phasing, priorities, and policies for each of these programs.

A community member asked if the Fair Market Value (FMV) is determined today or when the property is sold. Diane Carter stated the FMV is determined at the time of the sale of the property. The appraisals are based on sales of homes in the area.

Diane Carter review the estimated average cost per home for each of these program based on a \$5 million grant. Paul Connor stated there would be additional funds added to the noise mitigation program upon the sale of any properties that participate in the purchase assurance program.

Diane Carter stated the NCP will not contain any recommendations for the acquisition of easements. It will also not include any recommendation for sound barriers or walls. With regard to sound barriers, it does not prohibit the potential future development of a sound wall or barrier. It will not be eligible for FAA funding. If this were included in the NCP, the homes located adjacent to the barrier may become ineligible for other types of mitigation since the barrier would be providing noise reduction.

#### Comparison of Programs and Costs

Ms. Carter reviewed a table which identified the number of homes that could be treated by program if the Airport received a \$5 million grant. The discussion review the type of program, estimated cost per home, and the average number of homes for that grant.

Page 4

#### 6.0 WRAP UP & ADJOURNMENT

Future Meetings & Agenda Items:

- NCP Public Hearing is scheduled for October 24, 2019
- NCP to be submitted to FAA at the end of the year
- Approval expected prior to May 1, 2020
- Sound committee will be reinstated

With no further business and without objection the meeting was adjourned at 6:18 PM.

Public Hearing Meeting Notices





BURLINGTON INTERNATIONAL AIRPORT Public Hearing Screen Captures October 28, 2019



## Front Porch Forum – Screen Captures

#### Public Hearing, October 24, 5-7pm

Nic Longo, Burlington International Airport • nlongo@btv.aero • Airport Drive, South Burlington Calendar

Event: Oct 24, 2019, 5:00 PM to 7:00 PM

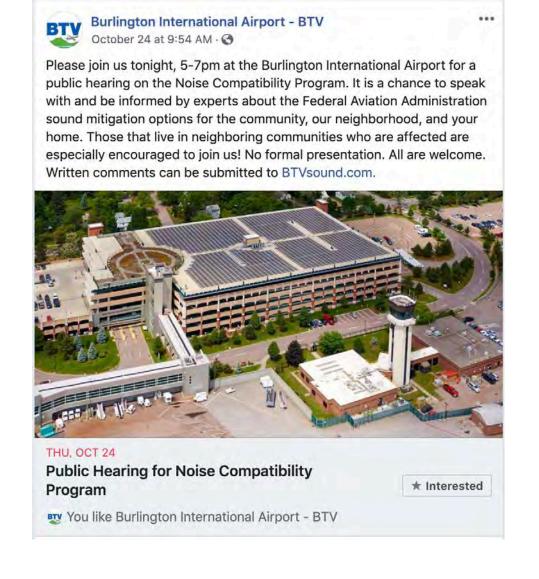
Please join us October 24th, 5-7PM, at the Burlington International Airport for public hearing. It is a chance to speak and be informed with experts about the Federal Aviation Administration sound mitigation options for the community, our neighborhood, and your home. Those that live in neighboring communities who are affected are especially encouraged to join us! No formal presentation. All are welcome. Written comments can be submitted to BTVsound.com.

EMAIL AUTHOR REPLY TO FORUM

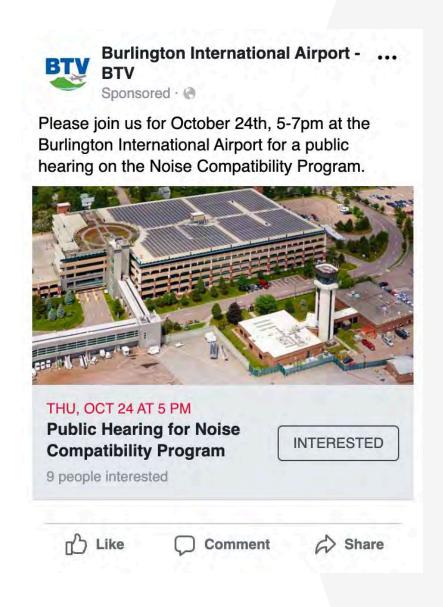
Posted to South Burlington and Winooski communities.



## Front Porch Forum – Facebook







Total Impressions: 33,265

All Clicks: 244



## Community Papers

October 24, 2019 · Williston Observer · Page 5

#### **NONPROFIT NEWS**

### **Recovery Vermont: looking for difference-makers**

Recovery Vermont is now enrolling for its Dec. 2-6 Recovery Coach Academy.

The academy offers a nationally recognized recovery coach certification through the teaching of evidence-based skills, like motivational listening, that support people in

recovery from substance use disorders.

The role of the Certified Recovery Coach is to assist individuals in achieving sustained recovery from the effects of substance use disorders. Recovery coaches serve in a supportive role within a community or treatment setting. They are a role model, mentor, advocate and motivator that substantially improve an individual's ability to sustain Girls on the Run incorporates running to teach life skills,

ny, which will take place in Montpelier. Contact Melissa to engage teams of girls in fun, interactive lessons. Teams

**EXPLORE** 

**DISCUSS** 

**PUBLIC HEARING** 

NAVIGATING OPTIONS THURSDAY, OCT. 24, 5-7PM

AT BURLINGTON INTERNATIONAL AIRPORT

Submit Written Comments at BTVSOUND.COM

#### Coaches sought for Girls on the Run

Girls on the Run Vermont is seeking coaches for its 10-

The program serves girls in grades 3-8 at 176 sites across Vermont. The Williston-based nonprofit is recruiting coaches to lead groups of eight to 20 girls. Visit gotrvt.org/coach for more information or to register.

encourage personal development and foster team building A number of full scholarships are available for the academand community service. Volunteer coaches use a curriculum Girls on the Run groups meet twice a week for 90 minutes for a

meet twice a week for 90

old. All volunteer coaches



The importance of the program was highlighted by a 2018 minutes, and the program study from Claire Shipman and Katty Kay, the authors of culminates with all teams "Confidence for Girls," which found that from age 8 to 14, participating in a celebratory girls' self-confidence falls by 30 percent.

Almost all girls (97 percent) who participate in Girls Coaches do not need to be on the Run said they learned critical life skills including unners, but are required to managing emotions, resolving conflict, helping others or be a minimum of 18 years making intentional decisions — skills they are using at home, at school and with their friends. Girls who were the must complete a background least active at the start of the season increased their physical check and attend a training activity level by 40 percent and maintained this increased

373 Blair Park Road #10 - Kismet Building - Willist Order online: www.thescalevt.com



Print Ads ran on October 10<sup>th</sup>, 17<sup>th</sup>, and 24<sup>th</sup> in:

- Williston Observer
- Colchester Sun
- Other Paper

Print Ads ran on October 17th and 24th in:

- Seven Days
- Essex Reporter





## Thank You

Hagan Associates LLC 47 Park Street Essex Jct., VT 05452

Phone: 802-863-5956 info@haganmarketing.com www.haganmarketing.com

Public Hearing Transcript



#### BURLINGTON INTERNATIONAL AIRPORT

PUBLIC HEARING RE: NAVIGATING OPTIONS
HELD AT THE BURLINGTON INTERNATIONAL AIRPORT
OCTOBER 24, 2019
5-7 P.M.

CAPITOL COURT REPORTERS, INC.
P.O. BOX 329
BURLINGTON, VERMONT 05402-0329
(802/800) 863-6067
E-mail: info@capitolcourtreporters.com

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MS. BRYANT CARTER: It is 5 p.m. on October 24, 2019. My name is Diane Bryant Carter and I'm going to open the public hearing for the 14 CFR Part 150 Noise Compatibility Program Update for the Burlington International Airport.

The purpose of this event is to allow the public to comment on the Draft Noise

Compatibility Program Report which has been published today and has been discussed at several technical advisory committee meetings and the noise exposure map open house. Study materials are available for viewing on boards located here at the airport.

Comments will be accepted on the draft Noise Compatibility Program Report until Monday, November 25, 2019 at 5 p.m. Comments may be submitted in writing utilizing the comment forms provided at tonight's meeting or through the airport's web site at www.btvsound.com.

The public comment period is now open. We will be accepting comments tonight and responses will be provided in the final report. We request that individuals keep their comments to three minutes in duration. Thank you.

MS. GALLOWAY: My question is I'm very worried about the children in this community losing

their hearing, and that if even one child has a hearing loss who is going to take responsibility for this. Will someone pay for the children to have some — what do I call it — like repair to their hearing, and shouldn't there be a conscious effort right now in all of the schools to get a baseline so that we will know whether the children have been losing their hearing because I think that's going to be criminal if we don't help them.

Written questions. This is from the group.

2.4

Written questions. This is from the group.

They are not my questions, but I think they are important questions and we would certainly like to have an answer. Economic impact questions about the F-35s. When will sound mitigation begin?

How many homes will be mitigated per year?

Does Burlington need to apply every year for this FAA grant?

Is funding dependent on Congress?

How long will it take to do 2540 homes?

How will homes be prioritized for sound mitigation?

Who will cover the 10 percent match in funds that is not covered by the federal grants?

Will the City of Burlington pick up this cost?

1	Will my city have to pick up this cost?
2	Will I have to pay this amount personally?
3	Will my taxes go up if the 10 percent cost
4	for sound mitigation is not covered?
5	Will my school taxes go up if my schools
6	needs more soundproofing?
7	What will be the economic impact on my
8	community in terms of rentals, sales, tourism?
9	Will I be able to sell my home?
10	Who will provide sales assistance and
11	purchase assistance?
12	Will I get the estimated property value of my
13	home?
14	When will the memorandums of understandings
15	with various cities be done?
16	Where and when can I see these MOUs?
17	Until sound mitigation begins, how can I
18	protect my hearing? My children's hearing? My pets?
19	News reports suggest the value of our homes
20	will fall 17 percent in the high noise area. Isn't
21	this an unconstitutional taking of property by
22	government without compensation?
23	My dog has four times more sensitive hearing
24	than I do. If 65 to 100 db sound injures my ears
25	and I can wear ear protectors what's going to

happen to my dog?

If the Chamberlin School is rendered inoperable due to playground and classroom noise from military aircraft, who will pay to replace that school?

If property values fall in the three cities most affected by military aircraft noise, won't that mean that property assessments and, hence, tax revenues will fall?

Will the Air Force make those cities whole?

After a flood, property insurance becomes more expensive or even impossible to get. Should an F-35 crash somewhere in the area will the government provide homeowners with property insurance?

We understand that noise mitigation program may cost up to 100 million with localities on the tab for 10 percent of this. Who, in fact, will pay that local 10 percent?

What about people whose lives and property are impacted, but live just outside the noise zone? Will those families also have access to resources to mitigate impacts?

Why are you holding this event if you really can't answer any questions yet?

Will you hold another meeting when you can

answer questions?

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MR. BEVINS: My name is Bruce Bevins. live at 36 Duval Street, South Burlington, Chamberlin School District. Been here for over 30 years -- 34 years to be exact. My only concerns I'm a veteran, Vermont Air Guard. I have nothing but the utmost respect, and their flying mission they are the best in the country. I'm sure that's why the F-35s are here. I'm just hoping that the FAA and the Air Force will do right by all the neighbors around the airport, both in South Burlington, Winooski, Williston, Essex Junction, that will be impacted by the noise, and hopefully there will be considerations met by scheduling versus times of takeoff and so forth with the local school and surrounding areas so that the noise impact can be as minimal as possible.

Also I feel that the cart got before the horse on this one where knowing what the F-35s were going to be for many, many years that the mitigation for sound and sound exposure maps should have been done before the actual planes arrived. So I'm hoping that it won't be a 4 to 5 or 6-year period to get the monies into this area to make it more liveable for the people in the surrounding areas. Thank you very much.

MS. ADELMAN: Marguerite Adelman from
Winooski. I just talked to the FAA guy and he said
the airport can request some monitoring. They have
done it at Logan and other airports on a regular
basis. So I would like to see the airport or the
City of Burlington request some monitoring as soon as

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possible.

MR. FORLIE: I am here today because I think it's terrible that the 6,000 plus folks that are directly affected by the arrival of this aircraft are not being advocated on behalf of by our elected officials. I feel like they have been forsaken, and my understanding was that when you run for office and win that you're supposed to represent everyone, in particular, the most powerless and disenfranchised in your community, and this hasn't happened with this issue or in this issue.

So I'm not directly affected in terms of living in the noise -- any of the noise zones, but I do live in Burlington. I have aircraft flying over the house regularly and really enjoyed the summer when we didn't have any fighter aircraft taking off. Three months or four months of peace was something special, and I think it was -- I think the stark contrast with that, or between that, and what we're

entering into now with the arrival of these first two aircraft and two each month hereafter until we get the full contingent sets us up for a good before and after, and I'm not pleased with the after.

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I should point out I'm a -- what I call a reformed airline pilot. I'm a former airline pilot, and obviously I come at this issue from maybe a different perspective, but why I stopped flying was because I started seeing -- being increasingly unable to deny the negative consequences of my actions and actions of everyone I worked with, and that was just -- that was just commercial, you know, passenger travel and cargo travel. The more that I learn about the military side of things, military aviation, the more disgusted I become. The more I can't believe that in all the discussions about, for instance, Burlington being such a green place and working on -working towards net zero energy and blah blah blah that, you know, the Pentagon is the largest single source of carbon pollution in the world, and if nothing else, we should be focused on that as a city. We have direct control over the local contingent, the local manifestation of that, and the fact that has been up until now pretty much overlooked I think is a disgrace. So I'll leave it at that.

MS. BRYANT CARTER: The public comment period is now closed. It's 7 p.m. on October 24, 2019. I'm Diane Bryant Carter. Thank you for attending this public hearing for the 14 CFR Part 150 Noise Compatibility Program Update for the Burlington

(Adjourned at 7 p.m.)

#### <u>CERTIFICATE</u>

I, JoAnn Q. Carson, do hereby certify that I recorded by stenographic means the public hearing re:

Navigating Options at the Burlington International

Airport, Burlington, Vermont, on October 24, 2019,

beginning at 5 p.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting, and the foregoing 10 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings, to the best of my ability.

I further certify that I am not related to any of the parties thereto or their Counsel, and I am in no way interested in the outcome of said cause.

Dated at Burlington, Vermont, this 25th day of October, 2019.

Joann Q. Carsor

JoAnn Q. Carson

Registered Merit Reporter

Certified Real Time Reporter

**Public Hearing Presentation** 





## **WELCOME**

to the

# NOISE COMPATIBILITY PROGRAM UPDATE PUBLIC HEARING

**OCTOBER 24, 2019** 



## **COMMENTS**

Please leave your comments on the sheets provided.



## **ORAL COMMENTS**

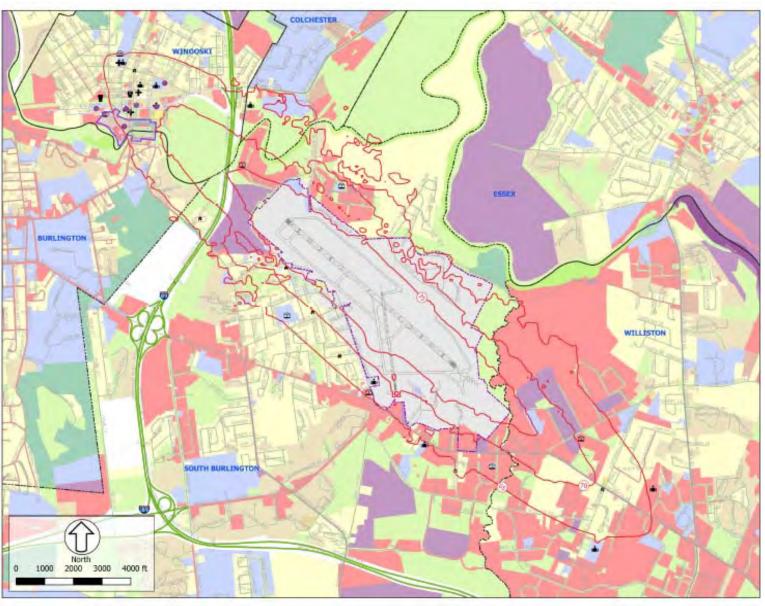
Please feel free to provide oral comments.

There is a 2 minute time limit.



## **2023 Noise Exposure Map**







## **ESTIMATED 2023 POPULATION AND DWELLING UNITS**

Day-Night Average Sound Level (DNL)	Estimated Dwelling Units and Population	Single Family Parcels	Multi- Family & Mixed Use Parcels	Estimated Total
65 -70 dB Contour	Dwelling Units	781	1,563	2,344
	Population	1,812	3,626	5,438
70-75 dB Contour	Dwelling Units	97	186	283
	Population	225	432	657
75 dB+ Contour	Dwelling Units	12	1	13
	Population	28	2	30
Total	Dwelling Units	890	1,750	2,640
	Population	2,065	4,060	6,125



### **NOISE COMPATIBILITY PROGRAM GOALS & OPTIONS**

#### **Project Focus and Goals:**

- Goal is to find ways to transition from land acquisition to other land use measures
- Focus is on updating land use measures
- Recommendations will be based on the 2023 noise contour
- Study will incorporate community feedback

- Mitigation options must:
  - Meet eligibility requirements for federal funding under FAA guidelines
  - Provide a benefit to the local residents; especially those that are in non-compatible areas identified on the FAA accepted NEM
- Mitigation measures will be evaluated using factors such as:
  - Technical feasibility
  - Impacts to residents
  - Cost
  - Schedule



### **RECOMMENDED MONITORING & REVIEW ELEMENTS**

### **Monitoring & Review of NEM & NCP**

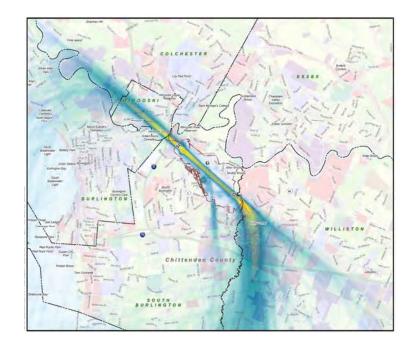
Recommendation: The City recommends the NEM and NCP documents are updated when necessitated by operational changes. The Airport is committed with the Vermont Air National Guard to a joint NEM update one year after the operation of the F35 aircraft. This update is anticipated to be funded in FFY2021.

• .



### **Noise and Flight Track Monitoring**

Recommendation: The City recommends the purchase of a flight tracking system.





### **VOLUNTARY LAND ACQUISITION AND RELOCATION**

Recommendation: The City recommends land acquisition and relocation for non-compatible residential land use within the 75 dB DNL noise contour where the majority of the parcel is located within the contour. It is no longer recommending acquisition for land below 75 dB DNL.

- Relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the "Uniform Act") and implementation of Department of Transportation (DOT) regulations. benefits for the occupants
- Demolition of structure
- Land reuse study for compatible use of land
- Est. Avg. Cost Per Home: \$407,000



# VOLUNTARY SOUND INSULATION OF RESIDENCES AND NOISE SENSITVE BUILDINGS

Recommendation: The City is recommending sound insulation for residential and noise sensitive land within the 65 up to the 75 dB DNL noise contour. It is recommending sound insulation for residential land located in the 75 dB DNL where the majority of the parcel is not located within the 75 dB DNL contour. The City will not require an avigation easement. No avigation easement will be required.

#### **RESIDENTIAL BUILDINGS**

- Installation of acoustical treatments including windows and doors
- Reduce interior noise level to 45 dB DNL
- Must meet eligibility criteria including existing interior noise level above 45 dB DNL to qualify
- Owner remains in home during process
- Est. Avg. Cost per Home: \$54,000

#### **NOISE SENSITIVE BUILDINGS**

- Eligible community buildings include schools, places of worship and other noise sensitive buildings
- Est. Avg. Cost: Varies by Building



### **VOLUNTARY SALES ASSISTANCE**

Recommendation: The City is recommending a sales assistance program for non-compatible land use within the 65 and up to the 75 dB DNL noise contour where properties are not eligible for sound insulation. Per FAA requirements an avigation easement will be required.

- Airport assists with the sale of the home on the open market; airport does NOT take possession of property
- Homeowner enters program by signing agreement which includes:
- Homeowner to list property at Fair Market Value (FMV)
- Homeowner to convey Avigation Easement prior to sale of home
- Airport guarantees they will provide a differential to assist in the sale of the property if seller receives an offer of less than FMV
- Owner / Occupant does not receive relocation benefits
- Est. Avg. Cost per Home: \$35,520



#### **VOLUNTARY PURCHASE ASSURANCE**

Recommendation: The City is recommending a purchase assurance for non-compatible land use within the 65 and up to the 75 dB DNL noise contour. Per FAA requirements an avigation easement will be required.

Airport purchases property from owner, sound insulates and resells on the open market

- Homeowner agrees to sell property at appraised Fair Market Value (FMV)
- Homeowner to convey Avigation Easement prior to sale of home
- Owner / Occupant does not receive relocation benefits
- Airport maintains and preserves property during the sound insulation process
- Est. Avg. Cost Per Home: \$355,000

Response to Public Comments



#### PUBLIC COMMENTS RELATED TO ECONOMIC EFFECTS

First Name	Last Name	Document Number	Comment ID	Paraphrased Comment	Response
Daniel	Albert	1	DA-1B	Our property values are being depleted without just compensation.	Economic impacts were not evaluated as part of this study.
Terrill	Bouricius	9	TB-1B	The noise disturbs health testing and work conditions. We will need to move operations to another town which will put substantial financial burden on my company.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Jennifer	Decker	19	JD-1B	Will the City of Burlington demand full noise remediation prior to F-35's being allowed to continue to operate at Burlington International Airport? If not, what is the plan to compensate victims during the years, or even decades, prior to full remediation? Where can victims of damaging noise go for benefits? What will be the cost of compensating victims?	F-35 operations will occur prior to full remediation, If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed. Eligibility and participation requirements will be available to homeowners after the establishment of a program. Program representatives will contact all potentially eligible homeowners.
Patricia	Everts	20	PE-1B	I am also concerned about my property value going down because of the F-35s.	Economic impacts were not evaluated as part of this study.
Jean	Hopkins	31	ЈНО-1С	Money for F-35s could have gone to building homes instead of weapons.	Thank you for your comment.
Annie	Jordan	36	AJ-1A	Low income citizens will be the ones most negatively impacted by these jets.	Economic impacts were not evaluated as part of this study.
Melinda	Lee	49	ML-1B	I am also concerned about the effect on property values and quality of life. I already know one couple who moved due to the F-35s and their noise & nuclear capability.	Economic impacts were not evaluated as part of this study.

### PUBLIC COMMENTS RELATED TO ECONOMIC EFFECTS

First Name	Last Name	Document Number	Comment ID	Paraphrased Comment	Response
N/A	N/A	82	CC-4B	These plans continue to prey on the poor.	Economic impacts were not evaluated as part of this study.

#### PUBLIC COMMENTS RELATED TO F-35A OPERATIONS

First Name	Last Name	Appendix Documen t Number	Comment ID	Paraphrased Comment	Response
Zack	Flaherty	22	ZF-1	Do municipalities have to pay 10% to match grants?	The Airport, owned by the City of Burlington is required to provide 10% of each FAA's Airport Improvement Program grant. Other municipalities are not required to provide funding.
Robin	Lloyd	51	RL-1	To resolve the question about the impact of F35 noise upon takeoff and landing, I request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.	The use of an operations and flight tracking system is included as a recommended measure of the NCP. Additionally, the Airport has committed with the Vermont National Guard to conduct a joint NEM update one year after the operation of the F-35 (estimated 2021).
Tony	Redington	65	TR-1	I strongly request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.	The use of an operations and flight tracking system is included as a recommended measure of the NCP. Additionally, the Airport has committed with the Vermont National Guard to conduct a joint NEM update one year after the operation of the F-35 (estimated 2021).

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Daniel	Albert	1	DA-1C	As borne out by peer-reviewed research, the noise level of the F-35s is dangerous to children's hearing and brain development.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Daniel	Albert	1	DA-1D	An F-35 accident is too abhorrent to contemplate, yet it must be in the interest of the health & safety in our community. Please count me and my wife as strongly opposed to the F-35 basing in Burlington.	Health and safety effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health and safety effects.
Jennifer	Decker	19	JD-1D	How can parents and guardians of children in local daycares, schools and homes be taught to look for signs of hearing loss and other developmental impacts in children who are preverbal? What are the results of pre-testing for vulnerable populations on these health measures: stress-related disease, hearing, learning, development, and mental health measures. Which valid measures have been used for pre-testing scores? Where the results of those studies that will help determine levels of harm among residents?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Patricia	Everts	20	PE-1A	I am concerned about health issues from the F-35s.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Mary	Fillmore	21	MF-1C	How can we expect to keep windows closed year round? How will we protect students, adults, and airport visitors & employees from the F-35s when outdoors?	There is currently no mitigation measures planned which would affect outdoor noise levels.
Ann	Goering	26	AG-1A	Noise is not a nuisance. It is a health issue. As a family physician working and living in the fight path I am aware of the impact on my health as well as others. I was on my porch when the F-35s flew over and my ears rang & hurt for two hours.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Anya	Hunter	32	AH-1	The experience of the plane was terrifying. How will this impact children, teens, the elderly, refugees, veterans, anyone with anxiety or depression?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Genevieve	Jacobs	33	GJ-1	I've lived in Burlington the past 30 years and moving away is not an option I would willingly consider. However, I have a heart condition triggered by stressors, and the F-35s may compromise my ability to live and work. I urge you to reconsider the negative impacts of basing these planes here.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Annie	Jordan	36	AJ-1B	I am apprehensive that exposure to F-35 low frequency high decibel noise is life threatening hazard for many people with various health concerns in the area. I urge you to take immediate preventative action.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
James	Leas	42	JL-2A	How will the modification of the NCP protect children playing outside, residents gardening or walking dogs, or residents who are inside when there is hot weather & their windows are open? If these people cannot be protected, should the airport apply for a FAA grant to purchase all 2,600 homes that will be damaged by the F35s?	There is currently no mitigation measures planned which would affect outdoor noise levels.
James	Leas	45	JL-5	The NCP failed to mention learning impairment of children. What is the City of Burlington & BTV's response to the World Health Organization's report "Burden of disease from environmental noise"? Will the NCP be modified to add/address these considerations?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
James	Leas	46	JL-6	The NCP failed to mention learning impairment of children. What is the City of Burlington & BTV's response to the United State Air Forces' F-35 Environmental Impact Statement? Will the NCP be modified to add/address these considerations?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
James	Leas	47	JL-7	The 2019 draft NCP does not mention hearing loss. What measures will the City take to prevent hearing loss? Will the City continue to put forth an NCP that omits mention of the hearing loss problem and simply allow the hearing of Vermont children and adults to be injured?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
James	Leas	48	JL-8	In view of the Veterans Administration's facts on hearing loss, what will the City of Burlington do to protect airport passengers and nearby residents from the hearing loss they can get from the repeated exposure to F-35 jet noise?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Melinda	Lee	49	ML-1A	The F-35s are very disturbing. It is difficult to hear; I am wondering if I will have to purchase soundproofing ear phones in order to walk safely. I am concerned about the effect on children's hearing; I fear for the health of the children who go to Chamberlin School.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Joanna	Rankin	63	JR-2D	Exposure to intense sound energy is dangerous to health and civil society. Any number of references attests to this. The theoretical noise models behind the NEMs are flawed and inadequate. A single exposure to F-35 can cause permanent damage.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
Wiley	Reading	64	WR-1A	The planes are incredibly loud. I have hearing loss and am concerned that they will make it worse.	Thank you for your comment.
Nancy	Rice	67	NR-1B	What are the noise effects on the children at Chamberlin School, the people of Winooski and S. Burlington, as well as passengers at the airport? Especially once all the F-35s are based there?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.
N/A	N/A	82	CC-4A	The noise is poisoning children. We cannot measure the exposure or reverse it. Think of lead exposure. With sound mitigation our children will need to be locked inside - the antithesis to a healthy childhood.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Judy	Galloway	Transcript	TR-1	I am concerned about children and hearing loss. How can I protect my hearing and that of my children and family?	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/799815-f-35-final-eis-volume-1.html) for available information on health effects.

#### PUBLIC COMMENTS RELATED TO LAND USE

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Jennifer	Decker	19	JD-1A	Does the City of Burlington think that the Federal Aviation Administration is wrong in stating that homes in the noise impact zone are now unfit for human habitation? If so, please share sources. If not, please detail the plan for demolishing homes, schools and businesses and helping those relocate to similar, suitable habitations. What is the timeline for such plans?	The FAA has determined residences, schools, churches, auditoriums; concert halls, hospitals, and nursing homes located within the 65 dB DNL and 70 dB DNL are considered compatible with adequate interior-to-exterior noise-level reduction (NLR). Accordingly, these structures that do not have the adequate NLR are eligible for sound insulation. Businesses are considered compatible and are not eligible for noise mitigation measures. The schedule for the implementation of recommended measures within the 65 dB DNL contour has not been established to date.
Janet	Kahn	37	JK-1B	How was it concluded that homes are sufficiently soundproofed when it only works if people never open their windows or go outside? How is this still considered affordable housing when we must assume reasonable people would not buy a home that renders their children captive? Can you show us real estate assessments based on experience rather than computer modeling that show home value being comparable to pre-noise endangerment levels?	Economic impacts were not evaluated as part of this study.

# PUBLIC COMMENTS RELATED TO LAND USE

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
James	Leas	42	JL-2B	What is the danger to the public and the cost of each of the following alternatives to the proposed NCP modification: 1. Building a new runway away from where people live 2. Using an existing runway in a less populated area 3. Canceling the basing of the F-35s in Burlington	The purpose of this update was to assess noise mitigation measures in addition to land acquisition. This study was not intended to re-assess the basing of the F-35A at the airport.
Judy	Galloway	Transcript	TR-6	News reports suggest the value of our homes will fall 17%. Isn't this unconstitutional take of property by the government without compensation? If property values fall doesn't that mean the property assessments and tax revenues will fall? Will the Air Force make those cities whole?	Economic impacts were not evaluated as part of this study.

# PUBLIC COMMENTS RELATED TO PUBLIC HEARING

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
N/A	N/A	79	CC-1	Thank you for this info session. Thanks for not tearing down anymore homes.	Thank you for your comment.
N/A	N/A	83	CC-6	Too bad that none of the airport officials came to the part of the meeting that actually had questions for you. Not a democratic meeting at all.	Airport officials were present at the Public Hearing.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Ron	Bomer	8	RB-1	The new jets have a completely different sound profile with multiple frequencies with a physical rumbling sound wave. Their pathways should be pushed out further. A published training schedule would help us be prepared.	Thank you for your comment. The approach and departure pathways flown by the F-35 are the same as those flown by the F-16 aircraft. The VTANG typically operates on a regular predictable schedule consisting of
Kristie	Carr	10	KC-1	I live in Colchester on Renkin Dr. I don't see that area as being in the noise map. However, I am in the direct flight path of the airport and the jets and planes fly directly over my house. Why is that area not on the map?	The FAA does not provide funds for noise mitigation outside the 65 dB DNL contour. The NEM only shows the 65 DNL contour and those areas directly adjacent to it.
Mary	Fillmore	21	MF-1A	The entire process is flawed because it is focused on average noise levels rather than intensive incidents, such as the F-35 takeoffs and landings. How will the airport reduce noise averages without restricting the commercial flights which have made the airport to be so successful?	The Day-Night Average Sound Level (DNL) metric is used for the BTV NEM per Part 150 regulations. Maximum sound levels have not been determined as part of this study. There are no plans to address noise through a reduction in commercial flight operations.
Ann	Goering	26	AG-1B	We need studies that show the true impact of noise. Actual decibels, not averaged decibels. I am asking for the current plan to be considered flawed and not accepted.	The Day-Night Average Sound Level (DNL) metric is used for the BTV NEM per Part 150 regulations. Maximum sound levels have not been determined as part of this study.
Lois	Price	60	LP-1	Using a day/night average to measure F-35 sound levels is misleading. The sound level when the planes are operating is what should be measured, as this is what can cause damage to people's hearing.	The Day-Night Average Sound Level (DNL) metric is used for the BTV NEM per Part 150 regulations. Maximum sound levels have not been determined as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/79981 5-f-35-final-eis-volume-1.html) for available information on health effects.
Stefani	Us	75	SU-2	Block 3F software	Thank you for your comment.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Gregory	Epler Wood	76	GW-1	Part 150 of the Federal Aviation Regulations uses outdated, outmoded and harmful metrics. Another analysis should be done that takes into account low frequency & infrasound, how sounds are perceived by humans of all ages, and what effects those sounds have.	Thank you for your comment.
Terry	Zigmund	78	TZ-1A	I do not believe that the airport has done a thorough study to determine the impacts of the F-35 on the neighboring communities. The document clearly states that the study is based on noise from the F-16. While I understand that computer models were used, I do not feel that this is sufficient.	This is incorrect. The NEM study utilizes distinct F-16 and F-35A noise data for modeling operation from each of those aircraft types.

# PUBLIC COMMENTS RELATED TO NEM DOCUMENTATION

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
James	Leas	43	JL-3	The NCP fails to recount reasons that individual measures were accepted and rejected, such as noise monitoring, flight track monitoring, and real estate disclosure. Please revise the 2019 NCP to provide the missing information and explanations in full.	The purpose of this update was to assess noise mitigation measures in addition to land acquisition. This study was not intended to re-assess the basing of the F-35A at the airport.
James	Leas	44	JL-4	The 2019 draft NCP is fundamentally flawed and should be rejected by the FAA.	Thank you for your comment.
Karl	Novak	58	KN-1B	The 2019 Draft NCP does not address the daily airport passengers. The NCP should address F-35 noise on the airport grounds.	Flight operations data is included in the 2015 and 2020 Noise Exposure Maps report. A copy can be viewed at https://www.btv.aero/documents/BTV_FINAL_NE M Report 20151221 web.pdf
Karl	Novak	58	KN-1C	The NCP should include a request for a more compatible location for the F-35s.	Thank you for your comment.
Joanna	Rankin	63	JR-2B	The draft NCP is shocking in its discussion of at-most partially effective and painfully late-coming measures. The programs would only be band aids. Residences can be insulated, but this does nothing for being outside. What of children, BTV passengers, bicycle traffic?	There is currently no mitigation measures planned which would affect outdoor noise levels.
Joanna	Rankin	63	JR-2E	I strongly object to the current deadline for submitting comments on the current NCP. We know the F-35s are terrible but we have not yet experienced how terrible. Only a small part of the fleet has arrived, and they have not used afterburners.	Thank you for your comment.

# PUBLIC COMMENTS RELATED TO GENERAL NOISE ISSUES

First Name	Last Name	Appendix Document Number	Com ment ID	Paraphrased Comment	Response
Terrill	Bouricius	9	TB- 1A	Average day and night levels mask the true problem. The issue is peak noise, which will obviously impact people far beyond the 65 decibel area on the map.	The Day-Night Average Sound Level (DNL) metric is used for the BTV NEM as per Part 150 regulations. US Congress provided legislation to FAA that all airports need to be represented in the same way to access funding.
Jim	Carrier	11	JC-1	I would like to ask all planes, but especially the F35s, to follow the IFR takeoff and landing flight path, straight in, and out, which is roughly over the Winooski River. Even in VFR conditions. This would vastly reduce the noise, and complaints.	Thank you for your comment.
Maureen	Labenski	39	ML-1	I live in downtown Burlington and have not experienced any untoward affects from the new jets. When I'm inside my house I hear them, but the sound is not objectionable. When I'm walking on the waterfront or the downtown shopping area the noise from the jets is loud, but not problematic. It is of short duration and I recognize the sound as part of what comes with maintaining a capable protective force.	Thank you for your comment.
Andrea	Nicoletta	57	AN-1	The F-35s are much louder than the F-16s. The walls shook and the sound penetrated my home even with all windows and doors closed. These machines should not be in populated areas.	Thank you for your comment.
Daniel	Shearer	70	DS-1	You cannot ignore the F-35 noise. It is unnerving and unsettling and I want it to stop.	Thank you for your comment.
N/A	N/A	84	E-1	I think the F-35 noise is non-existent and the people that are whining about it are anti-military.	Thank you for your comment.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Daniel	Albert	1	DA-1A	We are outside the noise contour but the F-35 noise directly compromises our quiet enjoyment of our property.	The FAA does not provide funds for noise mitigation outside the 65 dB DNL contour.
Callie	Chambers	14	ССН-1	None of the programs address the effect of planes on outdoor life. How about a subsidy for noise cancelling headphones?	The distribution of noise cancelling headphones is not an FAA approved noise mitigation measure.
Tina	Daly	18	TD-1	Who would you contact for information regarding property buyout?	If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed which will include homeowner outreach. Program representatives will contact all potentially eligible homeowners.
Mary	Fillmore	21	MF-1D	Purchasing, refurbishing, and selling homes in the 65-75 DNL range is calculated to create an underclass in our community. No one pretends that "soundproofing" will be effective. The NCP will offer too little too late.	Economic impacts were not evaluated as part of this study.
Roger	Forcier	23	RF-1	I am writing on behalf of my mother-in-law whose home is in the 70 DNL area. Would BTV be interested in purchasing her home when funding becomes available? If not, what options are open to her?	If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed. Eligibility and participation requirements will be available to homeowners after the establishment of a program. Program representatives will contact all potentially eligible homeowners.
Robert	Herendeen	29	RH-1B	It is unfair to offer sound-proofing instead of mitigating or removing the F-35s. The program is expensive and forces people indoors.	Thank you for your comment.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Semir	Mahmutovic	54	SM-1	I live at 504 Brownell Rd Williston. The F-35s go over my house and scare my daughter; it wasn't like this with the old planes. How do we get the house sound proofed?	If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed. Eligibility and participation requirements will be available to homeowners after the establishment of a program. Program representatives will contact all potentially eligible homeowners.
Cara	Montague	56	CMO-1A	I have great concern that the Noise Mitigation Program will not provide adequate protection to children, grown-ups or animals that live in the 65 dB zone and higher. The time frame for grant applications and awards leaves many hundreds of people vulnerable for years while they are waiting for work to be done.	Thank you for your comment.
Sheila	Quenneville	61	SQ-1	Concerned about noise impact on children. How to mitigate noise while outdoors?	There is currently no mitigation measures planned which would affect outdoor noise levels.
Peter	Schubart	69	PS-1A	The noise mitigation plan in place is totally insufficient with regard to the military jet noise. The noise will affect civilians by next year but the grant-based process will take many years to be fully-implemented.	Thank you for your comment.
Ian	Stokes	71	IS-1	I urge the City of Burlington and The Jones Payne Group to examine all aspects of noise compatibility at BTV, including the implications and impact of noise levels on people walking or traveling on bikes on roads near the runway.	This study evaluated the noise impact on residential properties and special use facilities (e.g. schools) surrounding the airport.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Joan	Swan	73	JS-2	Where do I find the eligibility requirements for the Sound Insulation program?	If the sound insulation measure is approved, funded and implemented, a program will be developed. Eligibility and participation requirements will be provided to homeowners after the establishment of a program. Program representatives will contact all potentially eligible homeowners.
Judith	Yarnall	77	JY-1B	I am also concerned with failure to implement stated; desired changes to better sound insulate homes.	Thank you for your comment.
Terry	Zigmund	78	TZ-1B	My home is excluded from the sound mitigation program based on its location but I will still be subjected to the noise from the military jets.  Additionally, sound proofing my home does nothing to help me when I am outside.	The FAA does not provide funds for noise mitigation outside the 65 dB DNL contour. Sound insulation is only effective at mitigating aircraft noise when indoors.
N/A	N/A	80	CC-2	I'd like more information pertaining to timeline of selling my home & information on how the FMV is assessed & if the airport will work with realtors.	If a recommended measure, such as sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed. Information on eligibility requirements and the participation process will be provided to homeowners after the establishment of a program. Program representatives will contact all potentially eligible homeowners.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
N/A	N/A	81	CC-3	Please provide a sign-up for information/news to be sent via email. Include status updates, how to sign-up for sound mitigation, etc.	If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed which will include homeowner outreach. Program representatives will contact all potentially eligible homeowners.
Judy	Galloway	Transcript	TR-2	Please provide a description of the noise mitigation plan. When will it begin? How will the programs work? How long will it take to complete? Can I sell my home? How do the grants work? Who will provide sales assistance and purchase assistance. Will I get the estimated property value of my home?	Upon approval of the NCP by the FAA, the City will apply for grant funds to begin noise mitigation program. The City will be developing a noise mitigation plan that outline the program's schedule, funding and priorities. This plan is estimated to be completed in the next 6 months. If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed which will include homeowner outreach. Program representatives will contact all potentially eligible homeowners.
Bruce	Bevins	Transcript	TR-7	I hope the FAA and the Air Force will do right by all the neighbors around the airport. I think the cart got before the horse on this one since it will be many years of mitigation with the F-35's here.	Thank you for your comment.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
John	Ames	3	JA-1	I understand that the FAA granted funds to Logan and Bradley Airports for noise monitoring, and that the 2008 NCP included such a recommendation but the airport did not apply for a grant. I strongly request that the airport immediately apply for FAA noise monitoring & tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the NCP.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Eileen	Andreoli	4	EA-1B	We know that the FAA will provide grants for permanent noise monitoring systems. What is the Airport's responsibility to provide these systems? How can the Airport repeatedly qualify for FAA funds when it does not fulfill the recommendations approved by the FAA to provide clear information to prospective homebuyers about the noise impact zones?	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Doris	Bedinger	7	DB-2B	What aren't we learning from not having noise monitoring at BTV?	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Jennifer	Decker	19	JD-1C	Has the City of Burlington been negligent in not following Health Department recommendations around noise monitoring? Who is responsible for the negligence? When will sound monitoring be implemented? How can residents at various locations be assured of the accuracy of sound monitoring?	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Kai	Mikkel Forlie	24	KF-1	I urge you and your staff to immediately apply for FAA noise monitoring and tracking grants in order to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Kai	Mikkel Forlie	25	KF-2	The 2019 NCP does not do enough to protect residents. Low-income neighborhoods are threatened with unsafe noise levels and declining property values. The possible hearing loss needs to be analyzed.	Health, economic and safety effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/79 9815-f-35-final-eis-volume-1.html) for available information on health, economic and safety effects.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
James	Leas	41	JL-1	Why did the Airport not apply for an FAA grant when it was recommended in the 2008 NCP? Will the airport director commit to applying for the available FAA grant for monitoring and tracking the F-35 noise?	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Cara	Montague	56	CMO-1C	I would also like there to be continued on-site monitoring of the sound levels of the planes, especially at the Chamberlin School in South Burlington and the Winooski School in Winooski.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Karl	Novak	58	KN-1A	2019 Draft NCP omits the Technical Advisory Committee's recommendation to purchase a noise monitoring system.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Joanna	Rankin	62	JR-1	I demand that the City of Burlington take immediate steps to install a noise monitoring system, and that this installation not wait for FAA funding.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Joanna	Rankin	63	JR-2C	Noise monitoring is the only means by which we can know the full health effects of the F-35. It is relatively cheap and was recommended both in earlier draft NCPs and the 2012 VT Dept of Health Study. No action has been taken despite potential FAA grants.	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.
Marguerite	Adelman	Transcript	TR-8	I would like the airport to request some noise monitoring as soon as possible	Part 150 is a voluntary program. Implementation is based upon the availability of the Airport staff to oversee projects as well as having the ability to provide the 10% project cost needed to secure an FAA Airport Improvement Program grant. Given the limited resources of the Airport, not all projects could be funded. The current recommendation is to purchase an integrated flight track and noise monitoring system which will provide constant noise and flight tracking data that is correlated to each other. It should be noted that radar data for military aircraft is not publicly releasable. As such, any publicly accessible flight tracking system would omit flight path data for most military aircraft operations.

# PUBLIC COMMENTS RELATED TO OTHER TOPICS

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Eileen	Andreoli	4	EA-1A	The Airport has refused to develop a real estate noise disclosure form. It is a conflict of interest for the Airport and Airport Director not to warn people prior to purchasing homes. What liabilities does the Airport have in this matter, and what is the process to hold the Airport accountable for decades of fraudulent home purchases?	The Northwest Vermont Board of Realtors encourages its realtors to execute an Airport Noise Disclosure for the Burlington, Vermont International Airport for sales near Burlington International Airport.
Doris	Bedinger	7	DB-2A	Public comments are happening during cold weather, with only 2 planes at the airport, before people have had first hand experience of the afterburner. This is suspicious & negligent.	The Airport has committed with the Vermont National Guard to conduct a joint NEM update one year after the operation of the F-35 (estimated 2021).
Mary	Fillmore	21	MF-1B	The current NCP has only accomplished one of its 15 goals - how can citizens be confident this plan will have better results?	The Airport has conducted the Part 150 Update as part of its commitment to address noise impacts on the surrounding community. While the Airport's previous mitigation measures focused primarily on land acquisition due to limited funding, the Airport is committed to implement additional recommended measures such as sound insulation. All projects will be dependent upon availability of FAA grant funding and the Airport's 10% contribution.
Jane	Hendley	28	JH-1C	There is not enough oversight of the military because of the money involved.	Thank you for your comment.
Peter	Schubart	69	PS-1C	The City of Burlington is violating the rights of the its citizens by supporting the F-35s.	Thank you for your comment.
Mr.	Forlie	Transcript	TR-9	I think our elected officials should represent all of us. I am concerned about the level of noise when all the F-35s are here.	Thank you for your comment.

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Joan	Swan	72	JS-1	I own property inside the 2023 70 db DNL zone. Please send me notifications of all future public meetings & presentations. And information on how to submit application to the various voluntary programs, ie, Sound Insulation.	If a recommended measure, such as land acquisition, sound insulation, sales assistance or purchase assurance is approved and implemented, a program will be developed which will include homeowner outreach. Program representatives will contact all potentially eligible homeowners.
Judy	Galloway	Transcript	TR-5	When wil the memorandums of understanding with the various cities be done? Where and when can I see these MOUs?	The City of Burlington is working with City of South Burlington and the City of Winooski to develop a memorandum of understanding.

# PUBLIC COMMENTS RELATED TONOISE MITIGATION FOR SCHOOLS

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Nancy	Hellen	27	NH-1A	Children who are deregulated by loud noise are definitely affected and take time to get back to a baseline. The learning of all children needs to be at the forefront of the F-35 debate, with focus on noise intrusion and long term consequences.	Health effects were not evaluated as part of this study. Please refer to the USAF F-35A Operational Basing EIS (https://www.documentcloud.org/documents/79 9815-f-35-final-eis-volume-1.html) for available information on health effects.
Nancy	Hellen	27	NH-1B	The communities most impacted are mostly marginalized communities. The government, including our legislators, is overlooking the inequities of basing the f-35s in Burlington. Vermont needs to support a healthy environment for all families and schools.	Economic impacts were not evaluated as part of this study.
Judy	Galloway	Transcript	TR-3	Will my taxes go up if my schools need more soundproofing?	The City is working with the local towns to determine who will provide the grant matching funds for the sound insulation of schools.

# PUBLIC COMMENTS RELATED TO GRANT FUNDING

First Name	Last Name	Appendix Document Number	Comment ID	Paraphrased Comment	Response
Zack	Flaherty	22	ZF-1	Do municipalities have to pay 10% to match grants?	The Airport, owned by the City of Burlington is required to provide 10% of each FAA's Airport Improvement Program grant. Other municipalities are not required to provide funding.
Robin	Lloyd	51	RL-1	To resolve the question about the impact of F35 noise upon takeoff and landing, I request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.	The use of an operations and flight tracking system is included as a recommended measure of the NCP. Additionally, the Airport has committed with the Vermont National Guard to conduct a joint NEM update one year after the operation of the F-35 (estimated 2021).
Tony	Redington	65	TR-1	I strongly request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.	The use of an operations and flight tracking system is included as a recommended measure of the NCP. Additionally, the Airport has committed with the Vermont National Guard to conduct a joint NEM update one year after the operation of the F-35 (estimated 2021).
Judy	Galloway	Transcript	TR-4	Does Burlington need to apply for a grant every year? Is the funding dependent upon Congress?	Yes, the Airport applies for grants on an annual basis. Fund is contingent upon Congress authorizing the Department of Transportation budget.

# APPENDIX E PUBLIC COMMENTS



#### F-35 Basing at BTV is deceptive, flawed, intolerable and dangerous

Daniel Albert < legionshome@gmail.com>

Nov 24, 2019 9:30 PM

Posted in group: BTVsound

- 1. I live just outside the target noise zone identified by the project's map. So, according to the map and the mitigation formula being proposed -- shoved down our throats -- we are not entitled to sound insulation, sale support, or any other form of relief. Yet when the F-35s fly, our conversations must stop because we can't hear each other above the incredibly intrusive noise. And that is with our windows closed and locked. We don't want to move but our quiet enjoyment of our premises is being directly compromised.
- 2. Our property values are being depleted, a taking without just compensation. We don't want to be displaced but our quiet enjoyment is being directly compromised.
- 3. As borne out by peer-reviewed research, the noise level of the F-35s is dangerous to children's hearing and brain development.
- 4. The definition of an accident is something unplanned, unexpected, that nevertheless occurs. The basing of the F-35s in a metropolitan area, as Burlington is defined under US census standards, amounts to an accident waiting to happen. Witness the fatal aircraft accidents and other fatal accidents involving large complex systems that pepper our recent history. An F-35 accident in the Burlington area is too abhorrent to contemplate, yet it must be contemplated in the interest of the health and safety of our community.

As I'm sure you've gleaned by now: count me as strongly opposed to the basing of the F-35s in Burlington-South Burlington. In fact, as my wife joins me in these sentiments, please count us as two.

Yours sincerely, Daniel Albert Attorney-at-Law Vermont Supreme Court License #115

#### F-35 noise outside of noise contour

DEBORAH ALTEMUS <daltemus1@comcast.net>

2

Nov 22, 2019 3:41 PM

Posted in group: BTVsound

Today 11/22/2019 @ 1:01 pm: F-35 jet noise, the loudest I've heard so far. The roar lasted 1 minute then tailed off. I couldn't tell if 1 or 2 planes took off as the roar was too loud to detect changes.

We're in Williston closer to the Winooski river than to Taft's Corner, and supposedly outside of the worst noise contours. Our house is very well insulated, with hurricane-level windows, and the whole house shook. I worry about folks inside the loudest noise contour. I called the Guard. Of course, no human picked up so I had to leave message.

**Deb Altemus** 

#### **BTV Noise Monitoring**

jhn ms <jhn\_ms@yahoo.com>
Posted in group: BTVsound

3

Nov 1, 2019 3:01 PM

My Public Comment for the record is as follows:

I understand that the FAA granted funds to Logan airport in Boston and Bradley Airport in Connecticut for noise monitoring and tracking. I also am aware that the 2008 Noise Compatibility Program included a recommendation for the Burlington Airport to do noise monitoring and tracking but the airport did not apply for the available FAA grant even though F-16 jets were taking off with afterburners blasting.

I strongly request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.

Please immediately install noise monitor and tracking equipment:

- On airport grounds where passengers, taxi drivers, and airport personnel may be outdoors, especially at several places in the parking garage and outdoors on both sides of the two terminal buildings.
- Outside all the schools and daycare centers in and near the noise danger zone.
- Throughout the Chamberlin School neighborhood of South Burlington.
- · Throughout Winooski.
- Throughout the Chase Street, Grove Street, and Riverside Street neighborhoods of Burlington.
- Throughout the Williston neighborhoods in the flight path.
- On the St. Michael's College campus in Colchester.

Submitted by: John Ames 4 High St., Winooski 802-324-0576

#### NCP comments

mmmvt1@aol.com <mmmvt1@aol.com>



Nov 25, 2019 5:00 PM

Posted in group: BTVsound

To Whom It May Concern:

For over 20 years now, the Burlington International Airport has ignored recommendations to develop a real estate noise disclosure form, and has refused to install permanent noise monitoring systems in the air traffic flight paths.

The current Airport Director is a real estate landlord, as well as the owner of a finance company. The fact that the Airport has refused to warn people when they are purchasing home that their new homes might be located in harmful, dangerous noise zones created by airport traffic is scandalous and possibly fraudulent. The fact that the current airport director is in charge of purchasing and demolishing affordable housing, while running businesses that supply housing and mortgage financing seems like a profound conflict of interest.

We know that the FAA will provide grants for permanent noise monitoring systems. What is the Airport's responsibility to provide these systems? How can the Airport repeatedly qualify for FAA funds when it does not fulfill the recommendations approved by the FAA to provide clear information to prospective homebuyers about the noise impact zones?

What liabilities does the Airport have in this matter, and what is the process to hold the Airport accountable for decades of fraudulent home purchases?

Sincerely,. Eileen Andreoli

#### Fwd: Winooski and the F-35s

Diana Arnell <dianavarnell@gmail.com>

5

Nov 25, 2019 12:35 PM

Posted in group: BTVsound

Attached please find a letter that 39 Winooski residents sent to Senator Sanders that I would like to be included in the public comments.

Thank you,

Diana Arnell 43 Hood Street Winooski, VT 05404

----- Forwarded message ------

From: Diana Arnell < dianavarnell@gmail.com>

Date: Fri, Jun 7, 2019 at 6:02 AM Subject: Winooski and the F-35s

To: Tim Ashe <timashe@burlingtontelecom.net>, <pbaruth@leg.state.vt.us>, <DIngram@leg.state.vt.us>, Virginia Lyons <vlyons@leg.state.vt.us>, <CPearson@leg.state.vt.us>, <msirotkin@leg.state.vt.us>,

<hcolston@leg.state.vt.us>, <dgonzalez@leg.state.vt.us>

Dear Senator Ashe, Senator Baruth, Senator Ingram, Senator Lyons, Senator Pearson, Senator Sirotkin, Representative Colston, and Representative Gonzalez,

Thank you for all of your hard work this legislative session!

Attached please find a letter that Winooski residents sent to Senator Bernie Sanders today. I know that the F-35 program is mostly outside of your jurisdiction, but I am writing to you to ask you to use your political power and connections to press our federal delegation on this important issue. I attended both public meetings last week at the airport and in Winooski regarding the newly recently Noise Exposure Map. I am upset by the lack of answers regarding the potential risks to the health and safety of my community. I am a Winooski homeowner with a three-year-old child, and like half of Winooski, my family will be in the noise zone of more than 65 decibels.

Please take the time to read the attached letter and advocate for your constituents. Please feel free to contact me if you have any questions or would like any additional information.

Thank you!

Diana Arnell 43 Hood Street Winooski, VT 05404 (802) 503-8339

#### Recent noise

Doris Bedinger <bedinger@sbcglobal.net>



Nov 22, 2019 3:05 PM

Posted in group: BTVsound

I was outside the hospital when two jets flew right overhead at 2 pm the other day. "Tuesday? or Wednesday. I thought they were not allowed to fly over the city and having that extremely loud noise right over the hospital where folks are hurting is just wrong

I dread the news that more planes are supposed to come if it's already this loud with just two. And if one out of every 20 flights might be with afterburners ( we heard 5%), how can this be justified? - certainly not to protect jobs. The guard could be employing many more with another mission

The basing is abuse of people whose lives will be forever worse. Doris B

Sent from my iPad

#### Cut off date is criminal

Doris Bedinger <bedinger@sbcglobal.net>

7

Nov 25, 2019 11:14 AM

Posted in group: BTVsound

To cease public comments before anyone in Vermont has heard the F35 in afterburner is nothing short of negligence. To cut off public input when there are only 2 planes at Burlington airport is suspicious. To have the public comment period in the cold weather when people have doors and windows closed is laughable. No wonder we mistrust the "government ". To not have noise monitoring ongoing at BTV makes me wonder what Is being covered up. What aren't we learning?

Responses to noise affecting our lives MUST include first hand experience of the afterburner which we've been told will happen 5% of the time. DCB

Sent from my iPad

#### Jet noise

RB <ron@lostvalleygardens.com>

8

Nov 24, 2019 6:04 PM

Posted in group: BTVsound

The new jets have a completely different sound profile with multiple frequencies with a physical rumbling sound wave. My wife complains of piercing ear pain. Plus, the aircraft do not fly a normal commercial approach over Williston. Their approach pathways should be pushed further out from dense residential areas. It feels like hot dogging and practice strafe-ing of a civilian population. A published training schedule would help us be prepared. The sound is so loud one cannot have a conversation or phone call for over thirty seconds times 2 or 4 approaches. The planes appear to be closer than 300 feet as they take tight banks directly over my home. This approach is closer than the condemned housing that once encroached with Randolph Air Base in San Antonio, TX. I cannot believe these jets are based here given such close set backs.

Ron Bomer

#### noise problems from F-35s

Terrill Bouricius <terrybour@gmail.com>

9

Nov 22, 2019 11:30 AM

Posted in group: BTVsound

Hello,

I was told I could give my experience and concerns about the F-35 noise problem at the airport by sending to this email address.

- 1. The noise evaluation report and maps i saw kept referring to the average day and night noise level. This seems designed to mask the true problem. The issue is not revealed by averaging in the times when the planes are not flying. The issue is the peak noise, which can cause permanent hearing loss and may harm children's cognitive development. This applies both to "regular take offs and also to after burner take offs Nowhere in the report does it discuss this peak noise problem. This obviously will impact people far beyond the 65 decibel area on the map. People at the airport itself (deplaning, or walking to their cars could be seriously harmed. The failure of airport management to take recommended actions to install noise measuring equipment sho2ws negligence. Future medical bills of civilian airline passengers, and the harm to the airline companies themselves from lost boardings and residential harm will likely result in lawsuits against both the airport and managers as individuals who didn't exercise appropriate diligence to protect the health and welfare of the public
- 2. I am a manager at the Pearson VUE testing center on Kimball Ave. near the airport. We administer certification tests for doctors, nurses, engineers and countless other professionals, who require reasonable quiet during their high stakes testing (some tests are ten hours in length). When the F35s first arrived and subsequently the noise has disrupted our testing candidates. We will be required to create a "case" and report each time their is a substantial noise disturbance. When more planes arrive, the noise problem will be unacceptable, and I will have to advise my regional manager that we will need to abandon South Burlington and move our operations to another town. This will put a substantial financial burden on my company.
- 3 It is unacceptable to impose military noise generators on a civilian population that is known to cause harm. It is also against international and military law to co-locate military targets, which these planes are, surrounded by civilians, these planes do not belong here and must be relocated to a more remote military base at the very least.

Terry Bouricius Pearson Professional Center, 30 Kimball Ave., South Burlington, VT 802-864-8382

# BTVsound website contact us "Renkin Dr"

BTVsound Website <cmurphy@jonespayne.com>

10

Oct 24, 2019 8:33 AM

Posted in group: BTVsound

From: Kristie Carr < kristiecarr@gmail.com>

Subject: Renkin Dr

Message Body:

I live in Colchester on Renkin Dr. I don't see that area as being in the noise map. However, I am in the direct flight path of the airport and the jets and planes fly directly over over my house. Why is that area not on the map?

--

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

# F35s need to stay in the IFR flight path

Jim Carrier < jimcarrier@msn.com>

11

Nov 25, 2019 4:39 PM

Posted in group: BTVsound

I live in the New North End. F35s, like many commercial jets, are taking a shortcut when they land and take off on runway 15/33, by curving in from the lake, or, bearing west when taking off, across the New North End. In both instances, they are at a low level. Taking off they jets are particularly loud.

I would like to ask all planes, but especially the F35s, to follow the IFR take off and landing flight path, straight in, and out, which is roughly over the Winooski River. Even in VFR conditions.

This would vastly reduce the noise, and complaints.

Jim Carrier

41 Sky Drive

Burlington

802-497-0347

#### The F35

Shane Carruth <shatan8@msn.com>

12

Nov 22, 2019 11:05 AM

Posted in group: BTVsound

Please work to at least stop the F35 from taking off before the bare minimum of safety measures are in place for people's hearing and health. Please fight to implement the noise monitoring system(s) recommended in VTANG documents. Thanx, Shane Carruth

Get Outlook for iOS

#### F-35 Noise

Deb Chadwick <debzof@hotmail.com>

13

Nov 24, 2019 7:08 PM

Posted in group: BTVsound

I lived at Keen's Crossing in Winooski for several years and put up with the ever increasing number of F-16 planes, the noise and low flying maneuvers, which rattled my windows and shook the apartment complex. Often, I experienced the "hot dog" antics of the F-16 pilots during the day that felt they were coming right into my 6<sup>th</sup> floor apartment and especially when VTANG did their night training. My young grandsons would come to visit me in my apartment and put their hands over their ears when they flew.

I knew I did not want to continue living there when the F-35's were brought/snuck into Vermont by Sen. Leahy, Sanders, Welch (who ironically do not live in or around the affected areas) and Mayor Weinberger, even when it was and has been opposed by over 8,000 families that live in the area. Their big push was that it would save 1,000 VTANG positions and that if the F-35's were not housed in Burlington, the VTANG would close down, which we all found later on, was not the case. Sadly, these elected officials and the developers have turned a deaf ear to these thousands of voices and their legitimate concerns. Consequently, I moved out to North Avenue, thinking I would be safe from the noise and the low flying. Several times since the 2 F-35's have been stationed in Burlington, they have flown over North Avenue and the LOUD noise, the overhead rumbling, etc. was something that made the F-16's seem like a breeze! I am shuddering to think what an additional 18-20 more warplanes, that are slotted to arrive, may be.

Those that have expressed their concern, have been called anti-military. Let me assure you I am not. My father was a proud Marine who was at Iwo Jima. My son also served as a Marine. These F-35's should NEVER have made it to Burlington, an ill equipped airport, surrounded by neighborhoods, schools, churches, families with their noise and environmental hazardous impact. When people once again, expressed their concern as the F-35's have nuclear carrying capabilities, the VTANG "assured" us that they would not be carrying but that nuclear bombs would be housed elsewhere which did not make sense and therefore, another misleading and unbelievable statement issued to the news and the public. I heard that the noise impact precautions with extra insulation, and other noise deafening devices, will not be readily available for many years and also at personal cost. Regardless if this is true or not, this only supports the detrimental deafening noise that we have to guard ourselves and our children against.

I am a third generation Vermonter and love our State. It saddens me that our little state is now home to the huge, military F-35, when other suitable locations were more acceptable. It saddens me that our officials did not listen to the people that voted them into their position and still refuse to address the concerns and issues, instead ignore and avoid.

Thank you for listening and I hope a little bit of what I shared, would be listened to and considered....



# **COMMENT FORM**

Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2<sup>nd</sup> Floor Mezzanine
Burlington International Airport

I / We wish to comment or inquire about the following aspects of this project:

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To submit comments online, please visit www.btvsound.com

Colle Chamber

20 Patrich St

Please note that this comment card and any information provided on it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.

#### F-35 noise in Winooski

josee compton <josee\_compton@yahoo.com>

15

Nov 21, 2019 6:28 PM

Posted in group: BTVsound

My husband and I just moved to one of the Redstone appartements in Winooski close to the river. The F-35 noise levels will make this beautiful area unlivable, sadly. We are in a new insulated townhouse and still have to wear ear protectors inside when they fly over us. I was once walking outside when they flew over and had to go hide in a restaurant because the sound was unbearable. These 20 jets will make living here unlivable and all type of complaints and protest will eventually stop this insanity. There is no way humans will accept to live with this noise. Josee Compton, Winooski

#### **BTV Noise**

david cranmer <dcranmer@hotmail.com>

16

Nov 24, 2019 5:20 PM

Posted in group: BTVsound

Please add me to the list of citizens concerned with noise levels from the new Air Force jets at Burlington. We are in the flight path in Williston and the noise level is noticeably louder than other jets. I'm concerned about the health effects of the sudden roar flying over my home.

Thank you

David Cranmer Williston

# Comments Concerning the Air Force Noise Study and Basing of F-35s at Burlington International Airport

Richard Czaplinski <a href="mailto:rczaplinski@madriver.com">rczaplinski@madriver.com</a> Posted in group: BTVsound 17

Nov 22, 2019 2:50 PM

**Burlington International Airport Commission** 

Burlington International Airport 1200 Airport Drive South Burlington, VT 05403

November 22, 2019

Dear Burlington International Airport Commissioners:

I am a Vietnam Era veteran having served the country for nearly six years in the US Navy. I live in Warren, Vermont. In the decades past I have seen and heard the F-16s flying overhead. Recently, I have seen and heard the two F-35s flying over in formation and heard them at night. It is a different and louder sound and new and different sounds wake me up until I get used to them being "normal."

I fully understand that it is necessary to have the means to defend the county from foreign powers that would do us harm. However, that defense should not result in injury to its citizens when it can be avoided, which I understand is the case at hand with the basing of the F-35s in Burlington. The Air Force says noise at the level of the F-35 can permanently injure the hearing and learning of children exposed to its intense noise.

Given that grave injury can result to the public, especially to children, from the F-35 operations, the Commission should ask the DoD, ANG and others responsible that no F-35 jets be permitted to take off from BTV until all members of the public on airport grounds and in the surrounding densely populated neighborhood are fully protected from the injuries identified by the US Air Force.

The Commission should also ask the DoD, ANG and others responsible to halt any additional F35 aircraft from coming to the Burlington International Airport. The Commission should further request that the F-35s be based at an alternative location where injury to the public can be avoided and that an alternative mission for the ANG in Burlington be found.

It is my understanding the action by the Air Force to base the F-35s is illegal in that that the Air Force has identified no military necessity to base the F-35 jets in a city and has not taken feasible precautions to protect civilians before launching military operations in a city.

Thank you for taking the right action to protect the public.

Richard Czaplinski, President

Will Miller Green Mountain Veterans For Peace, Chapter 57

P.O. Box 76A, 141 Brook Road

Warren, Vermont

802-496-3300

# BTVsound website contact us "land inquired/bought by the airport"

BTVsound Website <cmurphy@jonespayne.com>

18

Nov 12, 2019 1:57 PM

Posted in group: BTVsound

From: Tina Daly <tdaly0116@gmail.com> Subject: land inquired/bought by the airport

#### Message Body:

who would you contact if you/family member has a home very close to the airport to see if the property can/will be purchased if offered for the buyout. Street location is South Henry Court. There is only 7 houses left on Henry Ct.

--

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

### F-35 basing public comments and questions

Jennifer Decker <galloway.jennifer@gmail.com>

19

Nov 22, 2019 9:08 AM

Posted in group: BTVsound

At this week's airport commission meeting, Gene Richards guaranteed that all public comments and questions will receive an official response. I look forward to detailed answers to these questions:

#### Questions:

- 1) Does the City of Burlington think that the Federal Aviation Administration is wrong in stating that homes in the noise impact zone are now unfit for human habitation? If so, please share sources. If not, please detail the plan for demolishing homes, schools and businesses and helping those relocate to similar, suitable habitations. What is the timeline for such plans?
- 2) Will the City of Burlington demand full noise remediation prior to F-35's being allowed to continue to operate at Burlington International Airport? If not, what is the plan to compensate victims during the years, or even decades, prior to full remediation? Where can victims of damaging noise go for benefits? What will be the cost of compensating victims?
- 3) Has the City of Burlington been negligent in not following Health Department recommendations around noise monitoring? Who is responsible for the negligence?
- 4) When will sound monitoring be implemented? How can residents at various locations be assured of the accuracy of sound monitoring?
- 5) How can parents and guardians of children in local daycares, schools and homes be taught to look for signs of hearing loss and other developmental impacts in children who are preverbal?
- 6) What are the results of pre-testing for vulnerable populations on these health measures: stress-related disease, hearing, learning, development, and mental heath measures. Which valid measures have been used for pre-testing scores? Where are the results of those studies that will help determine levels of harm among residents?

Thank you, Jennifer Decker South Burlington

#### F35's

Patricia Everts pateverts@yahoo.com>

20

Nov 25, 2019 10:52 AM

Posted in group: BTVsound

I too want to register my concern about the negative effects of the F35's bring brought to this area.

I have lived in my home in Winooski for the last 46 years, and hope to stay here. I am concerned about not only health issues, but also my property value going down due to the F35's.

Why was it necessary to base those planes here in a very populated area?

There have been many conflicting reports, and I am wondering where the real truth lies?

I hope something can be done to remedy this situation.

Patricia A. Everts a Winooski homeowner

### **Public Comment on Noise Compatibility Program Draft**

Mary Fillmore <mfillmor@together.net>

Posted in group: **BTVsound** 

21

Nov 24, 2019 8:06 PM

To whom it may concern:

These are my comments as a neighbor of the airport who lives almost exactly two miles from the runway, concerning the Draft Noise Compatibility Program at the Burlington, Vermont Airport.

An underlying flaw in the entire process is the focus on average noise levels rather than intensive incidents. The issue with the F-35 is the unimaginable (except to those who have heard and felt it) roar of takeoff, and the associated roar of landing. If the airport is to reduce the average to a level that is supposedly acceptable, will they do it by cutting down the commercial traffic which has caused our airport to be so successful? If not, how else will that goal be accomplished, particularly when we have ten times as many bombers as we do today?

The current Noise Compatibility Program has accomplished only one of its 15 goals fully: the acquisition of property around the airport at "fair market value" along with relocation assistance. Apart from that single accomplishment, one goal is in progress. Seven are listed as "not fully implemented," and six as "not implemented."

Faced with both well documented health effects in both children and adults, and the record of failure to implement the vast majority of the NCP action items, why should citizens have the slightest confidence that the new Plan will have better results than the old one? To whom can the public turn for accountability to whatever goals the NCP sets? Will the Airport again hand pick an item or two and neglect the rest? Now, the stakes are far higher, with thousands of homes in the unacceptable noise zone, not to mention the schools and day cares which will be affected. If the rate of implementation is as low as it has been thus far, the damage which will be done is much more serious. Moreover, this damage will have been done for many months before this Plan is implemented at all – *if* the FAA approves the Plan, *if* the airport applies for funding, and *if* it is granted and administered. At best, this will take many months.

On Page 7, in the notes for Table 1, the Plan notes that special measures need to be taken for school and residential uses when the community determines that they must be allowed in otherwise unacceptable noise zones, and that these measures "normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems." Year round closed windows are unimaginable in Vermont. Even the \$2.5 million the city proposes to spend at the Chamberlin School will not protect the students. Are we really prepared to require school children to stay indoors all day? What about adults? And what about the inevitable exposure when children are arriving and leaving school each day, given that the Air National Guard couldn't possibly publish a schedule because of "national security?"

Once the noise and all the hazards it brings are many times greater than ever before, the best the NCP offers current owners in the 65-75 dB DNL range is purchase or, in the lower range, noise "mitigation." These 2627 units may be purchased and refurbished under the new NCP so that new owners can take on the risks and miseries of noise levels that the FAA defines as "normally unacceptable." I can't imagine anything more calculated to create an underclass in our community – and surely it is no accident that the most diverse community in the state is the most affected. No one pretends that "soundproofing" will be effective in the most affected areas, not even the Air Force. Some residences will be deemed "not eligible" and the owners will be forced to sell up or do whatever they can without assistance. The best that the new NCP will offer is too little, too late, long after the 20 F-35s have been deployed. And of course no assistance is offered to those unlucky enough to be outside the noise map, who will nevertheless put up with the consequences of far greater noise than before. The commitment is to update the NEM only a full year after the "fully operational" invasion of 20 F-35s. This is far, far too late for any realistic idea of the hazards and their impacts. Baseline measurements should have been initiated long before the first F-35s arrived.

It appears that the NCP removes new construction from mitigation requirements, and states that such construction will not be eligible for mitigation funding. Can this possibly be the case? What is to prevent a developer from building structures which it would be dangerous for renters or buyers to inhabit?

Apart from all these concerns, where is the strategy to protect infants, children and adults who are simply arriving at the airport or leaving from it at a moment when the F-35 takes off? What is the additional protection offered to employees, particularly baggage handlers and others who are actually on the airfield?

Regarding the broad issue of health hazards and possible remedies, I wish to append my letter to the Vermont Department of Health Commissioner, Dr. Mark Levine, prepared with Lt. Col. Rosanne Greco of Save Our Skies and Jennifer Decker of People for Peace and Security. Please note that the recommendations of the Vermont Department of Health in its 2012 *Public Health Review* have been 100% ignored. No steps were taken prior to the F-35's arrival to mitigate its noise, no noise monitoring or health data have been collected, and there is no multi-agency committee working toward these ends.

Thank you.

Mary Fillmore

Copy of my November 6, 2019 Letter

Dr. Mark Levine

Commissioner of Health

Department of Health 108 Cherry Street Burlington, VT 05402

Dear Dr. Levine:

We are writing to ask your Department's attention to a public health crisis in Chittenden County and beyond: the deployment of the F-35A despite internal Air Force documents showing that our area is too populated to be suitable for these aircraft. We now have two F-35A bombers, which will swell by a factor of ten to 20 bombers by spring 2020. This means 8 to 12 takeoffs per day blasting ears and bodies with 118 decibels for each takeoff, as well as unknown levels of potentially damaging infrasound (below the audible spectrum). Nor is the bombers' arrival noise and vibration innocuous by any means. While lower than their takeoff levels, the F-35s will still produce noise that will be close to four times louder than the F-16s arrival noise. The Air Force anticipates over 5,400 airfield operations would be conducted per year. The new Noise Exposure Map released in May 2019 is very concerning. According to *Vermont Digger*, "The total number of dwelling units exposed to average noise levels of more than 65 decibels will rise from 819 in 2015 to an estimated 2,640 in 2023, with the total population affected rising from 1,900 in 2015 to 6,125 in 2023." Five federal agencies including the Federal Aviation Administration, consider these levels "unsuitable for residential use."

There have been many new developments since the Department's careful 2012 *Public Health Review of the U.S. Air Force Operational Basing of the F-35A Environmental Impact Basing*. It summarized the health impacts of both chronic and acute exposure to noise (although it did not specifically address the additional issues of vibration), such as hearing loss, mental health and cognitive impacts, cardiovascular and other stress effects. It addressed in the abstract what is now a reality, the impact of crashes of airplanes coated with highly toxic stealth materials. In addition to an F-35 catching fire on the runway while taking off from a Florida base, at least two crashes have taken place (April 2019 in Japan due to pilot vertigo, September 2018 in South Carolina due to a faulty fuel tube). Fortunately neither was in a populated area like ours where the effects would be devastating. It isn't even clear how an F-35 fire could be contained.

We are writing to request that the 2012 *Public Health Review* be updated, that its recommendations be followed and amplified, and that some additional measures be taken to protect the health of Vermonters living near, working at, or passing through or near the airport. In keeping with the Department's commitment to health equity, an examination is needed of why the Vermonters who live in the noise danger zone should be subject to those hazards when others are not – and one cannot help but note that the most racially and ethnically diverse town in the state is located directly in the flight path. In addition, children are particularly vulnerable, as shown in studies such as "A follow-up study of effects of chronic aircraft noise exposure on child stress responses and cognition" before and after the Munich international airport was built (https://academic.oup.com/ije/article/30/4/839/705932).

Among a host of new data points, the airport's recently released (October 2019) *Noise Compatibility Program Update* is the best possible case for Health Department action. Even prior to the F-35A, the "existing program" consisted almost exclusively of buying land and tearing down affordable homes. The vast majority of the items in the "Existing Noise Compatibility Program" are listed as "not fully implemented." In particular, the "voluntary minimization of F-16 multiple aircraft flights" was "not fully implemented" because "Most VTANG flights *require* [emphasis added] between two and four aircraft." (Section 3.1.6)

One item is flatly stated as "not implemented" at all, namely "Voluntary Army Guard Helicopter Training Controls" (item 3.1.7) which recommended that "The National Guard helicopter training operations will be conducted away from the Airport when conditions permit. In terms of long range planning, the Guard should consider consolidating operations at Camp Johnson (2008 ROA Measure 7)." However, the status is "not implemented. The Vermont Army National Guard has continued training operations at BTV."

There is no reason to suppose that the new "Noise Compatibility Program" will be implemented more fully than the last one. In fact, "All programs are recommended to be voluntary" in the new Program. *Moreover, it appears that there has been no actual monitoring of sound levels, nor does it appear that there is a plan to do so.* The Noise Exposure Maps on which everything else depends reflect only forecasts, not actual measurements.

The Airport plans to apply to the FAA for noise mitigation funding, which must be supplemented at 10% by local taxpayers. Even if this funding is granted, it will only be received by individuals after years of exposure. Not all homes are eligible to be insulated, and even then people must flee indoors whenever the F-35A approaches to protect their health and especially that of their children. Nine schools are located on the noise map, and an unknown number of day cares.

The Department's *Public Health Review* recommended three measures:

- 1. "Reduce noise and environmental impacts before the F-35s are deployed.
- 2. "Establish a sound monitoring system for the F-35 to validate the modeled noise levels, confirm the affected populations have been correctly identified, inform mitigation efforts, and ensure that thresholds are not exceeded as stated in the EIS (Volume I, 2-43, p93).
- 3. "Form a committee consisting of, but not limited to military personnel familiar with the literature and the health effects, sound experts, residents in the affected areas, air quality experts, and state and local officials. The goal of the committee would be to identify mitigation techniques to reduce potential environmental exposures. Techniques could include:

- Identify consistent flight time windows so Vermonters are not alarmed, and can take precautions to eliminate (sic) their exposure.
- Sound-proof schools and daycares.
- Minimize the number of flights per year.
- Vary flight paths to minimize the sound levels.

(Please note that there is no such thing as truly "sound proofing" the school which is nearest the runway, and consider the impracticability of herding children inside whenever a plane takes off or lands.)

Clearly, the time for option 1 has passed. We are writing to urge you to pursue your other two recommendations, with some amplification.

For "sound monitoring", your second recommendation, we request:

- 1. Make real-time measurements of the actual F-35 peak noise levels on the airport grounds and at various locations and days, during differing weather and wind conditions within the noise danger zone, and in nearby areas where health effects may still be observed.
- 2. Conduct an ongoing health monitoring program to provide data on children and adults, including hearing, cardiovascular fitness, cognitive development, and other relevant parameters with re-testing done quarterly. Baseline data needs to be collected as soon as possible so there is a basis for comparison. This follows directly on your analysis of the risks on pages 2-3 of the 2012 document.

We suggest that the committee in your third 2012 recommendation be advisory to the Department of Health, informing but not determining a quarterly Department review of Burlington airport noise monitoring data, and the Department's recommendations for further mitigation. The *Noise Compatibility Program Update* says "A standing Sound Committee meets quarterly throughout the year." On the airport's website, the "next meeting" is Wednesday, August 29, 2018 – 5:00 pm.

As the Department charged with protecting public health for all Vermonters, we also ask you to take action to:

- 1. Update the Department's December 2012 *Public Health Review of the U.S. Air Force Operational Basing of the F-35A Environmental Impact Basing*, in light of the new noise maps, and latest research information about the damaging effects of noise and vibration on many aspects of human health.
- 2. Show the Department's commitment to health equity by assessing the disproportionate adverse risk of the F-35 on communities of color and refugees, immigrants, asylum seekers, indigenous people, and low income people, who are underrepresented politically. These risks need to be assessed so action can be taken to protect the community equally and equitably.

- 3. Conduct an immediate public information campaign to warn residents, airport passengers, airport workers, commuters, and dog walkers that the F-35 noise is dangerous to their health. It can cause permanent, irreversible hearing damage, impair the learning of infants and children, and raise their stress hormones. Parents and teachers should be counseled to bring their children inside whenever the F-35A is heard. The facts about noise mitigation what it can and cannot do should be explained in the languages spoken by those in the most dangerous areas, as well as online.
- 4. Provide an annual Department report of Burlington airport noise danger and impacts, based on re-evaluation of the people in the baseline study, on the actual impact of the F-35A, the steps which have been taken to mitigate it, and the Department's recommendations. This would be informed by the Committee you recommend in the 2012 report.
- 5. Direct the Town Health Officers in the affected municipalities to issue Health Orders to stop further flights until monitoring is in place and the health hazard issues are addressed, given that thousands of people are at risk, including some particularly vulnerable ones; the source of harm is ongoing and expected to increase; no private remedies are available; and a broad geographic area is identified. Among other applicable laws and regulations, the Burlington Noise Ordinance prohibits "unreasonable noise."

Thank you. We appreciate your early reply.

Mary Fillmore in collaboration with Jennifer Decker, representing People for Peace and Security, and Col. Rosanne Greco, US Air Force (Retired), Save Our Skies

cc: Senator Patrick Leahy, Senator Bernie Sanders, Representative Peter Welch, Governor Phil Scott, Burlington Mayor Miro Weinberger, Winooski Mayor Kristine Lott, South Burlington City Council Chair Helen Riehle

#### public comment on F-35 presence

Zack Flaherty <Zachary.Flaherty@uvm.edu>

22

Nov 25, 2019 3:21 PM

Posted in group: BTVsound

To whom it may concern,

I would like to voice my concern regarding the wide ranging impacts of the F-35 jets presence at the Burlington airport. While I am gravely concerned of the detrimental effects it may have on my health and wellbeing as a resident of Burlington, I know there are others who face far greater harm than I.

Neighborhoods populated with primarily low-income families in Winooski are threatened with unsafe noise levels and declining property values. Exposing these marginalized communies to the unjust impacts of the jet will restrict these individuals ability to thrive in society.

I believe the 2019 Noise Compability Pr ogram does not do enough to protect residents of Chi enden county from the danger of these jets. Over 6600 people live within the noise danger zone outlined by the Air Force, thousands more travel through each day with lile to no noise protecon.

It would be irresponsible to connue f orward with the implementaon of these je ts into our community without analyzing the toll their presence will enact on residents hearing. In their Environmental Impact Study the Air Force stated that repeated exposure to the takeoff sounds of the F-35 at normal operaonal capacity is enough to cause permanent hearing loss.

Stronger acon mus t be taken to protect residents from the F-35's. Exposing Vermont's most populous region to the increased noise levels has the potenal to have catastrophic results, I'm hopeful that steps will be taken to prevent this fate.

Thank you

**Best Regards** 

Zack Flaherty

# BTVsound website contact us "Noise Mitigation Options"

BTVsound Website <cmurphy@jonespayne.com>

23

Nov 24, 2019 11:52 AM

Posted in group: BTVsound

From: Roger E Forcier < opschief2@yahoo.com>

Subject: Noise Mitigation Options

#### Message Body:

I am writing on behalf of my mother in law, Dolores Korpos who residences at #27 Maryland Street in South Burlington (Just across from BTV) and according to the Noise Exposure Map, falls in the 70 DNL area. There has been so much information posted out there we seem to be inundated concerning the plan for homes within this area.

So, to cut right to the chase, considering the location of her residence and being the only house on the East side of Maryland street, would BTV be interested in purchasing her residence as FAA funding comes available? If not, what are the options open to her?

I do understand the complexity of the overall situation although she is now 88 and is starting to contemplate her future. I do appreciate anything you can share with me so I can advise her on her options.

Thank You,

Roger E Forcier

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This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

### **My Comment - Draft Noise Compatibility Program**

Kai Mikkel Forlie <kaimikkelforlie@gmail.com>
Posted in group: BTVsound

24

Nov 1, 2019 2:59 PM

Gene,

I was recently made aware that the FAA granted funds to Logan Airport in Boston and Bradley Airport in Connecticut to pay for noise monitoring and tracking. It's also been brought to my attention that even though the 2008 Noise Compatibility Program contains a recommendation for KBTV to do noise monitoring and tracking, the airport never bothered to apply for the available FAA grant funds even though F-16 jets were regularly departing in afterburner.

Therefore, I urge you and your staff to immediately apply for FAA noise monitoring and tracking grants in order to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.

Accordingly, please immediately install noise monitor and tracking equipment in the following locations:

- On airport grounds where passengers, taxi drivers, airport personnel, etc., may be outdoors, especially at several places in the parking garage and outdoors on both sides of the two terminal buildings.
- Outside all the schools and daycare centers located in and near the noise danger zone.
- Throughout the Chamberlin School neighborhood of South Burlington.
- Throughout Winooski.
- Throughout the Chase Street, Grove Street, and Riverside Street neighborhoods of Burlington.
- Throughout the Williston neighborhoods in the departure and arrival flight paths.
- On the St. Michael's College campus in Colchester.

In all honesty, I am deeply disappointed that I have to make this request at all. After all this work should been accomplished years ago.

I look forward to your prompt response to my request.

Kai

Kai Mikkel Førlie

27 Germain Street

Burlington, Vermont

802-318-4137

### Real-time, Independent, Third-party Noise Monitoring and Reporting

Kai Mikkel Førlie <kaimikkelforlie@gmail.com>

25

Nov 24, 2019 7:55 PM

Posted in group: BTVsound

I am writing again to demand that the airport do what has been suggested in multiple official noise-related documents over many years and a) contract with an independent, third-party business to set up real-time noise monitoring stations at the airport, all around the airport and at key sites in Winooski, Burlington, Colchester and South Burlington and b) make the results gathered by those stations freely available to the public 24/7 in real time on the world wide web.

As the E.I.S. exhaustively details, sound produced by the F-35 can permanently damage hearing. However, unless we know what sounds are being produced and where they are being experienced we will never be able to determine the extent of the harms perpetrated locally. To date, the airport and the City of Burlington have been derelict in their shared duties to protect the public. How many decades of harms have been exacted on those who live, work, attend school and pass through the airport area as a result of military jet operations? We don't know because neither party has ever bothered to set up noise monitoring equipment.

Shame on the current and previous airport directors and shame as well on every mayor and city councilor that have overseen this airport since the first military jet arrived on the premises and done nothing to push this obligation. This lack of the most basic public health safety equipment must be installed immediately and the data produced must be publicized in real time and freely on the internet.

Sincerely,

Kai Mikkel Førlie Burlington, Vermont

### **BTV Noise Compatibility Plan**

Ann Goering <anngoering7@gmail.com>

26

Nov 24, 2019 7:10 PM

Posted in group: **BTVsound** 

I would not like the plan to stand as is.

There is no compatibility with the noise that is now coming and due to come in the future at our airport.

Noise is not a nuisance. It is a health issue. As a family physician working and living in the fight path I am aware of the impact on my health as fellas others.

Plans fly when people are outside. I was on my porch when 4 F-35's flew over in May 2019. I had hoped it was not as bad as the Air Force said- but it was WORSE. My ears hurt and rang for 2 hours after the sortie. The birds dove to the ground for protection A piece of art work vibrated off shelf and was destroyed.

We need studies that show the true impact of noise. Actual decibels, not averaged decibels.

In a world facing global worming the answer is not more energy consuming air conditioners. In a country facing an obesity epidemic the answer is not to make it so people cannot be outside/exercise/grow their own food/ visit with their neighbors.

I am asking the current plan be considered flawed and not accepted.

Feel free to contact me with more questions or concerns.

Ann Goering, MD 94 Chase Street Burlington VT 0540 802-660-8501

# **Draft Noise Compatibility Program**

Nancy Hellen <nbhellen@gmail.com>

27

Nov 23, 2019 7:04 PM

Posted in group: BTVsound

Draft Noise Compatibility Program,

I am an educator, and have worked at Chamberlin school. My husband worked at Winooski high school. We both experienced the f-16s as their noise brought interruptions to conversation or quieter learning times. The significance of the noise disturbance is difficult to study. Children who are deregulated by loud noise are definitely effected and take time to get back to a baseline of regulation. Children who have experienced war zones can be traumatized over and over by loud noise especially planes.

The learning of all children needs to be at the forefront of the F35 debate with focus on noise intrusion and long term consequences.

I send this study from the JNeurosci April 10, 2019. Title: Children May Struggle More With a Noisy Classroom Than Adult

https:jneurosci.org/content/39/15/2938

I came across it from a posting in Edweek Inside, 11.12.19. It points out that children have more difficulty following conversation in classrooms due to noise. As adults might not be aware as they are not effected at the same degree, teachers may overlook this causality. This noise impacts learning. As a concerned citizen and a teacher, I submit this study as evidence against the F35s.

The plan calls for mitigating sound in the schools. Why spend this amount of money on a bandaid style solution. The communities most impacted are mostly marginalized communities. The government, including our legislators, are overlooking the inequities of basing the f-35s in Burlington. Vermont needs to support a healthy environment for all families and schools.

Thank you, Nancy Hellen South Burlington

# F-35 noise really loud around 1:00 yesterday Nov. 22

Jane Hendley <jhendley@burlingtontelecom.net>

28

Nov 23, 2019 9:05 AM

Posted in group: BTVsound

Dear Jones Payne (if I don't have your name right I apologize)

I have heard them before not quite this bad. I was next to UVM's Davis Center and near a couple of smokers who had stopped chatting because you couldn't hear yourself speak. And I was taking a break myself.

This is not necessary. The Air Force can take steps to make these planes quieter and only fly one at a time. Climate change is an issue too.

There is not enough oversight of the military because of the vast sums of money involved. That is not right!

Sincerely,

Jane Hendley, Burlington resident Sent from my iPad

### F-35: Tweaks don't help; it should be elsewhere.

#### ROBERT HERENDEEN <raherendeen@yahoo.com>

29

Nov 24, 2019 6:15 PM

Posted in group: BTVsound

I live on Appletree Point and will not experience the extreme F-35 noise levels expected for Winooski and South Burlington. However I have noted a dramatic increase in noise from the few F-35 flights (probably takeoffs) I have heard in the my neighborhood. I can multiply in my head to imagine how oppressive it is in the loud zones nearer the airport.

I think it unfair, not to say outrageous, to offer sound-proofing to people for protection against admitted noise threats to health, hearing, and learning...instead of mitigating or removing the threat. The program is expensive (ca. \$50,000 per living unit), on a long time scale (what to do while waiting?), and acquiesces to forcing people indoors. The last is ironically wrong in green and healthy Vermont.

All the health issues are well documented. The record shows that other, more isolated locations could, and should, have been chosen. That is the critical and final argument for me. The F-35 should not be in Burlington.

#### Robert A. Herendeen

83 Nottingham Lane Burlington, VT 05408 802/862-5017 raherendeen@yahoo.com Home where fall is flashing, winter is on the wind, and the northern spy apple makes me sweat under the eyes.

#### F-35 noise

Susan Hills <suezqinfla@icloud.com>

30

Nov 22, 2019 3:41 PM

Posted in group: BTVsound

I heard and saw the F35 flying overhead on Tuesday at 2:00 as I walked from my house to my car in East Burlington. I wanted to duck and take cover but unfortunately there was no immediate shelter around. The sound was super loud and menacing and felt like it lasted an eternity; I clocked it at two minutes. I held my ears for the duration but felt a ringing discomfort afterward that lingered for a while. My immediate concern was how to avoid another episode and how to protect myself from future assaults.

Susan Hills

30 East Village Drive

Burlington

Sent from my iPhone

#### F35 are immoral

jeanhopkins <jeanhopkins@burlingtontelecom.net>

31

Nov 25, 2019 7:00 AM

Posted in group: BTVsound

Thou shall not kill. The sound of the F35 jets reminds me of how horrible the military industrial complex has become. Capitalism breeds greed which encourages those in power to enslave and murder the rest of humanity. The deadly deafening rumble of jet bombers is a wake-up call to all of us who have been taught to Love One Another.

It's not just the deafening noise, but also the pollution of the fuel and the misdirected money into an economy that could be building homes instead of weapons.

Socialism is on the rise as people realize the disasters that capitalism has wrought on the human race and the planet earth.

Jean Hopkins, Burlington VT

### **Public Comment on F35 noise**

Anya Hunter <anyaraven1919@gmail.com>

32

Nov 22, 2019 1:02 PM

Posted in group: BTVsound

#### TO WHOME IT MAY CONCERN:

I live in the Riverwatch Condos, off Riverside Avenue, in Burlington, on the flight path. My experience of the sound, sitting in my condo, was terror and horror. It was a penetrating roar. It felt and sounded like a warplane. I had flashes of people in bunkers during the bombings of World War II. I was terrified. I am a sensitive person, which makes me a good psychotherapist but vulnerable to warplanes zeroing in on my home. I was shaken and scared for two days. If I felt this way, as a grown woman, what would happen to a child hearing this? An infant? Pets? Other animals, birds? Refugees in Winooski? Veterans? How would this affect anyone with PTSD, anxiety, depression? The elderly, the sick?

#### Some internet research tells us:

- A 2017 study published in the New York Times reported that seven in 10 U.S. teens say mental health is a
  big issue among their peers. How will teens in Burlington and Winooski make sense of this warplane and
  its horrifying roar?
- Reasons for the "rising epidemic of anxiety in children and teens" presented in a 2016 article included post-9/11 anxiety, terrorism and perceived threats. How will seeing and hearing a warplane impact children and teens?

This plane is a horrifying choice for our city, our people, our children and our Guard.

Thank you, Anya Hunter

#### Anya Raven Hunter, MSW, LICSW

Integrative counseling, health coaching & clinical hypnosis video-conferencing and in-office 802-233-6116 anyaraven1919@gmail.com www.eatingwithgrace.com

#### **Adjunct Professor, Integrative Health Minor**

College of Nursing & Health Sciences University of Vermont Anya.Hunter@uvm.edu

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#### F-35

Genevieve Jacobs <genev8@gmail.com>

33

Nov 25, 2019 8:49 AM

Posted in group: BTVsound

I'm writing to beg for action by the FAA and USAF to protect local citizens and environment from the negative impacts of the burgeoning F-35 jet presence in metro Chittenden County VT.

I'm a born Vermonter, growing up a half mile from the Jericho ANG testing range during the 1960s and 1970s and accustomed to plenty of munition noise, including "sonic booms" that rattled our windows as a result. The F-35 is on another order of magnitude for disruption of health and quality of life that I already find unacceptable.

I've lived in a Burlington the past 30 years, where I have raised family and have deep ties to my community: moving away is not an option I would willingly consider at age 58.

I have a hereditary heart condition called SVT, Supra-ventricular tachycardia. It is an electrical "short" due to a physical structure which, when triggered by stressors, causes my heart rate to kick from normal 90 bpm to 180 plus in an instant. These spells last from a moment or minutes (during which I use Valsalver techniques to bring my heart rate down) to up to 8 hours requiring medical intervention, as has happened 3 times in past few years.

The first of these prolonged spells was triggered while I was watching the Blue Angel airshow and experienced a flyover at Battery Park. I am apprehensive that exposure to F-35 low frequency high decibel noise is life threatening hazard for me and others with SVT.

I've taught over 25 years in area colleges, one of which (CCV) is in the F35 flyover Winooski close to airport. I am not sure I will be able to continue my career as professor at this college (since 1996) when F-35 noise becomes a routine exposure there.

I urge you to reconsider the negative impacts of basing these planes in our State's most densely populated center, and take immediate preventative action on our behalf.

Thankyou for your consideration, Genevieve Jacobs, MA 165 N Champlain St Burlington VT 802-658-3995

--

Genevieve Jacobs, M.A. 165 N. Champlain St. Burlington, VT 05401 (802) 658-3995 genev8@gmail.com www.wateranddreams.com

#### **F35**

Gordon Jacobs <gordonsword@gmail.com>

34

Nov 23, 2019 8:58 AM

Posted in group: BTVsound

I'm a Burlington North End resident. I have been awakened or startled by the thunderous sounds of the F35. This noise is loud enough to drown out any communication or quiet that I'm attending to or enjoying.

I will never understand the logic of basing this war machine in urban areas- yes, even Vermont can talk about having an urban area.

I fear that what I've personally experienced is unbearable for those, especially children, living or trying to live even closer to BIA.

I understand that the current number of F35s is only a small fraction of the proposed basing level, therefore-

I WANT TO KNOW THE SCHEDULE OF ARRIVALS AND TOTAL NUMBER OF THESE PLANES THAT WE CAN ANTICIPATE (AND REGRET OR FIGHT.)

I'D ALSO LIKE TO UNDERSTAND WHY AN URBAN BASING WAS EVER CONSIDERED.

Sent from my iPhone

# 2019 Draft Noise Compatibility Program

kirk jones <joneskirk99@hotmail.com>

35

Nov 22, 2019 6:25 PM

Posted in group: BTVsound

Hello,

I am a Burlington resident and business owner and do not support the basing of the f-35s or the f-16s in Burlington, or anywhere else.

The excessive noise is damaging to the physical, mental, and emotional bodies of the people inside and outside of the planes. It directly disrupts me and my clients in my vibrational sound therapy business. It is dangerous to children, workers, neighbors, cyclists, pedestrians, and the public at large as is apparent from reading the faa and air force's own documents.

Basing jetfighters in south Burlington is completely unnecessary. In fact war is completely unnecessary when we collectively shift our fears to love. It's not complicated or difficult. The US can lead by example and put down their guns first. It's a sign of strength and maturity. All of the time, money, and energy focused on 'defense' can be easily directed to rebuilding and nurturing society and healing the toxic burden on the earth for ourselves, our communities, the global community, our children, and our children's children's children.

Once we stop acting like children, we can actually start to be good parents and be responsible, caring stewards of the earth and humanity.

Kirk Jones, MS Evolvlove Sound Therapy, owner KDSJ Environmental, owner

#### Re F-35

annie jordan <info@anniejordan.com>

36

Nov 25, 2019 4:05 PM

Posted in group: BTVsound

I'm writing to beg for action by the FAA and USAF to protect local citizens and environment from the negative impacts of the burgeoning F-35 jet presence in metro Chittenden County VT.

I've lived in the Burlington/Winooski/Colchester area since 1996 and became accustomed to the F-16's daily disruptions. The noise emitted was not pleasant to me or the animals in my care. The F-35 is on another order of magnitude for disruption of health and quality of life that I already find unacceptable.

Since I have lived here for more than 20 years and I have deep ties to my community: moving away is not an option I would willingly consider at my age of 41 and especially as i recover from cancer.

I have worked with people at the margins of dominant society for over 25 years and as has been noted many times before, the people who have been and will be most negatively impacted by these jets are of lower income and can not move or do not have access to affordable sound proofing or ear guards and even if they were moved by the state, the disruption to community cohesion is another detriment to the health and longevity of our community members and citizenry as research has shown thatseparting community members and isolating people and families by movingthex to new locations adds greatly to the decline of ones' health.

I am apprehensive that exposure to F-35 low frequency high decibel noise is life threatening hazard for many people with various health concerns in the area.

I urge you to reconsider the negative impacts of basing these planes in our State's most densely populated center, and take immediate preventative action on our behalf.

Thankyou for your consideration, Annie Jordan, M.A. Depth Psychology

# Public comment re Draft NCP and the Burlington proposal to modify the existing NCP

Kahn, Janet <Janet.Kahn2@uvmhealth.org>

37

Nov 25, 2019 4:23 PM

Posted in group: BTVsound

Attached and below, please find my public comment regarding the Draft NCP.

Public comment re Draft NCP and the Burlington proposal to modify the existing NCP

This is a public comment regarding the 2019 Draft Noise Compatibility Program and the Burlington proposal to modify the existing NCP.

The NCP states that "The City of Burlington, Vermont is proposing to modify its existing Noise Compatibility Program to reflect the consensus among the affected jurisdictions of the impacts of aircraft operations at BTV and the <u>desire to preserve the residential areas located near the airport and ensure the communities remain stable and continue to provide a source of affordable housing for the region.</u> Yet, the FAA states the obvious fact that "the best way to protect the people in the noise danger zone is to move them out and demolish the homes because sound insulation does not work when windows are open or people go outside."

In addition, I call your attention to the fact that the F-35 planes have already arrived and are already flying, despite the fact that no sound remediation has yet taken place, leaving the homes unsafe. And according to the schedule, the sound remediation of the identified neighborhoods would not be complete for approximately two years.

I have the following questions:

**QUESTION 1:** How did the NCP conclude that the consensus of the affected jurisdictions is to move forward with a noise reduction remediation when the referenda passed by the citizens of each of the three most highly affected towns was for the F-35's not to be placed at BTV?

**QUESTION 2a:** What is the algorithm used by which the NCP or Burlington officials have concluded that rendering residents' homes sufficiently soundproofed by remediation which works only if people never open their windows and do not let their children play in their own yards, fits within the concept of a fair remediation? How does this still allow one to see the homes as affordable housing when we must assume that reasonable people would not buy a home that rendered their children captive?

**QUESTION 2b:** Can you show us the results of real estate assessments based on experience rather than computer modeling that have shown such homes to have continuing value comparable to their value before noise endangerment and remediation?

If the city continues to fail to provide an explanation, though expressly required by the FAA, and though officially requested in this and other public comments, I suggest that the FAA, which is concerned about public safety should reject the flawed draft NCP.

I am a healthcare practitioner, who served for 3 years on President Obama's National Advisory Board on Prevention, Health Promotion and Integrative and Public Health. It is easier to prevent illness than to cure it, or remedy it. Please protect our children.

Thank you very much,

Janet Kahn, PhD, LMT

**Burlington VT** 

Janet R. Kahn, PhD, LMT

Dept of Psychiatry

Larner College of Medicine

&

Dept Rehab & Movement Science

College of Nursing & Health Sciences

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### BTVsound website contact us "2x exposure - work & home would be ruined"

BTVsound Website <cmurphy@jonespayne.com>

38

Oct 31, 2019 10:38 AM

Posted in group: BTVsound

From: Theresa Keller <t.keller@godelta.com>

Subject: 2x exposure - work & home would be ruined

#### Message Body:

I'm one of the few who lives and works within the 65 DNL range. My residence is a rented apartment at the corner of North St and W Spring, and my office is located on Ethan Allen Dr.

I don't think this program is necessary for our city or the base, and it will end up driving more people away from the area as opposed to opening up any opportunities.

I also can't even imagine trying to carry on a phone conversation in my office or from my home office with this insane amount of noise, and I don't think the plans account for that. Business HAS to be able to continue for the people who live and work here, and bringing the F35s might be the reason I leave the state.

I don't think anyone can reasonably assure anyone working from anywhere within the range of sound mitigation that it will be "enjoyable", and as someone who was raised going to airshows all over the country as my father is a pilot, I know firsthand that the noise is not meant to be endured regularly by civilians - not as they sleep, walk their dogs, raise their kids, and certainly not as they try to have business meetings or hold sales calls with clients and customers all over the world.

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

## **Draft Noise Compatibility Program**

**Maureen Labenski** <maureenlabenski@gmail.com> Posted in group: **BTVsound** 

39

Nov 24, 2019 9:59 AM

To Whom It May Concern:

I live in downtown Burlington and have not experienced any untoward affects from the new jets. When I'm inside my house I hear them, but the sound is not objectionable. When I'm walking on the waterfront or the downtown shopping area the noise from the jets is loud, but not problematic. It is of short duration and I recognize the sound as part of what comes with maintaining a capable protective force.

Maureen Labenski 40 College St. Burlington, VT 05401

## Public comment (NCP)

Alexis Lathem <alexislathem@gmail.com>

40

Nov 25, 2019 4:47 PM

Posted in group: BTVsound

RE: 2019 Draft Noise Compatibility Program (NCP)

To Whom it May Concern;

I am writing about the noise of the F35 fighter jets over Burlington, Winooski, Williston, and Richmond and the region.

I teach at the Community College of Vermont in Winooski. Walking to the building from the waterfront one afternoon, I was overflown by two low flying F35 jets. They flew so low over my head that I experienced a kind of traumatic shock. I did cover my ears, but I felt its impact on my heart – something I have never felt before. This kind of experience should not be expected unless one is in a war zone. It is completely incompatible with civilized existence.

For many years I have experienced the disruption of F16 flying over our building. It required us to stop what we were doing and wait until the planes had passed, because the noise was too great for anyone to talk or listen. I have not yet been in the classroom when the F35s have passed, but I do know how much louder these are.

There are no mitigation plans for people who are outside. It will be impossible for anyone to use the beautiful waterfront park in Winooski – as this is where the F35s not only fly over but <u>fly low</u>. We will not be able to use the outdoor sitting areas, and pedestrians will be harmed repeatedly.

I have also been hearing the planes from my home in Richmond. We do not normally hear any plane noise here. We have enjoyed a quiet place to live but no longer. I was not aware that Richmond would be affected.

This means that the entire area between Richmond and Burlington will be affected – where I spend a good deal of time outdoors, often on a bicycle. I do not know that I will be able to do this in the future.

The F35s are not just noise. They completely change the nature of living here. I am afraid that this part of Vermont will no longer be a desirable place to live – or a place where we can protect our health and our children's health.

Sincerely,

Alexis Lathem

Richmond, Vermont

### FW: FAA Grants are available for aircraft noise monitoring

Nicolas Longo <nlongo@btv.aero>

41

Oct 31, 2019 4:13 PM

Posted in group: BTVsound

Can you make sure this email is added to the public comments. Thanks Diane.



Nicolas Longo, C.M. | Deputy Director of Avia on

1200 Airport Drive, #1 South Burlington, VT 05403 nlongo@btv.aero | www.btv.aero p: 802-863-2874 ext. 236 | m: 802-503-7368

From: Gene Richards <grichards@btv.aero> Sent: Thursday, October 31, 2019 4:11 PM To: James Marc Leas <jolly39@gmail.com>

Cc: Kurt Wright <kwright@burlingtonvt.gov>; Tracy, Maxwell K. <maxwell.k.tracy@gmail.com>; Perri Freeman <pfreeman@burlingtonvt.gov>; Jack Hanson <jhanson@burlingtonvt.gov>; Sharon Bushor <sbushor@burlingtonvt.gov>; Brian Pine <bpine@burlingtonvt.gov>; Chip Mason <cmason@burlingtonvt.gov>; Karen Paul <kpaul@burlingtonvt.gov>; Ali Dieng <adieng@burlingtonvt.gov>; Adam Roof <ARoof@burlingtonvt.gov>; Joan Shannon <jshannon@burlingtonvt.gov>; Mayor's Office <mayor@burlingtonvt.gov>; Brian Lowe <brian@burlingtonvt.gov>; helenriehle@gmail.com; Meaghan Emery <meaghanee@yahoo.com>; Tim Barri < mbobo3@yahoo.com>; Tim Barri <tbarri @sburl.com>; Tom Chi enden <tchi enden@sburl.com>; Dave Kaufman <dkaufman@sburl.com>; Seth Leonard <sleonard@winooskivt.org>; Nicole Mace <nmace@winooskivt.org>; Eric Covey <ecovey@winooskivt.org>; Kris ne Lo <klo @winooskivt.org>; Hal Colston <hcolston@winooskivt.org>; James Duncan <jduncan@winooskivt.gov>; Amy Lafaye e <alafaye e@winooskivt.gov>; Michael Myers <mmyers@winooskivt.gov>; Williston School <wsinforma on@cvsdvt.org>; Jeff Munger <jeffmunger@burlingtontelecom.net>; Bill Keogh <br/><bkeoghsr@yahoo.com>; jeffrey.schulman@uvm.edu; Helen Riehle 3 <hriehle@sburl.com>; Tim George <tgeorge@burlingtonvt.gov>; Richard Douce e <richard.douce e@faa.gov>; Jordan Redell <iredell@burlingtonvt.gov>; Diane Carter <dcarter@jonespayne.com>; Nicolas Longo <nlongo@btv.aero> Subject: Re: FAA Grants are available for aircra. noise monitoring

Thank you, Mr. Leas. We will accept this email as public comment as part of the NCP process.

Best,

Gene



#### **Gene Richards | Director of Aviaon**

1200 Airport Drive, #1 South Burlington, VT 05403 grichards@btv.aero | www.btv.aero p: 802-863-2874 | m: 802-343-9909

"There is always a way to do it be 2 er .. Find it "

From: James Marc Leas <jolly39@gmail.com>

<dcarter@jonespayne.com>; Nicolas Longo <nlongo@btv.aero>
Subject: Re: FAA Grants are available for aircraft noise monitoring

-Thomas Edison

Sent: Thursday, October 31, 2019 3:16 PM To: Gene Richards < grichards@btv.aero> Cc: Kurt Wright <kwright@burlingtonvt.gov>; Tracy, Maxwell K. <maxwell.k.tracy@gmail.com>; Perri Freeman <pfreeman@burlingtonvt.gov>; Jack Hanson <jhanson@burlingtonvt.gov>; Sharon Bushor <sbushor@burlingtonvt.gov>; Brian Pine <bpine@burlingtonvt.gov>; Chip Mason <cmason@burlingtonvt.gov>; Karen Paul <kpaul@burlingtonvt.gov>; Ali Dieng <adieng@burlingtonvt.gov>; Adam Roof <ARoof@burlingtonvt.gov>; Joan Shannon <jshannon@burlingtonvt.gov>; Mayor's Office <mayor@burlingtonvt.gov>; Brian Lowe <bri>durlingtonvt.gov>; helenriehle@gmail.com <helenriehle@gmail.com>; Meaghan Emery <meaghanee@yahoo.com>; Tim Barri② <2mbobo3@yahoo.com>; Tim Barril <tbarril @sburl.com>; Tom Chilenden <tchilenden@sburl.com>; Dave Kaufman <dkaufman@sburl.com>; Seth Leonard <sleonard@winooskivt.org>; Nicole Mace <nmace@winooskivt.org>; Eric Covey <ecovey@winooskivt.org>; Kris?he Lo? <klo? @winooskivt.org>; Hal Colston <hcolston@winooskivt.org>; James Duncan <iduncan@winooskivt.gov>; Amy Lafayele <alafayele@winooskivt.gov>; Michael Myers <mmyers@winooskivt.gov>; Williston School <wsinforma@on@cvsdvt.org>; Jeff Munger <jeffmunger@burlingtontelecom.net>; Bill Keogh <br/>bkeoghsr@yahoo.com>; jeffrey.schulman@uvm.edu <ieffrev.schulman@uvm.edu>; Helen Riehle 3 <hriehle@sburl.com>; Tim George <tgeorge@burlingtonvt.gov>; Richard Douce e <ri>crichard.douce e@faa.gov>; Jordan Redell </ri>

[WARNING]: External Message

#### Dear Gene,

I am confused. Would you please let me know what is the significance of the recommendation in the latest Draft Noise Compatibility Plan for noise monitoring and tracking in view of the fact that **noise monitoring and flight tracking also were recommended in the 2008 Noise Compatibility Program Update?** On pages 14 and 15 of that 2008 program update you will see the noise monitoring and tracking recommendations.

The fact that the 2008 recommendations were "not fully implemented" is expressly noted in the 2019 draft on page 15 and in the section of the report you reference, section 4.1 on page 17.

In view of the noise monitoring and tracking recommendation already being in the 2008 program update, what prevented you from applying for the FAA grant between then and now? Especially in view of the F-16 using its afterburner, and the obvious learning and hearing injury it posed to children, adults, homes, and schools it seems odd that the noise monitor and tracking recommendations were not fully implemented by the airport. What was the reason the airport decided the public should not have the F-16 afterburner noise information? Is a further recommendation in the latest draft actually needed? Will the recommendation be followed this time?

Will you, as airport director, commit to applying for the available FAA grant for monitoring and tracking the F-35 noise? Or do you prefer to leave it merely as a recommendation that will again not be fully implemented? Thank you very much James Marc Leas

On 10/31/2019 12:38 PM, Gene Richards wrote:

Mr. Leas,

Thank you for including me on the email chain. I wanted to point you in the direcon of the Dr a Noise Compability Plan published on our website www.btvsound.com, which was also discussed in much detail at our October 24th event. Within this document are recommended noise compability program revisions, specifically outlined in Chapter 4. As you may be aware, the Technical Advisory Commie eespent a great deal of me discussing each one of these it ems and recommended this to be moved forward to public comment, inclusive of a flight tracking and noise monitoring system. Specifically, Secon 4.1 outlines a recommendaon to purchase a permanent noise monitoring system. Additionally, Secon 4.2 outlines recommendaons to ulize an outside firm to perform flight track analysis of radar data. Both of these systems are important to operate simultaneously as the noise monitoring system alone would be picking up all ambient noise like vehicle traffic, etc. By combining, we can associate noise using radar data specific to aircra oper aons. Your technical recommendaons for placement and specs will be discussed in future conversaons with the FAA, Airport Consultants and the Airport administraon to ensure all regulatory requirements are met as well as funding requirements. Further, conversaons with all local municipal leadership will connue to discuss priorize aon of each of the recommended Noise Compability Programs, including noise and radar monitoring.

As you can see, these are both recommendaons within the NCP dr a curr ently, which as you may know is the first step to apply for federal grants. As Richard recommended, we are accepng c omments on this dra which c an be electronically submi ed at btvsound@jonespayne.com

Again, thank you for your email and please do not hesitate to contact me if you have further quesons.

Best,

Gene



**Gene Richards | Director of Aviaon** 

1200 Airport Drive, #1 South Burlington, VT 05403 grichards@btv.aero | www.btv.aero p: 802-863-2874 | m: 802-343-9909

"There is always a way to do it beller .. Find it "

-Thomas Edison

From: James Marc Leas <jolly39@gmail.com> Sent: Thursday, October 31, 2019 11:31 AM To: Gene Richards <grichards@btv.aero>

Subject: Fwd: FAA Grants are available for aircraft noise monitoring

[WARNING]: External Message

Hi Gene,

My apologies for mistakenly omitting you in this email. I hope you will take advantage of the availability of FAA grants for noise monitoring to promptly submit an application for a noise monitoring grant. I will be happy to help. Please let me know your decision. Thank you for considering this.

Best regards,

**Jimmy** 

----- Forwarded Message -----

**Subject:**FAA Grants are available for aircraft noise monitoring

Date: Thu, 31 Oct 2019 11:23:02 -0400

From: James Marc Leas < jolly39@gmail.com>

To:Doucette, Richard (FAA) < richard.doucette@faa.gov>

**CC:**Kurt Wright <a href="mailto:kwright@burlingtonvt.gov">kwright@burlingtonvt.gov</a>, Tracy, Maxwell K.

<maxwell.k.tracy@gmail.com>, Perri Anne <pfreeman@burlingtonvt.gov>, Jack Hanson city <ihanson@burlingtonvt.gov>, Sharon Foley Bushor <sbushor@burlingtonvt.gov>, Brian Pine <br/>
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#### Richard Doucette, FAA Administration

#### Hi Richard,

Thank you for your responses below. I am adding responsible Burlington, South Burlington, and Winooski elected officials and the airport commission members to this communication so they are aware of the availability of FAA noise monitoring grants and can lend their ideas and resources, if needed.

Just to get city elected officials up to date: Last Thursday at the public meeting at the airport you told me that the FAA does provide grants for the purpose of aircraft noise monitoring. You also said that the FAA provided such grants for noise monitoring at Logan Airport in Boston and Bradley Airport in Connecticut. You also said that the noise monitoring systems purchased with those grants are in place and working at those airports now and that the noise monitoring data is open to the public. In your email below you stated the amounts of money the FAA provided for the noise monitoring systems at those two airports.

Gene Richards, our airport director, has proven quite adept at applying for FAA grants. I hope he will agree to submit an application for an FAA grant to install internet linked noise monitoring sensors so F-35 noise levels will be measured and will be available for all to see. And so decisions about F-35 basing and/or mitigation for nearby residents, passengers, and workers at our civilian airport in a densely populated city location can be based on facts.

My suggestion is that the grant request funds for noise monitoring sensors and recording devices to measure and record actual airport noise levels at all frequencies, including the low frequency sound that is emitted by F-35 jets. In view of the possibility of F-35 afterburner use, the noise sensors should also be accurate and sensitive to at least 130 decibels, the level the Air Force said can cause "immediate and permanent hearing damage." The data should be recorded as a function of time so members of the public can see the sound curves, including the peak sound level and the time for the F-35 event at each location. As to locations, I recommend that sound sensors be located:

- where passengers may be standing outside to board or disembark from airplanes on the runway side of the airline and general aviation terminal buildings.
- where passengers and taxi drivers may be standing outside on the street side of the airline and general aviation terminal buildings.
- where passengers and rental car workers may be located inside the parking garage where a worker reported particularly loud reverberating F-35 noise on takeoff.
- where pedestrians and bicyclists may be on public roads adjacent airport property when the F-35 takes off.
- where pedestrians, children, and bicyclists may be outdoors in neighborhoods on each side
  of airport property and along the F-35 flight path when taking off in both directions.

The fact that the FAA offered substantial grants to Logan and Bradley for noise monitoring is particularly important news for the Burlington area in view of the much higher noise levels for the F-35 admitted by the United States Air Force in its Environmental Impact Statement, as described and linked to yellow highlighted pages below, and in view of the Air Force reports of cognitive impairment and hearing loss from high aircraft noise levels in those pages. Here is our chance to get the facts about noise level where children and adults will be located in the 5 cities and towns most affected.

Thank you very much.

Best regards,

James Marc Leas

On 10/31/2019 10:45 AM, Doucette, Richard (FAA) wrote:

Boston has received many noise grants, going back to the early 80s. At least one of those funded noise monitoring equipment: \$564,000 in 2003.

Bradley received approximately \$390,000 for noise monitoring equipment in 2007.

#### Richard P. Doucette

Federal Avia2 on Administra2 on

1200 District Avenue

Burlington MA 01803

781-238-7613

From: James Marc Leas <jolly39@gmail.com> Sent: Thursday, October 31, 2019 10:16 AM

To: Douce e. Richard (FAA) < richard.douce e@faa.gov>

Subject: Re: Air Force admissions

Hi Richard,
What was the amount of money granted by the FAA for the noise monitoring system at Logan Airport? At Bradley Airport?
Thank you.
Best regards,
Jimmy

On 10/31/2019 8:41 AM, Doucette, Richard (FAA) wrote:

No one will argue that noise can affect learning, and very high noise can result in hearing loss. The DOD EIS has survived various legal challenges, and it is not the role of the FAA to religate these issues. All we can do is provide some miggagon opgons. That is all we have at our disposal.

Individuals do not apply for noise monitoring grants. Only qualified "airport sponsors" (i.e. airport owners/operators) are eligible to receive FAA grants. You should recommend to the City of Burlington that they install noise monitoring as part of their Noise Compa®bility Program. Public comments on the draft Plan (a® ached) are being solicited through November 25. They may be submi®ed electronically to: btvsound@jonespayne.com

#### Richard P. Doucette

Federal Avia2on Administra2on

1200 District Avenue

Burlington MA 01803

781-238-7613

From: James Marc Leas <jolly39@gmail.com> Sent: Wednesday, October 30, 2019 9:59 PM

To: Douce e. Richard (FAA) < richard.douce e@faa.gov>

Subject: Air Force admissions

#### Hi Richard,

- 1. Here is a link to highlighted pages of Volume II of the F-35 Final EIS in which the Air Force admits to permanent hearing loss and cognitive impairment of children. EIS Volume II noise Appendix C yellow highlighted
- 2. Here is a link to highlighted pages of Volume I of the EIS in which the Air Force admits to very high F-35 noise levels, including 115 decibels with afterburner off at 1000 foot elevation. Volume I Noise highlighted pages
- 3. Please let me know how to apply for a grant for noise monitoring as was done at Logan Airport and at Bradley Airport.
  Thank you very much.
  Best regards,
  Jimmy

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Please note that this communication and any response to it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.

# Public comment to Draft NCP and the Burlington proposal to modify the existing NCP

James Marc Leas <jolly39@gmail.com>

42

Nov 20, 2019 1:23 PM

Posted in group: BTVsound

This is a public comment to 2019 Draft Noise Compatibility Program and the Burlington proposal to modify the existing NCP.

The NCP states:

The City of Burlington, Vermont is proposing to modify its existing Noise Compatibility Program to reflect the consensus among the affected jurisdictions of the impacts of aircraft operations at BTV and the desire to preserve the residential areas located near the airport and ensure the communities remain stable and continue to provide a source of affordable housing for the region.

The FAA says the best way to protect the people in the noise danger zone is to move them out and demolish the homes because sound insulation does not work when windows are open or people go outside.

Will the modification to the existing Noise Compatibility Program protect children whose homes are in the noise danger zone when they go outside to play?

If the modification to the existing Noise Compatibility Program does not protect children whose homes are in the noise danger zone when they go outside to play will the airport prohibit takeoff of any F-35 jet during times when children ages 0-18 my be outside playing?

If the modification to the existing Noise Compatibility Program does not protect children whose homes are in the noise danger zone when they go outside to play and the airport does not prohibit takeoff of any F-35 jet during times when children ages 0-18 my be outside, will the airport issue a warning before allowing a flight of an F-35 jet?

Will the modification to the existing Noise Compatibility Program protect people whose homes are in the noise danger zone when they go outside to garden or walk their dogs?

Will the modification to the existing Noise Compatibility Program protect people whose homes are in the noise danger zone when windows are open in hot weather?

What will the modification to the existing Noise Compatibility Program do to protect people whose homes are in the noise danger zone in hot weather when windows are open?

If the modification to the existing Noise Compatibility Program does not protect people whose homes are in the noise danger zone in hot weather when windows are open will the airport prohibit flights of F-35 jets during those times?

If the modification to the existing Noise Compatibility Program does not protect people whose homes are in the noise danger zone in hot weather when windows are open and if the airport does not prohibit flights of F-35 jets in hot weather when windows are open what will the airport do to protect people in hot weather when windows are open and F-35 jets are permitted to take off?

If the modification to the existing Noise Compatibility Program does not protect children whose homes are in the noise danger zone playing outside, people whose homes are in the noise danger zone gardening or walking dogs, and people inside their homes in the noise danger zone in hot weather when windows are open, and if the airport does not prohibit flights of F-35 jets in hot weather when windows are open, and if the airport has no plan to protect people in hot weather when windows are open, and if F-35 jets are permitted to take off in any of these situations, is the modification to the existing Noise Compatibility Program flawed?

If is the modification to the existing Noise Compatibility Program does not protect children whose homes are in the noise danger zone playing outside, people gardening or walking dogs, and people inside their homes in hot weather when windows are open, and if the airport does not prohibit flights of F-35 jets in hot weather when windows are open, and if the airport has no plan to protect people whose homes are in the noise danger zone in hot weather when windows are open, and if F-35 jets are permitted to take off in any of these situations, should the airport apply for a grant to continue with the existing FAA plan that is the preferred FAA plan that the FAA says is the only way to actually protect children and adults: to purchase all 2,600 F-35-noise-damaged homes in the noise danger zone, move the people out, and demolish the homes?

What is (a) the danger to the public and what is (b) the cost of each of the following alternatives to the proposed modification to the existing Noise Compatibility Program?

- 1. Build a new 8300 foot runway away from a populated area in Vermont, where no people live in the oval shaped region around the runway identified in the Noise Exposure Map that is about 1 mile wide and 6 miles long?
- 2. Use an existing runway at one of the 17 airports in Vermont that is already located away from a populated area?
- 3. Cancel the F-35 basing in the City of South Burlington and taking off over Burlington, Winooski, Williston, and Colchester, and instead provide a mission for the Vermont Air National Guard that is compatible with its present location in a densely populated city?

Will the City of Burlington strongly advocate for at least one of these remedies? If not, why not?

# Public comment to the 2019 Draft NCP: Noise monitoring & tracking and noise disclosure

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 21, 2019 11:33 AM

Posted in group: BTVsound

43

This is a public comment to the 2019 Draft Noise Compatibility Program (NCP).

This public comment regards required explanation missing from the NCP

Three examples are given: Noise monitoring, flight track monitoring, and real estate disclosure

The 2019 Draft NCP states:

The NCP documentation must recount the development of the program, including a description of all measures considered, the reasons that individual measures were accepted or rejected, how measures will be implemented and funded, and the predicted effectiveness of individual measures and the overall program.

However, the NCP fails to "recount the reasons that individual measures were accepted or rejected" for numerous measures that were not implemented in the 11 years since the 2008 NCP was issued. Following are three examples of why the 2019 NCP is flawed for failing to provide the reasons and should be rejected by the FAA if full and complete explanations are not provided.

1. The 2019 Draft NCP states in section 3.2.1, "Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise:"

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP. (2008 ROA Measure 8). Status: Not fully implemented. The City of Burlington, Vermont updated the BTV NEM in 1997, 2006 and 2015. This documentation represents the second NCP update. The City updated the NCP in 2008. A standing Sound Committee meets quarterly throughout the year.

However, the 2008 NCP and the 2008 ROA measure 8 both state, "...This measure also included the recommendation of the Technical Advisory Committee as a Noise Abatement Committee and purchase of a permanent noise monitoring system. Status: Not implemented."

- a) No explanation is given in the 2019 Draft NCP as to why mention is omitted in the 2019 Draft NCP of the recommendation of the Technical Advisory Committee to purchase a permanent noise monitoring system--even though this was expressly included in the 2008 ROA.
- b) Nor is any reason given as to why this part of 2008 ROA measure 8 was not implemented or not fully implemented by 2019 in the 2019 NCP. As stated above, "The NCP documentation must recount . . . the reasons that individual measures were accepted or rejected." The 2019 NCP provides words that do not amount to reasons for failure to implement.

#### For both of the above reasons the 2019 NCP is flawed.

2. The 2019 Draft NCP states in section 3.2.2, "Flight Track Monitoring, Utilization of an outside firm to perform flight track analysis of radar data on a temporal sampling basis (2008 ROA Measure 9). Status: Not fully implemented. The City is moving forward with prospective companies that analyze flight track data."

The 2008 NCP states, "Utilization of an outside firm to perform flight track analysis of radar data on a temporal sampling basis (ROA Section II.B.9)."

The 2008 ROA measure 9 is nearly identical: utilize an outside firm to perform flight track analysis of radar data on a temporal sampling basis. Status: Not implemented."

But the 2019 NCP provides **words that do not amount to reasons** for failure to implement the flight tracking. No reason that 2008 ROA measure 9 was not implemented or not fully implemented by 2019 is given in the 2019 NCP. As stated above, "The NCP documentation must recount . . . the reasons that individual measures were accepted or

rejected." Thus, the 2019 NCP is flawed.

3. The 2019 Draft NCP states in section 3.3.6, "Real Estate Disclosure:"

A real estate disclosure policy would be developed for land uses within the 65 dB DNL contour, and implemented through revisions to zoning ordinances (2008 ROA Measure 15). Status: Not implemented. The Airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour but will be working with the City of South Burlington and the City of Winooski in that regard.

The 2008 NCP states: "A real estate disclosure policy would be developed for land uses within the 65 dB DNL contour, and implemented through revisions to zoning ordinances (ROA Section II.C.15). Status: Not implemented. The Airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour but will be working with the City of South Burlington and the City of Winooski in that regard."

The 2008 ROA measure 15 is nearly identical: "A real estate disclosure policy would be developed for land uses within the 65 dB DNL contour, and implemented through revisions to zoning ordinances. Status: Not implemented. The Airport has not actively encouraged the use of Real Estate Disclosures for properties within the 65 dB DNL contour but will be working with the City of South Burlington and the City of Winooski in that regard."

But the 2019 NCP provides words that do not amount to reasons for failure to implement the real estate disclosure policy. No reason that 2008 ROA measure 15 was not implemented by 2019 is given in the 2019 NCP. As stated above, "The NCP documentation must recount . . . the reasons that individual measures were accepted or rejected." Thus, the 2019 NCP is flawed.

Please revise the 2019 NCP to provide the missing information and explanations in full. Here is my comment regarding the above facts:

While Logan Airport in Boston and Bradley Airport in Connecticut both applied for and received FAA grants for noise monitoring and tracking, and while the FAA regional director, Richard Doucette, told me that Burlington would also be able to apply for such FAA grants to implement noise monitoring a tracking, the Burlington Airport never applied even though doing so was included in the 2008 NCP.

Absent a full and clear explanation of why Burlington failed to apply for the available FAA noise monitoring and tracking grants for these past 11 years, notwithstanding the extreme noise of the F-16 afterburner and the even louder F-35, the public is entitled to conclude that the Mayor of the City of Burlington, the city's Airport Director, and the Airport Commission do not want the public to know the actual noise received by passengers and nearby residents exposed to these military jets. And that these public officials do not want prospective buyers to be told that the property they are considering buying is in an area designated by the Air Force and by the FAA as "unsuitable for residential use."

Such noise monitoring and tracking would likely not be needed if the military jets were properly located away from a populated area. But that explanation is not available here because the runway for the military jets is located in the most densely populated part of Vermont in a city and immediately adjacent 2 other cities and 2 of Vermont's largest towns.

If the city continues to fail to provide an explanation, though expressly required by the FAA, and though officially requested in this public comment, an FAA that is concerned about public safety should reject the flawed draft NCP.

Thank you very much. Best regards, James Marc Leas

- -

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# Public comment: The 2019 Draft NCP is fundamentally flawed and should be rejected by the FAA

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 23, 2019 8:44 AM

Posted in group: BTVsound

44

#### The 2019 Draft NCP is fundamentally flawed and should be rejected by the FAA

The 2019 Draft NCP is fundamentally flawed for failing to provide accurate information about the injury to children and adults from F-35 takeoffs and landings. Without an accurate diagnosis of such injuries, the 2019 Draft NCP fails to provide proper remedies. Those responsible for its preparation should be dismissed from any further input or influence regarding safety, including regarding the Noise Compatibility Program.

#### The NCP states:

These Part 150 guidelines represent compilation of extensive scientific research into noise-related activity interference and attitudinal response. However, reviewers should recognize the highly subjective nature of response to noise, and that special circumstances can affect individuals' tolerance. For example, high non-aircraft noise levels can reduce the significance of aircraft noise, such as in areas exposed to relatively high levels of traffic noise. Alternatively, residents of areas with unusually low background levels may find relatively low levels of aircraft noise annoying.

This is the only statement regarding ill effects of noise in the 2019 Draft NCP. Noteworthy is that this paragraph is identical to a paragraph in the 2008 NCP. The 2019 Draft NCP thus failed to update the supposed "compilation of extensive scientific research" on which it implies that it relied. Nothing in the 2019 Draft NCP demonstrates that a review of the recent scientific literature was conducted. Or even that its authors reviewed the United States Air Force F-35 Final Environmental Impact Statement published in 2013. The 2019 Draft NCP thus reveals itself to be grossly inaccurate.

Let's consider the above quoted paragraph in view of facts presented by the United States Air Force. In the 2013 F-35 Final Environmental Impact Statement, the US Air Force stated that high aircraft noise levels can permanently damage hearing and impair the learning of children. Thus, the Air Force admitted that high aircraft noise levels, such as produced by the F-35, can injure ears and brain. By contrast, the 2019 Draft NCP only recognizes "noise-related activity interference and attitudinal response" as the issue. It says that high aircraft noise is a matter of "individuals' tolerance." It defines the issue as whether high aircraft noise is "annoying." No mention of hearing loss. No mention of degraded reading, memory, attention, or problem solving, as admitted by the US Air Force. No mention of vascular disease as also disclosed by the Air Force.

The NCP is deeply flawed for failing to give the facts beyond the possibility of aircraft noise being annoying. It omits mention of the vital health and safety issues. It also omits mention of the fact that the nearly 3000 homes degraded or demolished because of the F-35 takeoffs are a large part of the area's affordable housing stock and that the impact of the degradation or loss of this housing will have on homelessness and the area's economy. It also omits mention of the "disproportionate impact on low income and minority populations," admitted by the United States Air Force in the 2013 EIS. It omits any discussion of or remedy for such a blatant racist assault by a government agency. It also omits description of or remedy to prevent injury to the people in the most dangerous part of the noise danger zone: the 3,400 civilian airport passengers who fly into or out of the Burlington airport every day, the airline crew, the airport workers, and the pedestrians and bicyclists going to school or commuting on nearby roads.

Regarding the FAA, to its credit, the 2019 Draft NCP acknowledges that "The FAA has ultimate review authority over the NCP submitted under Part 150. The FAA's review of the NCP encompasses the details of technical documentation as well as broader issues of safety and constitutionality of recommended noise abatement alternatives."

Thus, the NCP recognizes that the FAA's review includes "broader issues of safety." With its broad responsibility for safety, the FAA should reject the 2019 Draft NCP for failing to disclose and provide remedies

for the actual safety issues mentioned above, most of them admitted by the United States Air Force itself. The FAA should also reject the 2019 Draft NCP for pretending that the only noise-related issues are "noise-related activity interference and attitudinal response," a matter of "individuals' tolerance," and the noise being merely "annoying."

With regard to the most important mission of the FAA–safety–the agency should recognize that the personnel involved in the 2019 Draft NCP failed to include the safety issues that the Air Force had identified for them 6 years ago. The FAA should highlight the flawed work and provide a severe consequence to protect public safety.

In view of the detailed description of hearing loss and learning impairment given by the US Air Force in its 2013 EIS and omitted from the 2019 Draft NCP, those responsible for the 2019 Draft NCP should be removed from any further responsibility. Funds provided to the contractors should be immediately refunded. No further contracts with any level of government should be provided to these contractors.

The FAA has awesome responsibility for public safety. Any deviation by the FAA from total commitment to safety cannot be tolerated, as evidenced when the FAA delegated software review to Boeing: two crashes of Boeing Max 737 jets. The people who in the 2019 Draft NCP falsely implied that the document included review of scientific studies must not be allowed to continue to command the FAA's Noise Compatibility Program in Burlington. These people cannot be trusted to protect anyone. They must be removed at once from any responsibility regarding public safety. The effects of high aircraft noise levels on children and adults cannot be left in the hands of people who failed to recognize the injuries that had been admitted by the US Air Force. They cannot be left in charge of providing remedies to prevent injuries to thousands of Vermont children and adults.

Specifically, I request that the FAA announce that it requires that the public officials responsible for preparing or approving this draft NCP for public comment, including the Airport Director, the members of the Airport Commission, the Mayor of Burlington, and the consultants they hired, be dismissed from any further input or influence regarding safety, particularly regarding the Noise Compatibility Program. And that a new NCP be prepared by people with a demonstrated commitment to public safety who will review the latest scientific research on the effects of high aircraft noise levels, including military jets, on children and adults. The 2019 Draft NCP remedies are fundamentally flawed, and it should be rejected by the FAA.

# Public comment: The NCP failed to mention learning impairment of children as described by the World Health Organization

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 24, 2019 6:27 PM

Posted in group: BTVsound

45

2019 Draft NCP public comment—

The NCP failed to mention learning impairment of children, as described by the World Health Organization

Research findings presented in the 2011 World Health Organization (WHO) report, *Burden of disease from environmental noises* are summarized in a graph that indicates that: 20% of children are cognitively impaired when day/night average noise level is between 55 and 65 decibels, 45 to 50% of children are cognitively impaired when day/night average noise level is between 65 and 75 decibels and 70 to 85% of children are cognitively impaired when day/night average noise level is between 75 and 85 decibels (see pages 48 to 52).

Does the City of Burlington acknowledge that the World Health Organization made the above statements in its above-named report?

Does the City agree that the injury to the brains of children described in the WHO report is a problem in addition to the problem of "annoyance" that is already identified as a problem in the 2019 Draft NCP (in fact, the only problem identified in the 2019 Draft NCP)?

Does the City of Burlington have any basis to dispute the above statements by the WHO?

If the City of Burlington disputes any of the WHO statements, does the City of Burlington have in its possession any scientific evidence supporting its position?

If the City of Burlington disputes any of the WHO statements, will the City present the scientific evidence supporting its disagreement in its response?

If the City has no basis to disagree with the WHO, will the City include the statements by the WHO in the 2019 Draft NCP in order to better identify the problem for children of high aircraft noise levels in a city location?

Will the City state the number of children anticipated to have learning impaired or brain development injured by the F-35 basing at the Burlington airport in the densely populated area?

If the percentages given by the WHO are correct, how many Vermont children will be injured with cognitive impairment by the high aircraft noise anticipated by the City?

Will the 2019 Draft NCP be modified to add consideration of the Air Force EIS and WHO findings? Will the 2019 Draft NCP base some of its action items on these findings?

Will the 2019 Draft NCP be modified to include consideration of more up to date research findings about the effect of high noise levels on children?

In view of the information provided by the US Air Force and the WHO, how does the operator of the airport, which is the City of Burlington, respond to the question, would the injury to the cognitive development of children be knowing, willful, or intentional if the City allows its tenant, the Vermont Air National Guard, a Vermont state agency, to operate F-35 jets at its airport in a densely populated area? If the answer to this question is no, what is the evidence?

Thank you very much.

Best regards,

James Marc Leas

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# Public comment: The NCP failed to mention learning impairment of children as described by the US Air Force

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 24, 2019 5:04 PM

Posted in group: BTVsound

46

2019 Draft Noise Compatibility Program (NCP) public comment—

The NCP failed to mention learning impairment of children, as described by the United States Air Force

In <u>Volume II of the 2013 United States Air Force F-35 Environmental Impact Statement</u> (EIS) the United States Air Force admitted that high aircraft noise levels can impair the cognitive development of children. The Air Force EIS states that "tasks involving central processing and language comprehension (such as reading, attention, problem solving, and memory) appear to be the most affected by noise."

The Air Force describes two separate ways children's learning is degraded: (1) chronic direct blasting of ears and brains of children with the high aircraft noise over homes and schools thousands of times a year; and (2) multiple daily classroom speech interruptions in their schools.

In Volume I of that EIS the US Air Force specifically named 7 schools near the Burlington airport that will be hit with the blasting noise of F-35 takeoffs and landings. The Air Force even said how many times per hour children in each of these schools will have their classroom speech interrupted. In Volume I of the EIS, the Air Force says 6,663 people live in 2,963 homes in the 65 decibel day night average noise level (DNL) danger zone. In Volume I of the EIS, the Air Force provides numbers showing that the F-35 jets based at the Burlington airport will take off 2,249 times per year, blasting homes and schools adjacent the runway and in the flight path. The F-35 will land at the airport an equal number of times each year and will do "pattern work in the vicinity of the airport" 987 times each year. Thus, Volume I of the Air Force EIS admits the F-35 will be direct blasting thousands of families in a densely populated area thousands of times each year.

In the 2019 Draft NCP and NEM the City of Burlington admits that that the positioning of F-35 jets in the Chamberlin School neighborhood of South Burlington is so close to densely populated areas as to put approximately 2,627 residential units within the anticipated F-35 65 and 70 DNL contours. But in the 2019 Draft NCP the City of Burlington does not state how many residential units are in a contour that exceeds 75 decibels DNL. Nor does the City's 2019 Draft NCP state how many adults and children are living in those 2,627 homes or in higher noise-level homes. Nor does the City's 2019 Draft NCP state how many adults and children will be located on airport grounds as airport passengers. Thus, the magnitude of the problem for children and adults is not provided by the City's 2019 Draft NCP. This deficiency in identifying the problem for children and adults makes impossible determining whether the solutions offered in the in the 2019 Draft NCP are adequate.

Until adequate protective measures are in place, does the City of Burlington disagree with any of the following statements of the problem for children provided by the United States Air Force in Volume II of the US Air Force EIS?:

Research on the impacts of aircraft noise, and noise in general, on the cognitive abilities of school-aged children has received more attention in the last 20 years. Several studies suggest that aircraft noise can affect the academic performance of schoolchildren. Although many factors could contribute to learning deficits in school-aged children (e.g., socioeconomic level, home environment, diet, sleep patterns), evidence exists that suggests that **chronic exposure to high aircraft noise levels can impair learning**. Specifically, elementary school children attending schools near New York City's two airports demonstrated **lower reading scores** than children living farther away from the flight paths (Green *et al.* 1982). Researchers have found that tasks involving central processing and language comprehension (such as **reading, attention, problem solving, and memory**) appear to be the most affected by noise (Evans and Lepore 1993, Hygge 1994, and Evans *et al.* 1998). It has been demonstrated that chronic exposure of first- and second-grade children to aircraft noise can result in **reading deficits and impaired speech perception** (i.e., the ability to hear common, low-frequency [vowel] sounds but not high frequencies [consonants] in speech) (Evans and Maxwell 1997).

The Evans and Maxwell (1997) study found that chronic exposure to aircraft noise resulted in reading deficits and impaired speech perception for first- and second-grade children. Other studies found that children residing near the Los Angeles International Airport had more **difficulty solving cognitive problems** and did not perform as well as children from quieter schools in **puzzle-solving and attentiveness** (Bronzaft 1997, Cohen *et al.* 1980). Children attending elementary schools in high aircraft noise areas near London's Heathrow Airport demonstrated **poorer reading comprehension** and **selective cognitive impairments** (Haines *et al.* 2001a,b).

Similarly, a 1994 study found that students exposed to aircraft noise of approximately 76 dBA scored **20 percent lower on recall ability tests** than students exposed to ambient noise of 42-44 dBA (Hygge 1994). Similar studies involving the testing of **attention**, **memory**, **and reading comprehension** of school children located near airports showed that their tests exhibited reduced performance results compared to those of similar groups of children who were located in quieter environments (Evans *et al.* 1998, Haines *et al.* 1998). The Haines and Stansfeld study indicated that there may be **some long-term effects** associated with exposure, as one-year follow-up testing still demonstrated lowered scores for children in higher noise schools (Haines *et al.* 2001a,b). In contrast, a 2002 study found that although **children living near the old Munich airport scored lower in standardized reading and long-term memory tests than a control group, their performance on the same tests were <b>equal** to that of the control group **once the airport was closed** (Hygge *et al.* 2002).

Finally, although it is recognized that there are many factors that could contribute to learning deficits in schoolaged children, there is increasing awareness that chronic exposure to high aircraft noise levels may impair learning. This awareness has led the WHO 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 (WHO 2000, NATO 2000).

Does the City of Burlington acknowledge that the United States Air Force made the above statements in Volume II of the United States Air Force EIS?

If the city does not dispute any of the Air Force statements, will the City include these statements or this problem in the 2019 Draft NCP in order to better identify the problem of high aircraft noise levels in a city location, including the injury to the brain development of children, a problem that is in addition to the problem of "annoyance" that is already identified as a problem in the 2019 Draft NCP (in fact, annoyance is the only problem identified in the 2019 Draft NCP—a severe defect of that document).

If the City of Burlington disputes any of the above statements of the United States Air Force made in Volume II of the United States Air Force EIS, does the City of Burlington have in its possession any scientific evidence to support its position or to contradict the US Air Force?

If the City of Burlington disputes any of the above statements of the United States Air Force made in Volume II of the United States Air Force EIS, will the City present the scientific evidence supporting its disagreement in its response?

How many children attend each school where classroom speech is expected to be interrupted at least once per school day by the F-35?

- (a) How many adults and (b) how many children are anticipated to be living within the 65 to 70 decibel DNL noise contour when the 18 F-35 jets are taking off and landing at BTV?
- (a) How many adults and (b) how many children are anticipated to be living within the 70 to 75 decibel DNL noise contour when the 18 F-35 jets are taking off and landing at BTV?
- (a) How many adults and (b) how many children are anticipated to be living within the 75 to 80 decibel DNL noise contour when the 18 F-35 jets are taking off and landing at BTV?

Assuming a young child plays outdoors every day within the day night average noise danger zone of 65 decibels, including during all the times the F-35 takes off, how many times per year will that child be struck by the noise of the F-35?

What will be the peak sound level that child will be exposed to if the child is located at the 65 decibel DNL noise contour line?

What will be the peak sound level that child will be exposed to if the child is located at the 70 decibel DNL noise contour line?

What will be the peak sound level that child will be exposed to if the child is located at the 75 decibel DNL noise contour line?

What will be the peak sound level that child will be exposed to if the child is located at the 80 decibel DNL noise contour line as a passenger on airport property?

What will be the peak sound level that child will be exposed to if the child is located at the 85 decibel DNL noise contour line as a passenger on airport property?

How will the City protect the children through the NCP program when they are playing outdoors or walking to or from

school? How will the City protect the children through the NCP program when they are at recess at the Chamberlin School?

How will the City protect children from multiple classroom speech interruptions each day they are in school through the NCP program? What actions will be taken to protect children from classroom speech interruption?

How will the NCP program protect children from the learning impairment described by the United States Air Force?

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Thank you very much.

Best regards,

James Marc Leas

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## Public comment: Permanent hearing damage, as described by the US Air Force and by the WHO

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 24, 2019 9:41 PM

Posted in group: BTVsound

45

2019 Draft Noise Compatibility Program (NCP) public comment—

#### Permanent hearing damage, as described by the US Air Force and by the WHO

In a presentation to train health care professionals entitled "Children and Noise," (go to the 18<sup>th</sup> slide) the World Health Organization (WHO) included microscope photographs showing normal and noise-damaged hair cells of the cochlea. Cochlea hair cells are the hearing sensors in the ear that vibrate with sounds. The hair cell vibration is converted to an electrical signal that passes through nerves to the brain. When the hair cells are damaged sufficiently, the hearing loss is permanent. The visible noise damage to the hair cells in the photograph explains better than any words how exposure to high noise levels, such as produced by F-35 jets, causes hearing loss.

In Volume II of the US Air Force Environmental Impact Statement (EIS) the Air Force describes some peak noise levels:

For comparison purposes, normal conversation (at a distance of 3 feet) is approximately 60 dB, loud speech is approximately 70 dB, and the sound of a train approaching a subway platform is approximately 90 dB. At approximately 120 dB, sound can be intense enough to induce pain, while **at 130 dB, immediate and permanent hearing damage can result** (National Park Service [NPS] 1997). (page C4 in Volume II of the EIS).

Thus, the Air Force admits that a **single exposure** to sound with a peak A weighted noise level of 130 dB can cause **immediate and permanent hearing damage**.

From the noise modeling program used in the NCP and NEM can the peak noise level at various locations be extracted?

If so, does the F-35 reach this 130 decibel level anywhere on airport grounds where civilians may be located when the F-35 takes off with afterburner? On streets adjacent the airport? Under normal military power?

Based on the recommendations included in the 2008, but not implemented, and 2019 NCP will the airport commit to apply for an FAA grant to implement noise monitoring and tracking? Will the grant request include noise monitoring and tracking so peak noise data is available online in real time at various locations on airport grounds and in each of the neighboring cities and towns at various distances? And will the data be stored for further review?

Later in Volume II of the EIS the Air Force further admits:

In another study of 115 test subjects between 18 and 50 years old in 1999, temporary threshold shifts were measured after laboratory exposure to military low-altitude flight noise (Ising et al. 1999). According to the authors, the results indicate that **repeated exposure** to military low-altitude flight noise with **Lmax greater than 114 dB**, especially if the noise level increases rapidly, may have **the potential to cause noise induced hearing loss in humans**. (page C25 in Volume II of the EIS).

Thus, the Air Force admits that **repeated** exposure to military jets at low altitude with a peak A weighted maximum sound level of 114 dB can cause **permanent hearing damage**.

In Volume I of the EIS, the Air Force admits that on takeoff under military power at 1000 feet elevation a person on the ground below will be exposed to a peak A weighted sound level of 115 dB. Thus, the Air Force expressly admits in Volume I that people may be exposed to a bit more than the sound level that the Air Force says in Volume II can cause permanent hearing damage from repeated exposure. And in Volume I the Air Force further admitted that people will be repeatedly exposed to F-35 takeoffs 2,249 every year. Thus, civilians may receive thousands of exposures to the hearing damaging F-35 noise.

But the 2019 Draft NCP does not mention hearing loss. The only adverse effect mentioned in the 2019 Draft NCP is annoyance. Thus, the 2019 Draft NCP avoids mention of injury to civilians, including injury to bodily organs.

Why does the 2019 Draft NCP omit mention of hearing loss as a problem to be solved with the noise compatibility program?

Can peak noise level be extracted from the noise modelling computer program used to calculate average noise level? If so, what is the peak noise level anywhere on or off airport grounds where civilians may be located when the F-35 takes off with afterburner?

The F-35 emits a large part of its sound at low frequency. Will the NCP state whether the grant application will include a request fort equipment that measures and records the low frequency sound (infrasound)?

Will the 2019 NCP include citations to scientific studies of how low frequency sound penetrates walls and insulation and can injure children and adults even in well insulated homes and schools?

Will the 2019 NCP include measures to protect children and adults from the low frequency sound?

Will the City include description of hearing loss and include photographs of noise induced hearing damage to cochlear hair cells to highlight the problem of permanent noise induced hearing loss that was described by the Air Force and by the World Health Organization to show that the problem is much more than mere annoyance and includes injury to a bodily organ? If not, why not?

Recognizing that the only mitigation that works is adequate separation between F-35 jets and populated areas, will the City of Burlington continue to allow its airport in the midst of a densely populated area to continue to be used by F-35 jets? Will the City of Burlington refuse to allow basing of F-35 jets at its City-owned airport? Will the City prohibit take off and land so close to children that the children are exposed to such high noise levels as to damage their hearing and impair their learning? Will the City advocate for relocation of thousands of families and demolition of thousands of homes? Will the City continue to put forth an NCP that omits mention of the hearing loss problem and simply allow the hearing of Vermont children and adults to be injured?

Thank you very much.

Best regards,

James Marc Leas

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# Public comment: On notice from the VA: The City of Burlington is bringing mass hearing loss to Vermonters

jimmy vermontpatentlawyer.com <jimmy@vermontpatentlawyer.com>

Nov 25, 2019 11:34 AM

Posted in group: BTVsound

48

2019 Draft Noise Compatibility Program (NCP) public comment—

#### On notice from the VA: The City of Burlington is bringing mass hearing loss to Vermonters

In view of the facts below from the Veterans Administration (VA), what will the City of Burlington do to protect airport passengers and nearby residents from the hearing loss the Air Force says they can get from repeated exposure to F-35 jet noise?

Here is what the VA says about hearing loss among soldiers, airmen, sailors, and marines:

"Hearing problems—including tinnitus, which is a ringing, buzzing, or other type of noise that originates in the head—are by far the most prevalent service-connected disability among American Veterans."

"As of the close of fiscal year 2014, more than 933,000 Veterans were receiving disability compensation for hearing loss, and nearly 1.3 million received compensation for tinnitus."

Thus, the US military has failed to adequately protect even its own members from hearing loss.

Fortunately for Vermont airmen, they are required to wear two layers of hearing protection. Not so civilians that the Air Force admits are now being hit with similar levels of hearing-damaging F-35 noise as hearing-protection-wearing airmen because the City of Burlington is allowing F-35 basing at its civilian airport located in the densely populated Chamberlin School neighborhood of the City of South Burlington. By basing the F-35 jets in a city, where few civilians routinely wear the approved hearing protection that airmen wear, the City of Burlington is bringing mass hearing loss to airport passengers and to Vermonters in five of Vermont's largest cities and towns that surround the runway: South Burlington, Winooski, Burlington, Williston, and Colchester.

The Air Force says in Volume II of the Environmental Impact Statement that repeated exposure to noise at the level of the F-35 on takeoff in ordinary military power (115 decibels) can cause permanent hearing loss. The Air Force also says in that volume of the EIS that the afterburner is even louder, and even a single exposure to noise at 130 decibels can cause immediate and permanent hearing loss.

By allowing basing of F-35 jets at a civilian airport in a city the City of Burlington is effectively targeting:

- 3,400 airport passengers each day: the Air Force says the F-35 noise is loudest on airport grounds. During moments they are outside, on either side of the terminal buildings, nothing protects passengers from the hearing damaging F-35 noise on takeoff. In the airport parking garage the reverberating F-35 noise is especially ear damaging.
- Residents, bicyclists, walkers, and motorists: The Air Force says 6,663 people live in the ovalshaped noise danger zone identified by the Air Force. Most in danger are children as they play outdoors or walk to school; walkers, bikers, and motorists, as they pass near the airport, nearby gardeners and dog walkers, and the 2,963 families identified by the Air Force when they are inside their homes with their windows open. The 2019 NCP and Noise Exposure Map confirmed a similar number of families in the noise danger zone.

The 2019 Draft NCP is fundamentally flawed for:

- Failing to mention the mass permanent hearing loss the City of Burlington is inflicting on thousands of people by allowing the basing of the F-35 jets at a civilian airport in a densely populated area.
- Failing to mention or provide any protection to airport passengers, nearby residents, and commuters as they work, travel, or play outdoors.

- Failing to mention the need for and the posting of warnings to airport passengers during the moments they are outdoors on airport grounds.
- Failing to mention any special need to protect children who live or go to school nearby when they are outdoors.
- Failing to request funding for hearing aids and hearing surgery for thousands of people who will suffer permanent hearing damage from repeated exposure to the F-35 noise.

The FAA's primary job is safety. The City of Burlington is the owner of the airport and is responsible for the injuries if it continues to allow its tenant to base F-35 jets at the city-owned airport. Its tenant is a state agency, the Vermont National Guard. If the City of Burlington continues to allow the basing of F-35 jets at its Burlington Airport, to meet its safety responsibility the FAA must require the City of Burlington to provide effective measures to protect the hearing of airport passengers when they are outside on airport grounds or require closure of the airport to civilians. The FAA must also require the City of Burlington to provide effective measures to protect the hearing of children and adults when they are outside and when windows are open or require demolition of the 2,963 homes and a cordoning off of streets near the airport to walkers, bicyclists and motorists. No half measures that leave civilians vulnerable to injury to bodily organs, including hearing, should be approved by the FAA.

Thanks very much for considering this.

James Marc Leas

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### Comments on noise from F35 war planes

**Melinda Lee** <nmlee50@gmail.com>
Posted in group: **BTVsound** 

49

Nov 25, 2019 4:10 PM

Dear BTV sound,

I have found the sound of the F35 planes very disturbing. When they take off - and I live on East Avenue in Burlington - the sound makes it difficult to converse with other people and I can't hear the sound from the TV or computer. I am wondering if I will have to purchase soundproofing ear phones to wear, in order to walk safely in the streets of Burlington, not causing damage to my hearing.

Most particularly, I am concerned about the effect on children's hearing - that the sound of 20 F35s taking off several times a week, will damage them and make learning difficult. I fear for the health of the children who go to Chamberlin school, close to the airport and my grandchildren who are growing up in South Burlington. I am also concerned about the effect on property values and the quality of living in Burlington. I already know of one couple who has moved out of the area due to the arrival of F35s and their noise and nuclear capability.

Thank you for receiving my comments.

Sincerely,

Melinda Lee

Burlington resident since 1982.

## **Noise Mitigation Plan**

Anne Linton <annelinton@mac.com>

50

Oct 28, 2019 12:52 PM

Posted in group: BTVsound

I am writing in opposition to the F35s being brought to Burlington, Vermont.

Where is the sense in bringing the F35 jets here, then spending millions to mitigate the noise polution with soundproofing and assistance selling homes. These jets should have been located at Hill Air Force base, as the Air Force originally recommended.

I am dismayed at our political leadership, (Leahy, Sanders, Welch) who have approved this move. There's been some underhanded maneuvering and I am disappointed that our representatives are all going along with Senator Leahy's strong-arming.

Disagreement with this choice is not connected to patriotism. It's common sense. Who puts jets in place flying directly over a vulnerable population (or ANY population, really). Keep jets flying in areas that are set up for that. Not here.

Sincerely, Anne

Anne Linton Elston | MacWorks Graphic Design and Pre-press Production annelinton@mac.com 802-655-0942

## noise monitoring

Lloyd Robin <robinlloyd8@gmail.com>

51

Nov 1, 2019 10:19 PM

Posted in group: BTVsound

Hello Mr. Richards:

To resolve the question about the impact of F35 noise upon takeoff and landing, on the Winooski and Williston communities, I request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.

Please advise me when this will be implemented.

Sincerely,

Robin Lloyd 802-355-3256

## To the Noise Compatiblity Program:

Lloyd Robin <robinlloyd8@gmail.com>

52

Nov 25, 2019 2:41 PM

Posted in group: BTVsound

To the Noise Compatiblity Program:

I am an elderly person not in the noise danger zone but not far from the Burlington International Airport.

I have heard the two F35s pass overhead. They have caused me to tremble in my boots as their vibrations seem to take over my body.

As a gardener, in my retirement, I am fearful of even planting a garden next spring when the full component of 20 F35 bombers will be

occupying our sound and psychic space day in and day out.

These bombers are an assault against us as citizens.

Shame on our elected officers for permitting this violation to happen to us.

I urge you to cancel the F35 basing in our city and instead provide a mission for the Guard that is compatible with its location

in a densely populated area.

Robin Lloyd Maple Street. Burlington 802-355-3256

## **Burlington VT F-35 Sound Comment**

**Jim Lockridge** <jim@bigheavyworld.com> Posted in group: **BTVsound** 

53

Nov 24, 2019 10:51 AM

Hello —

I'm writing to provide a comment about F-35 noise in Burlington, VT.

I've been surprised at how intrusive and uncomfortably loud the F-35s are. Their sound rumbles through the buildings I've been in and has interrupted business and family time, with conversations switching their topics into acknowledgements of the volume of the jets.

Thanks for welcoming public comment.

--

#### **JAMES LOCKRIDGE**

Executive Director, Big Heavy World | WOMM-LP 105.9FM The Radiator

Chittenden Zone Agent, Vermont Creative Network

Brigade Co-Captain, Code for BTV

## BTVsound website contact us "Noise too much for my daughter"

BTVsound Website <cmurphy@jonespayne.com>

54

Nov 20, 2019 11:14 AM

Posted in group: BTVsound

From: Semir Mahmutovic <malimahmutovic@gmail.com>

Subject: Noise too much for my daughter

Message Body:

Hi my name is Semir. I live at 504 North Brownell rd Williston. F35 goes over my house The noise is so loud that my daughter gets scared and starts to cry every time. It wasn't like this with the old plains. Im really not sure what to do. We would love to get the house sound proofed Can someone please reach out to me. My number is (802)249-4766

Thank you so much

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

#### Noise from the F-35s

Charlie Messing <a href="mailto:charliemessing@gmail.com">charliemessing@gmail.com</a>

55

Nov 24, 2019 10:02 PM

Posted in group: BTVsound

The noise-level of the F-35s is unsuitable for a densely-populated environment. It is so loud with its afterburners that one exposure to this level of sound can damage your hearing. If there are 20 of these jets at the Burlington Airport, they'll be harming the health of thousands of people in three towns: South Burlington, Winooski, and Colchester.

I used to live in Colchester, and the F-18s were quite loud, passing at 1000 ft. above. The F-35s, however, make four times as much noise, and also generate low frequencies which are harmful to the body, and impair learning. If you were exposed to 130 or 140 db personally, you would know exactly what I mean. It's going to make a well-populated area uninhabitable – not safely habitable, that is.

The noise at the airport, and the noise in the skies, must be measured to see if the National Guard is actually harming the populace. You will never stop hearing complaints, because this is a situation that can never stand as it is. Those who made the decision to base the plane here did not have our interests in mind.

Please do what you can to keep us safe. Measure the noise levels, and act upon the results. We need to keep all our people safe, and the F-35 is a true threat. It belongs in another place.

Thank you for taking our input and have a good holiday,

Charlie Messing Burlington, VT

#### NCP comment

Cara Montague <stringbean75@gmail.com>

56

Nov 22, 2019 9:40 AM

Posted in group: BTVsound

This is my public comment to the Draft Noise Compatibility Program prepared by the Jones Payne Group.

I have great concern that the Noise Mitigation Program will not provide adequate protection to children, grown ups or animals who live in the 65 db zone and higher. The time frame for grant applications and awards leaves many hundreds of people vulnerable for years while they are waiting for work to be done. There is also no planned protection for those of us who are outside of our homes when the planes fly overhead. I work as a gardener, often in Williston, Winooski and South Burlington, and will be exposed routinely to the sound of the F-35s. It seems that if Burlington wants to preserve low income housing in the area they need to push harder to get the F-35s out of the airport. The only way to keep us safe from the noise of the planes is to remove them.

I would also like there to be continued on-site monitoring of the sound levels of the planes, especially at the Chamberlin School in South Burlington and the Winooski School in Winooski.

Sincerely,

Cara Montague 68 West St Winooski, VT

#### F-35

Andrea <andrea\_um03@yahoo.com>

57

Nov 24, 2019 6:29 PM

Posted in group: BTVsound

I wanted to wait until the F-35s were here to judge. Well, now that they've been night-flying I certainly can! They F-35s are much louder than the F-16s and absolutely have an impact. I was home this week in the evening when they buzzed past my house. The walls shook, the sound penetrated my home even with all windows and doors locked up tight. This was never the case with the F-16s. Even my dog was affected- he never notices the commercial planes, but put his ears all the ways back during the F-35 flights. I'm not at home during the day, but I can now imagine what it is like for people who are. These machines should not be in populated areas. They should not be in an area like Chittenden County where housing is already hard to find. I've owned my home on Forest St for 4 years and the occasional plane doesn't bother me. The F-35s certainly do.

Andrea Nicoletta

# Fwd: Public Comment to Draft NCP and the Burlington Proposal to Modify the Existing NCP

Novak <kavon95@gmavt.net>

Posted in group: BTVsound

58

Nov 23, 2019 2:32 PM

Dear Sir:

My thoughts on the modification of the current Noise Compatibility Program by the City of Burlington follow.

1. The 2019 Draft NCP states in section 3.2.1, "Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise:"

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unanticipated changes in the level of airport activity, and non-compliance with the NCP. (2008 ROA Measure 8). Status: Not fully implemented. The City of Burlington, Vermont updated the BTV NEM in 1997, 2006 and 2015. This documentation represents the second NCP update. The City updated the NCP in 2008. A standing Sound Committee meets quarterly throughout the year.

However, the 2008 NCP and the 2008 ROA measure 8 both state,"...This measure also included the recommendation of the Technical Advisory Committee as a Noise Abatement Committee and purchase of a permanent noise monitoring system. Status: Not implemented."

- a) No explanation is given in the 2019 Draft NCP as to why mention is omitted in the 2019 Draft NCP of the recommendation of the Technical Advisory Committee to purchase a permanent noise monitoring system--even though this was expressly included in the 2008 ROA.
- b) Nor is any reason given as to why this part of the 2008 ROA measure 8 was not implemented or not fully implemented by 2019 in the 2019 NCP. As stated above, "The NCP documentation must recount...the reasons that individual measures were accepted or rejected." The 2019 NCP provides words that do not amount to reasons for failure to implement.

For both of the above reasons, the 2019 NCP is flawed.

The 2019 Draft NCP also lacks details on how many monitors are required, where they will be placed, how often readings will be recorded and public accessibility to all data. The cities/towns of South Burlington, Winooski, Williston and Richmond must

all be included in the placement and reporting details. I have included Richmond based on a report from a resident that she experienced a substantial vibration while taking a shower when an F-35 passed over her house. It is in the public interest that such details be included. Additionally, there is a need for stating who or what part of the Government is responsible for implementation of all the tasks. It is in the best interest of the public that the F-35 flights be curtailed until the sound monitoring program has been fully implemented.

- 2. The NCP focuses on the residential population but omits addressing the 3,400 passengers a day who enter or leave the airport grounds, along with the employees associated with the commercial activities/operations at the airport. This is a major omission. I request that the NCP address F-35 noise on the airport grounds and immediately implement both warning and protective actions as civilians walk to and from their ground transportation and between their aircraft and the terminal building.
- 3. The NCP lists the substantial expenditures that are expected in order to implement some of the actions reported in the Draft. I request that wording be included that would request a much more compatible location for basing the F-35 sufficiently removed from populated areas so that no one who is living or going to school in the 1-mile wide and 6-mile long oval shaped area identified by the Air Force can be injured by routine F-35 operation.

I will appreciate receiving a confirmation of receipt of my comments and a statement on what recommendations will be included in the revised NCP.

Thank you for reading my thoughts.

Karl J. Novak

Hinesburg, Vermont

#### NOISE BEYOND REALITY

obrienrIty < obrienrIty@aol.com>

59

Nov 25, 2019 4:05 PM

Posted in group: BTVsound

THE NOISE AND VIBRATION GENERATED BY THE F 35 IS BEYOND MY COMPREHENSION. IT IS AN ASSULT ON MY PHYSICAL AND MENTAL SENSORY RECEPTORS! THIS WEAPON, CREATES A NOISE THAT SHAKES YOU TO YOUR CORE.

The F 35 weapon does not belong in the most populated urban community in our state. **The noise is beyond anything a civilian population should be subjected to.** THE NOISE IS SIMPLY SHOCKING. To base this weapon in this community is nothing short of insanity.

The noise and vibration that is produced by this weapon is an assult on our schools, homes, hospitals, parks and the people in our neighborhoods. Thousands and thousands of families are affected.

There is no where to hide when these weapons are operated on the ground, in a fly by, take off and landing. Our representatives, from the political the military and the defense contractors that perpetuated talking points to diminish the impact this would have on our community, should be ashamed. From the absence of facts concerning health and safety, the noise, the length of the runway and so much more.

We know there are bases all around the country much better suited to house these weapons. THIS MISSION MUST BE ABORTED.

M. O'Brien Taft Corners Williston, VT

#### F-35 sound levels

Lois Price <tooter21@myfairpoint.net>

60

Nov 23, 2019 4:44 PM

Posted in group: BTVsound

I'm concerned about the method used to measure sound levels of the F-35s. Using a day/night average is misleading, as it includes times when the planes are not even flying. The main concern about sound level is the damage that can be done to people's hearing when the planes are operating. This is what should be measured and evaluated.

Lois Price Colchester, VT

#### **Public input**

Sheila Quenneville <sheila3640@aol.com>

61

Nov 18, 2019 8:02 PM

Posted in group: BTVsound

To Whom It May Concern,

I live at 364 White Street, just past Pump Drive. My main concern is for my children in my child care program I've operated for over 30 years. In particular, the concern is when we are playing outside. It can be annoying inside, especially during nap time. Some children, especially toddlers can be scared. I naturally worry about the possibility of negative affects on cognitive development.

Most of the time we don't notice the commercial jets. We certainly notice the helicopters and small aircraft. I have just recently, the past week or so, noticed how much louder the F35s are. Perhaps it is because the leaves have fallen, but it wasn't too bad the first two months.

I hope insulation and better windows could help, but I simply don't know what to do about outside. I have considered asking the Air Guard about issuing me noise canceling headphones I could bring outdoors to use with the children in case the planes took off.

My children are grown and it's just my husband and I. The jets are bearable for us. I personally am more annoyed with airplanes sitting with their engines on the runway as that can keep me awake at night.

Thank you.

Sheila Quenneville Sent from my iPad

#### **Further Comment on NCP Update October 2019**

Joanna Rankin < Joanna. Rankin@uvm.edu>

62

Nov 24, 2019 8:48 PM

Posted in group: BTVsound

In my earlier comment I noted the flagrant inaction on the part of Burlington Airport in obtaining and installing a suitable noise monitoring facility (see below). A noise monitoring facility is a first step toward documenting the actual effects of the F-35 aircraft on the surrounding community and taking informed steps to address them.

Therefore, I demand that the City of Burlington take steps to immediately install and operate such a system that monitors aircraft noise and infrasound on the airport property and in the adjacent communities at appropriate points (e.g. Chamberlin School, downtown Winooski, St. Michael's College, UVM, etc.). I demand that this installation not wait for FAA funding as a part of the NCP because an additional wait of a year or three is far too long and simply intolerable.

It is the basic duty of government to protect its citizens, and so far negligible steps have been taken by the City of Burlington and its airport administration to do so in terms of dangerous sound energy levels from the VTANG F-35s.

Joanna Rankin Dept. of Physics emerita University of Vermont

Especially interesting is Section 4.2 **Noise Monitoring and Flight Track Monitoring.** Noise monitoring is the only means by which we can know just how serious to health the F-35s are. The expected cost is relatively cheap at \$500,000 to \$1,000,000. Installation of this equipment was recommended in earlier NCP drafts as well as the 2012 VT Dept. of Health study. No action has so far been taken despite potential funding from FAA grants. Many completely commercial airports of comparable size to BTV have installed noise monitoring systems (e.g., Westchester County Airport). So there seems no excuse for the inaction here on the part of the City of Burlington and the BTV administration. From the record it appears that these authorities really do not want to know how much noise BTV aircraft are generating. However, it is their duty to protect the public.

#### **Comment on NCP Update October 2019**

Joanna Rankin < Joanna. Rankin@uvm.edu>

Posted in group: BTVsound

63

Nov 24, 2019 7:22 PM

Two F-35 aircraft are now operating at Burlington Airport, and people living in the surrounding area are beginning to experience what it could actually mean were the proposed fleet of 20 to be operated on a daily basis. So far there are only 2-3 F-35s and they do not operate every day—and so far they seem never to have used their afterburners. When they fly, the F-35 noise is deafening, protracted and frightening—and we live just outside of the most severe part of the noise zone. We had become reluctantly used to the VTANG F-16 noise, but the F-35s are \_much\_ worse. They are both louder and their noise is at lower frequencies that include intense, highly disturbing infrasound that cannot be heard but shakes one's body. Even without afterburners the F-35s are unacceptable and incompatible with life in a densely populated urban area.

The draft NCP is shocking to read in terms of its protracted discussion of the at-most partially effective and painfully late-coming measures in consideration. *Maybe the barn door will be closed next year if still standing after the conflagration from which the horses have just escaped!* 

The NCP seriously discusses programs costing 10s or 100s of millions of dollars that would put only bandaids on the exposure of surrounding communities to the invasion of F-35 sound energy. Residences can be insulated, but this does nothing in summer or when people/children work/play outside. Would we really accept the children of Chamberlin School being held captive inside all day in all weather? And what of their coming and going? Can we accept BTV passengers risking hearing loss while parking their cars? Can we accept a cessation of bicycle traffic in areas around the airport because riders need hearing to navigate in traffic?

Especially interesting is Section 4.2 **Noise Monitoring and Flight Track Monitoring.** Noise monitoring is the only means by which we can know just how serious to health the F-35s are. The expected cost is relatively cheap at \$500,000 to \$1,000,000. Installation of this equipment was recommended in earlier NCP drafts as well as the 2012 VT Dept. of Health study. No action has so far been taken despite potential funding from FAA grants. Many completely commercial airports of comparable size to BTV have installed noise monitoring systems (e.g., Westchester County Airport). So there seems no excuse for the inaction here on the part of the City of Burlington and the BTV administration. From the record it appears that these authorities really do not want to know how much noise BTV aircraft are generating. However, it is their duty to protect the public.

Exposure to intense sound energy is dangerous to health and civil society. Any number of references attest to this including a 2012 study by the VT Dept. of Health, as well as studies by the CDC and the Air Force itself. The theoretical noise model behind the NEMs in the NCP are flawed and completely inadequate both because they deal only with average sound power levels not the intervals of most intense exposure and because the infrasound is not included. A single exposure to peak F-35 noise can permanently degrade hearing or divert attention leading to serious accidents. The NCP does not consider the infrasound component of the F-35 sound energy below the 20-Hz threshold of hearing that is known to compromise attention and learning ability in children and cause increased blood pressure and insomnia

in adults.

Finally, I strongly object to the current deadline for submitting comments on this current NCP. We surely now know that the F-35s are terrible, but we have not yet experienced just how terrible they could be. So far only a small part of the fleet has arrived, and so far their flights have been irregular. So far, there has been no use of the F-35 afterburners. How can it be that we are contained to comment on the NCP at a time when we are experiencing only a terrible "F-35 lite"? Were an entire fleet of 20 based at BTV and flying, the utter inadequacies of the NCP would be even more apparent to a much larger part of the Chittenden County population.

In summary, sound energy is only one of the reasons that the F-35s are unacceptable at Burlington Airport: others are pollution, cost to taxpayers, crash risk, fuel dumping, environmental degradation, nuclear capability. In short, the F-35 deployment at BTV should be cancelled immediately!

Joanna Rankin Prof. of Physics, Emerta University of Vermont

#### Airplane noise

Wiley Reading < w.f.reading@gmail.com>

64

Nov 25, 2019 12:29 PM

Posted in group: BTVsound

I'm writing to share my thoughts on the airport noise. I live near the winooski border in Burlington and the planes are incredibly loud. I have hearing loss and am concerned that they will make it worse.

I also work with refugee families, and am heartbroken to see their reactions to having military jets screaming through the sky regularly. This is not a welcoming community for our new neighbors if we activate their PTSD with unnecessary war planes.

Please at least conduct a noise study so we can get out ahead of the public health problems this unwise decision will certainly cause.

Sincerely, Wiley Reading

--

Wiley Reading 802 503 2911

### Why No Grant Money for BTV?

TONY Redington <tonyrvt99@gmail.com>

65

Nov 2, 2019 4:39 PM

Posted in group: BTVsound

#### Good Day Gene:

I understand that the FAA granted funds to Logan airport in Boston and Bradley Airport in Connecticut for noise monitoring and tracking. I also am aware that the 2008 Noise Compatibility Program included a recommendation for the Burlington Airport to do noise monitoring and tracking but the airport did not apply for the available FAA grant even though F-16 jets were taking off with afterburners blasting.

I strongly request that the airport immediately apply for FAA noise monitoring and tracking grants to measure F-35 noise on airport grounds and throughout the residential areas identified by the Air Force and the Noise Compatibility Program.

Please immediately install noise monitor and tracking equipment:

- On airport grounds where passengers, taxi drivers, and airport personnel may be outdoors, especially at several places in the parking garage and outdoors on both sides of the two terminal buildings.
- Outside all the schools and daycare centers in and near the noise danger zone.
- Throughout the Chamberlin School neighborhood of South Burlington.
- · Throughout Winooski.
- Throughout the Chase Street, Grove Street, and Riverside Street neighborhoods of Burlington.
- Throughout the Williston neighborhoods in the flight path.
- · On the St. Michael's College campus in Colchester.

Yours truly,

Tony Redington 20 N. Winooski Ave Apt 2 Burlington

PS My son and daughter-in-law last year moved from Winooski in part because BTV noise.

--

Stop and Re-design a Safe Champlain Parkway! - Sign

Petition: https://www.ipetitions.com/petition/re-design-champlain-parkway-for-safety-

climate Websites:SafeStreetsBurlington.com

https://www.facebook.com/SSBPineStreetNOW/

### Comment on draft NCP update for BTV

John Reuwer < jfreuwer@yahoo.com>

66

Nov 21, 2019 9:40 PM

Posted in group: BTVsound

As someone who commutes on Lime Kiln Road past the airport, I have been subjected to surprise takeoffs by F-16s on numerous occasions in the past. One in August 2018 left me with permanent ringing in my ears. Now I may be subjected to a plane the Air Force says is 18 decibels noisier.

I see nothing in your plans to protect me from further injury, nor to protect thousands of people the FAA says should not live in the 65 DNL zone who are being forced to do so by politicians who don't live near the airport. Expensive insulation that is months to years away from helping is of no use now and in the future will protect no one who wants to enjoy the Vermont outdoors or even leave their windows open.

I ask the city of Burlington and BTV management to remind VTANG that their job is to protect and not injure Vermonters, and they should request a mission that actually does that. If you continue to support the basing of these harmful monstrosities at BTV, at least do something to provide more immediate protection to your citizens.

Some form of warning signal before the F-35s take off, that would alert us to duck and cover our ears would be an inexpensive start. While we don't want a warning siren that would contribute more noise, some sort of bell, beep, or light system sounds like the least expensive solution.

John Reuwer South Burlington

# Request you apply for FAA grant for noise monitoring and tracking system

N. Rice <hope247@sover.net> Posted in group: BTVsound</hope247@sover.net>	67	Nov 3, 2019 10:16 AM
Dear Mr. Richardson,		
As head of the Burlington Airport, would y for a noise monitoring and tracking syster been made twice in recent years, but to n system, so I am wondering what is your a Please explain.	m at Burlington Airport? I understand to avail. My understanding is that ther	that that recommendation has re is FAA funding for such a
We, the public, would like to know what the but also on the people of Winooski and Sonce the full contingent of F-35's are base flown out of Burlington Airport, but this issue	South Burlington, as well as on passer ed at the airport, and afterburners are	ngers at the airport, especially used more. I have in the past
I personally was extremely disappointed to 35's when we know from information in Elairports more suited for such planes as the your fault, but if you care about the health airport due to excessive noise levels, I feel monitoring and tracking system so that we the noise levels are indeed below damaging public to be reassured of that.	nvironmental Impact Statements that nose others are in less populated area in impacts on children and other people of that the least you can do is to apply e will know exactly what the noise level.	there were at least two other us. That part, of course, is not e in the immediate area of the for an FAA grant to get a noise els are. With such a system, if
Will you please apply for an FAA grant for general public (who is also concerned about information available to us?		
Thank you.		
Sincerely,		
Nancy Rice Randolph Center, VT		

Scanned by McAfee and confirmed virus-free.

12/2/2019	Request you apply for FAA grant for noise monitoring and tracking system - Google Groups

#### Concern about the f35s

Jess Yepeth Perla Rubin <yepeth@gmail.com>

68

Nov 25, 2019 4:19 PM

Posted in group: BTVsound

To whom it may concern,

Please do not allow these plans to invade our communuty with their noise, increased traffic and threat of nuclear weapons. This is in the most economically and racially diverse neighborhood so please also prevent this form of environmental racism.

Sincerely Jess Rubin Burlington resident, teacher, scientist, ecological restorationist

# Noise at Burlington, VT airport

reduce at Barmigton, VI amport		
Peter Schubart <pbs@together.net> Posted in group: BTVsound</pbs@together.net>	69	Nov 21, 2019 6:04 PN
Hello,		
Please consider my comments with regard to a	airplane noise at Burlington In	ternational Airport.
Mitigation		
The noise mitigation plan in place is totally insulnternational Airport. The noise will be affecting the civilian basing) by next year, as the mitigation is a graimplemented, with there still being some dispureffectiveness of noise mitigation, the process a impacts of the F-35 jet.	population (per the USAF EIS nt based process that will take te about who will pay for a por	G drafted in connection with the F-35 e many years to be fully rtion of the cost and the overall
Sound Monitoring		
It is a travesty that the monitoring recommende Burlington I want to see that the peak levels o being done at Logan Airport and Bradley Airpo in Burlington, VT ASAP.	of military and civilian airport no	oise monitored are monitored as is
The basing of the F-35 in a densely populated against the local citizenry. The City of Burlingt "economic development," is going against the They don't want to know about the peak noise recommendation.	on, the landlord, in a short sig wishes of the majority of the p	hted and misguided vision of population by supporting the F-35.
Thank you.		
Peter Schubart		

Sent from Mail for Windows 10

#### **Noise**

Daniel Shearer <drshearer@gmail.com>

70

Nov 23, 2019 8:48 PM

Posted in group: BTVsound

During the whole campaign against the F35, I wondered how it could possibly be as loud as they say it is.

It is. The first time I heard it, sitting in my living room with my new three week old, I felt it in my gut and chest. And immediately thought of her, growing up with this 30 second long mechanical thunder. The many times it's happened since, I can't ignore it. It's unnerving. Unsettling. And, I want it to stop.

Thanks.

Daniel Shearer, 27 East Village Dr, Burlington

-

We must get under 350ppm. Learn more: www.350.org

#### Public comment to the 2019 Draft Noise Compatibility Program (NCP):

Ian Stokes <istokes@gmavt.net>

71

Nov 22, 2019 2:02 PM

Posted in group: BTVsound

To whom it may concern:

#### Public comment to the 2019 Draft Noise Compatibility Program (NCP):

This comment was prompted by a recent experience, as well as the prospect of things getting even worse as more F-35 planes replace the F-16s.

I travel by bicycle along Route 2/Williston Road and recently I was subjected to two F-35 planes taking off right above me near the airport. Although I had my hearing aids set to suppress wind noise it was awful and it distracted seriously from my ability to focus and be aware of traffic conditions. People walking or traveling on bikes on roads near the runway really have no ways to protect themselves - we can't even roll up the windows! It would be unsafe (probably illegal?) to wear hearing protection such as ear-muffs when using the highway.

A large recent infrastructure investment on Route 2 was intended to encourage active transportation, and it's working, helping to make Chittenden County a more livable place. However, increased aircraft noise creates safety concerns including distracted attention, and health and hearing damage too. For pedestrians and bicyclist there are really no alternative routes into Burlington from the east. I note that on the '14 CFR Part 150 Noise Compatibility Program Update, Page 15, section 3.3 Land Use Measures' there is no reference to other safety concerns including highway safety or distracted driving.

This issue is compounded by the inappropriate use of the DNL noise measure, designed for very different circumstances (sustained or frequent aircraft noise conditions). In the case of unprotected road users close to the airport, peak noise is the critical measure of damage, rather than average (DNL) noise. Please include peak noise measures in the impact assessments.

The previous military aircraft planes would often take off sequentially in swarms and during heavy commuting hours - is that going to happen as more F35s arrive and thereby make the noise and safety problems even worse?

I refer to:

- Page 14: "Voluntary Minimization of F-16 Multiple Aircraft Flights. Military personnel will schedule as many single-aircraft, as opposed to multiple-aircraft, flights as possible (2008 ROA Measure 6). Status: Not fully implemented. Most VTANG flights require between 2 and 4 aircraft, depending on mission and tactical scenario."
- Page 27: "Both the NEM and the USAF EIS assume the same number of annual operations for the F-35A aircraft."

It seems that the basing decision was woefully ignorant of many real costs and dangers of using BTV for these F-35 planes. It would cost less, be safer and be more compatible with VTANG mission to move the basing to a runway in as low-inhabited area as possible.

I urge the City of Burlington and The Jones Payne Group to examine all aspects of noise compatibility at BTV, including the implications and impact of noise levels on people walking or traveling on bikes on roads near the runway. In this case, peak noise levels should be the primary measure when identifying outdoor noise exposure and its impact on safety of pedestrians, bicyclists and other highway travelers. If it is possible, please recommend changes and actions to make the basing of F-35 planes compatible with living, traveling and working in Chittenden County. Without substantial changes, I can't see how the basing at BTV can be acceptable to people who live, work and travel any place near the airport.

lan Stokes 694 Johnnie Brook Road, Richmond, VT

### BTVsound website contact us "Notifications"

BTVsound Website <cmurphy@jonespayne.com>

72

Oct 25, 2019 11:12 AM

Posted in group: BTVsound

From: Joan Swan <joaneswan@gmail.com>

Subject: Notifications

Message Body:

I own property inside the 2023 70 db DNL zone. Please send me notifications of all future public meetings & presentations. And information on how to submit application to the various voluntary programs, ie, Sound Insulation.

Thank you.

--

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

### BTVsound website contact us "Eligibility Requirements for Sound Insulation"

BTVsound Website <cmurphy@jonespayne.com>

73

Oct 25, 2019 11:44 AM

Posted in group: BTVsound

From: Joan Swan <joaneswan@gmail.com>

Subject: Eligibility Requirements for Sound Insulation

Message Body:

Where to I find the eligibility requirements for the Sound Insulation program?

Thanks you.

--

This e-mail was sent from a contact form on Burlington International Airport Sound Mitigation Program (http://www.btvsound.com)

#### **F35**

Stefani Us <stefani.us@gmail.com>

74

Nov 24, 2019 4:29 PM

Posted in group: BTVsound

I have been complaining for years and now more so and the BTV nore the VTANG will record my complaints so you say NOBODY IS COMPLAINING. THIS WEEK WAS INTOLERABLE. TWO F35 I BELIEVE CAUSed havoc sspontaneiou fires at airport and WCAX tower fire....they will c as use more damage.

BTV is responsible for the damage to my. Health and quality of life any you now have no responsibility for noise mitigation??

We all know the truth about the corruption and the VTANG abuse of power r as pe and pedophiles not dealt with.

I am a senior citizen and have the right to a peaceful quiet life in my home. You have the responsibility to insure the airport is not complicit in corrupt govt activities and putting citizens in danger.

I demand accountability and restitution for damage already inflicted on me when even one of those jets rattles my windows and you think 18 more will not give me a heart attack? Leahy, Sanders and Miro have colluded with the VTANG in misrepresenting reports to allow this to happen...in the end one will crash and noone will live. The runway is not sufficient and p I'll lots not properly trained in software to know what plane is capable of ....you have harmed citizens her by thrusting this hazard on us.

S.Us

**Stefani Us** <stefani.us@gmail.com> Posted in group: **BTVsound** 

75

Nov 25, 2019 9:46 AM

Block 3F software

#### **GREGORY EPLER WOOD**

369 South Union Street Burlington, Vermont 05401 802.860.6473 Greg@BurlingtonTelecom.Net

To: BTV Airport Director Gene Richards

Jones Payne Group 76

November 25, 2019

RE: Public comment to Draft NCP and the Burlington proposal to modify the existing NCP

Dear Mr Richards/Jones Payne Group

In summary, the purpose of my comments below is to point out that Part 150 (14 CFR) of the Federal Aviation Regulations (Airport Noise Compatibility Planning) uses outdated, outmoded and harmful metrics in the way it has asked the City of Burlington (CoB) and the Burlington Airport (BTV) to determine impacts of the noise produced by the F-35s. For that reason, another analysis should be done that takes into account (1) low frequency and infrasound emitted by the F-35 in takeoffs and flyovers, (2) how those sounds are perceived by humans of all ages, and (3) what effects those have on the health of humans, and habitable structures and their contents.

Technically speaking, the scaling algorithm of "A-weighted sound" and the DNL method of averaging sound over time are, in many researchers' opinions, being used to justify and minimize the impacts of noise, as well as to marginalize and negate legitimate complaints and ailments that people within the F-35's noise footprint will be subject to.

Sadly, of those people living, working and going to school in the F-35's flight path, only a small fraction will publicly report their problems; another fraction will only complain privately to friends, family and neighbors; and another fraction will not reveal their concerns to anyone. It is therefore incumbent upon those responsible for these noise impact studies to use "real world" metrics, and reject those currently used in this study – metrics that are under serious scrutiny at many airports around the U.S., and have already been rejected by a growing number of international bodies. BTV and CoB should not hide behind and solely use these current standards, but rather use them as a starting point and exceed them, using the most modern methodologies.

#### **Two Problems Explored**

There are two things working against the public with the criteria used to measure aircraft noise, DNL and A-weighted dB. Let's take DNL first.

This noise criterion only considers noise that each individual aircraft makes and then averages that sound from each singular aircraft over the course of a year. So each aircraft flyover creates a level of measured noise that is then normalized (this means that all planes of a certain manufacture make "X" amount of noise when they pass over) and then the flyover is further calculated into a "total unit of average sound over one second." As you can imagine, when no planes fly overhead, then the aircraft noise is ZERO for that second. So each second is uniquely counted as a plane event or no event and then the noise every second is then averaged across an entire year so it actually takes a lot of planes to meet the threshold. Fewer very loud planes (such as the F35's) would get to the threshold sooner than many quieter planes.

The second problem is the A-weighting method. The instrument specified to measure A-weighted sound DOES NOT measure the noise that people complain about. People complain about the deep rumbling sound that comes from aircraft and this sound is essentially not being measured by the sound meter. That sound being complained about is also capable of traveling through walls, and experiments done by Bryan Johnson in his graduate work at Harvard¹ showed that this sound frequency is typically below 50 Hz.

<sup>1</sup> https://dash.harvard.edu/bitstream/handle/1/37945140/JOHNSON-DOCUMENT-2018.pdf?sequence=1&isAllowed=y

A closer look at how this infrasound is created is necessary. An aircraft engine rotates at a very high frequency and the noise the engine produces from "spinning" attenuates (sound energy is being absorbed) fairly quickly in the open air. So in effect, the public in a wider geographic area would not readily hear this noise that the engines are making because that part of the aircraft noise is pretty much gone by the time its sound reaches the sound meter. The instrumentation that is used the measure the sound is big part of this problem.

The virtual sound meter used here uses the A-weighted scale to determine how much aircraft noise is present, but not all the sound being produced is being measured. In fact, Johnson's work indicated that most of the sound energy being heard or felt by people is not being measured at all. The scaling algorithm of "A-weighted sound" is the reason for this as the scale focuses/records only on the middle of the overall range that people can hear (it is focused at about 1000-6000 Hz and people can hear from 20-20,000 Hz). The rationale given is that people aren't as sensitive to low and high frequency sound so that sound shouldn't be measured the same way as the sound in the middle of the hearing range. The A-weighted scale subtracts out a significant amount of the sound when that sound is outside of the 1000-6000 Hz. ... and the further the frequency departs from this range, the greater the subtraction.

Low frequency (less than 1000 Hz) and infrasound (sound less than 20 Hz) travels great distances in the air and is not readily attenuated by its contact with the air. This sound can readily travel or pass through house walls and causes vibrations that people object to, for example the plates in the cabinet chattering or doors rattling. The extent of the sound subtractions being made as a consequence of the A-weighted scale and comparison of this sound scale to actual aircraft noise is detailed in Figure 25 of Johnson's thesis.

The source of the actual noise that people complain about is created by the displacement of air as it passes around the plane and the air that passes through the turbine and is expelled out the back end. Air from both of these sources is extremely turbulent and as it slows, it collapses and creates the rumbling noise.... This noise travels at frequencies much lower than 1000 Hz and as stated earlier, that type of noise isn't being measured by the sound meters that are used to determine sound impact to the public.

One could almost compare this to a shell game. When complaints come in and sound measurements to reassure the public are made, the sound being generated by the plane is first averaged away over the course of a year so the singular event can't really be "objectionable noise," and therefore not considered as a nuisance, because it would be less than the criteria. So in an area/locale with only a few F-35 flights, the public would have "more capacity" to absorb more average aircraft noise before an "average DNL 65" threshold is met, and therefore considered as objectionable. The second half of the shell game is that the noise people are actually objecting to isn't being measured by the meter (A-weighted sound) to make the determination of public impact.

As all of this is actually quite complex, the public doesn't have a chance, in part because the criteria to determine health or physical impacts doesn't align with what people feel or complain about.

I don't expect the metrics that the FAA or other agencies use to measure noise to be changed any time soon. However, if the leadership of the CoB, BTV and our congressional delegation truly care about children and adults in Chittenden County, they will take the concerns that I have outlined to heart.

Sincerely,

Cc: BTV Management

They EplerWood

Mayor of Burlington Senator Patrick Leahy Senator Bernie Sanders

Representative Peter Welch

### Comment on 2019 Draft Noise Compatibility Program (NCP)

Judith Yarnall <yarnallj@gmail.com>

77

Nov 25, 2019 4:32 PM

Posted in group: BTVsound

To those who run the BTV Airport for the City of Burlington:

As I citizen of Burlington, I want to inquire why changes you said you would make in the NCPs of earlier years have not been implemented. In particular I am concerned with your failure to implement noise monitoring and flight track monitoring. I understand Burlington could have applied for FAA grants to help fund this monitoring, but did not bother to apply.

I am also concerned with failure to implement stated, desired changes to better sound insulate homes.

As Burlington's 2018 referendum indicated, the majority of its citizens did not want F35's to come to Burlington. I suspect, now that these planes' nuclear capability has been disclosed, along with the airport's consequent danger of becoming a nuclear target, the percentage of the city's population opposing the basing would now be considerably higher. We have heard the roar of F35s and feel that our will has been disregarded and that our auditory health is not taken seriously.

Please do what you said you were going to do and implement much-needed changes. Noise monitoring machines and effective sound insulation can no longer be delayed if Burlington is to remain a pleasant place to live.

Sincerely,

Judith Yarnall 131 Cumberland Rd. Burlington

### Noise compatibility

Terry Zigmund <terry@burlingtonglass.net>

78

Nov 25, 2019 10:24 AM

Posted in group: BTVsound

#### Greetings,

I am writing to add my comments to the proposed noise compatibility program. I do not believe that the airport has done a thorough study to determine the impacts of the F-35 on the neighboring communities. The document clearly states that the study is based on noise from the F-16. While I understand that computer models were used to determine anticipated noise levels, as a taxpayer, homeowner and long time resident of Winooski, I do not feel that this is sufficient. I have been inside of my Winooski home (that is just a few blocks outside of the 65dbl zone) when the F-35 has flown over, it still rattles my home and makes conversation inaudible. I have been outside walking when the F-35 has flown over, the noise is deafening. I have been in my Burlington workplace and heard the noise from the jets as they have flown over. It is unconscionable that BTV was selected for this military jet.

My home is excluded from the sound mitigation program based on its location but I will still be subjected to the noise from the military jets. Additionally, sound proofing my home does nothing to help me when I am outside enjoying my yard, if I have my windows open or if I am enjoying a walk in the woods. Please include my comments in the public document.

Respectfully,

Terry Zigmund West St. Winooski



Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2nd Floor Mezzanine
Burlington International Airport

Thank yu	and the second			15.2.2.	
Thanks (	gn not	trouning	down	anymore	home

Please note that this comment card and any information provided on it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.

To submit comments online, please visit www.btvsound.com



Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2<sup>nd</sup> Floor Mezzanine
Burlington International Airport

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Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2<sup>nd</sup> Floor Mezzanine
Burlington International Airport

I / We wish to comment or inquire about the following aspects of this project:

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To submit comments online, please visit www.btvsound.com



Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2<sup>nd</sup> Floor Mezzanine
Burlington International Airport

I / We wish to comment or inquire about the following aspects of this project:

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To submit comments online, please visit www.btvsound.com



Noise Compatibility Program Public Hearing
October 24, 2019 5PM – 7PM

2<sup>nd</sup> Floor Mezzanine
Burlington International Airport

1/We wish to comment or inquire about the following aspects of this project:

Too bad that none of the airport

Officials came to the part of the

meeting that actually had question

for you. Not a democratic meeting
at all.

To submit comments online, please visit www.btvsound.com

#### F-35 sound

amac841@aol.com <amac841@aol.com>

84

Nov 24, 2019 5:29 PM

Posted in group: BTVsound

I think it is non-exsistant and the people that are whining to you about it are anti-military, nothing to do with the noise. Keep up the good work !!!