

**BURLINGTON INTERNATIONAL AIRPORT
SOUND MITIGATION COMMITTEE
MINUTES OF MEETING
September 14, 2016**

DRAFT

ATTENDEES: Nic Longo, BTV (Chair)
Gene Richards, BTV (Vice Chair)
Amanda Hanaway-Corrente, BTV
Kelly Colling, BTV
Eileen Blackwood, City Attorney, Burlington
Gregg Meyer, Assistant City Attorney, Burlington
Erin Desautels, Vermont Small Business Acceleration
Diane Bryant Carter, Jones Payne Group
Ron Bazman, FAA ATCT
Diane Richardson, FAA
Lt. Col. Chris Tumilowicz, Vermont Air National Guard
Col. John Johnston, Vermont Army Guard
Richard Lizzari, Vermont National Guard
Pat Nowak, South Burlington
Helen Riehle, South Burlington City Council
Kevin Dorn, South Burlington City Manager
Paul Connor, City Planner, South Burlington
Carmine Sargent, South Burlington
George Maille, South Burlington
Terry Macaig, Williston Selectboard
Seth Leonard, Mayor, City of Winooski
Ray Coffey, City of Winooski
Seth Bowden, GBIC
Miranda Jonswold, The Other Paper, South Burlington

1.0 CALL TO ORDER

Chairman Nic Longo opened the meeting at 5:03 PM on September 14, 2016. Introductions were done. Mr. Longo explained the goal of the meeting is education on sound versus noise, the operation of the airport, and safety items. There will be presentations on what influences sound at the airport, sound patterns and timing, mitigation and resources available. Discussion will be open and direct. Opinions will be respected. Attendees are asked to write down and submit any questions not addressed at the meeting. The information will be compiled in a document for future reference. The committee will meet quarterly or more frequently if necessary to draft a sound mitigation plan that will benefit all.

2.0 PRESENTATIONS

Air Traffic Control

Ron Bazman, FAA ATCT, briefly reviewed his background with safety, noise mitigation, and procedural development. Mr. Bazman explained the operations of Air Traffic Control. The following was noted:

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- The #1 responsibility is to provide safe, orderly, and expeditious flow of air traffic. Visual flight rules are used when cloud ceiling is over 1000' and visibility is three miles. Instrument flight rules are used otherwise.
 - Obstacles in the Burlington area include mountains, other aircraft, and antennas. Aircraft proceed visually at their discretion. There are instrument procedures and defined approach procedures. Guidance is given to move the aircraft for an approach to the airport on an easy slope. There is specific criteria for altitude to avoid the terrain. The criteria are designed for terrain, glide slope, ground based navigation, and satellite based navigation. Pilots know the procedure they will be on.
 - Burlington Airport is in a valley so aircraft trying to land come in low. The Burlington approach control radar shows the air space, aircraft approach and altitude. The FAA “owns” the airspace from the ground to 10,000 feet mean sea level.
 - Runway length, the number of the runway (based on the magnetic direction of the runway), and taxiway names are important information. Color of the stripes on the runway are mainly white, taxiways are yellow. Lights are blue on taxiways, green on the edges of runways, white on the sides, yellow for the last 200' and red at the end.
 - Factors affecting runway use include:
 - Wind – headwind of 30 knots, plane at 60 knots, the wings register 90 knots of airflow. Tailwind is subtracted from the speed of the plane. Pilots always try to land or takeoff into the wind.
 - Connective activity impacts getting into/out of the airport. Thunderstorms impact where aircraft go, for example.
 - Aircraft Performance and Power Settings – the more fuel and the more passengers, the slower the acceleration. The more power to accelerate, the more noise.
 - Accident on the runway, snow removal activity, maintenance work on or near the runway impact runway use. Small Cessna planes can still land if there is a mower in operation next to the runway, but large jets per Burlington Airport rules cannot land. Airport Certification Branch has different rules than Air Traffic Control which is always a struggle.
 - Demand for the runway due to the number of aircraft in operation impacts runway use.
 - Altitude and temperature at the airport and navigation limitation at the airport or on the aircraft impact runway use.
 - Formal noise mitigation procedures impact runway use.
 - Part 150 Study talks about climatology for the seasons. The 14 CFR Part 150 Update covers common sound levels, day-night average sound level (DNL), weather related effects (humidity, temperature, wind), distance related effects, noise/land use compatibility guidelines. The report shows how to measure and accommodate for noise with consideration of DNL contours, types of land use around the airport, runway use and procedures.

George Maille stated per FAA Part 91 the pilot has the final decision to use noise abatement department procedures. Ron Bazman said the pilot is always first responsible for the safety of the passengers. Mr. Maille asked if military aircraft are required to use noise abatement department procedures. Ron Bazman said he does not know if the military must use the procedures or not, but Air Traffic Control complies with procedure. Mr. Maille observed based on that Air Traffic Control influences incoming and departure paths. Mr. Bazman confirmed this.

Vermont Air National Guard

Lt. Col. Chris Tumilowicz stated he is in charge of the F-16 pilots and life support and intelligence personnel. Lt. Col. Tumilowicz reviewed ground operations with the F-16 aircraft, noting the following:

- From engine start to taxi is 20 minutes. The aircraft is in idle power by the hangars. The engines are run for five seconds at “test engine” and five seconds at “emergency power”. Taxi to takeoff is 20 minutes so the aircraft is on the ground with engines operating for 40 minutes. Takeoff is at either the north or south ends of the airport. Takeoff and landing speed is high with the F-16. There are two catch cables on the north and south side of the runway.
- Departure is either military power or after burner depending on the load on the jet, temperature, takeoff distance. Safety is the main factor. The two external fuel tanks each hold 2,200 pounds of fuel which requires after burner takeoff. If the jet is “clean” then military power takeoff is used.
- Pilots talk to Air Traffic Control at Burlington and Boston. Twenty second spacing is used for takeoffs. The closer the takeoffs with more aircraft the louder the noise. Spacing the takeoffs mitigates noise.
- After burning is turned off at 300 knots or at the airport boundary (typically 300 knots is reached before the airport boundary). Pilots follow the procedure to accelerate and climb to altitude. The jets are standardized in formation to avoid collisions.
- VANG has training air space around Saranac Lake/Lake Placid, Watertown, and Rome to the Canadian border, in New Hampshire and Maine.
- Preferred recovery is a tactical arrival to minimize noise. Ten miles out from the runway north or south at 10,000 feet the jets will idle to descend to the airport. The planes fly parallel to the runway, turn around and land. There is a delay pattern to avoid Winooski High School and UVM Medical Center. Staying at a higher altitude mitigates conflicts with smaller aircraft. Weather impacts dictate a lower approach or instrument landing (ILS).
- Nonstandard procedures include two groups per day leaving no earlier than 8:30 AM with takeoffs at 9:30 AM and 1 PM. With night training (typically done in winter because windows are closed) takeoffs are as soon as dark or half hour after official sunset. On drill weekends if flying on Sunday then takeoff is no earlier than Noon. Exceptions are deployments where there will be takeoffs after 10 PM or before 8:30 AM.

Vermont Army National Guard

Col. John “JJ” Johnson, Director of Aviation Vermont Army National Guard, gave a presentation on the rotary winged aircraft (helicopters, fixed wing), noting the following:

- The local flying area for the Army Guard is Canada and Watertown to the west, Maine to the east, Rhode Island and portions of Connecticut to the south.
- Maintenance test flight area is north of Burlington (Milton/Colchester along the shore of the lake). Camp Johnson and the training area in Jericho are other sites.
- Most of the helicopters are medivac configured Blackhawks and Dakotas. A significant amount of training is done with two pilots, a medic, and crew chief on board.
- Army Guard is constantly training and uses all airports in the local flying area. Operation is at 800’ and below at Camp Johnson. Helicopters will hover for up to an hour during training for crew coordination and hoist work for a mission.
- Ground operations from receipt of the mission to takeoff is 10 minutes. It is a half hour, start to finish. The majority of takeoffs/landings are from the ramp on the southern portion of the airport. The active runway is not used in order to expedite takeoff/arrivals. Flight path is generally southerly to northerly easterly with 90% visual. Instruments are used when necessary. Wind is critical. Takeoff will not be done downwind.
- Helicopters always takeoff from a hover. A rolling takeoff and landing can be done, but this is usually avoided so fodder is not blown onto the runway creating problems for fixed winged aircraft.

George Maille stated flying over residential areas is disturbing due to the low frequency sound generated. Col. Johnson said the aircraft tries to stay at altitude as long as possible and keep up speed. Once the engines are at “fly” the RPMs are constant. When the engines slow the noise get louder. George Maille asked if fixed wing or helicopters land first. Ron Bazman said it depends on air speed and traffic flow. Col. Johnson added the pilot gets permission to cross the active runway to get to the landing site on the ramp.

Jones Payne Group

Diane Carter, consultant from Jones Payne Group, discussed noise mitigation planning and implementation that will be used in the relocation effort of current homeowners. Ms. Carter noted the following:

- The Part 150 Study done in 2008 provided a noise exposure map and noise compatibility program. In 2013 the noise map was updated and in 2015 the map was finalized at the 2015 and 2020 contour. The 2020 contour will be used for planning.
- Under the current program the airport will acquire land and demolish the houses on the parcel. The airport received an FAA grant for \$16 million to cover 39 homes. The program is voluntary for the home owner. The plan will focus on land use compatibilities.
- There are 972 residential units affected in the 2020 area. The compatibility program will look at options available.
- The study will take 18 months to complete. After six months the FAA reviews the program.
- Items looked at in the study include:

- Whether to continue land acquisition and relocation or rezone the area.
- Sound insulation of houses (houses are not removed) after testing to determine the interior noise level to see if the threshold is met to qualify for sound insulation.
- Voluntary sales assistance where the airport through federal grants makes the sale whole for houses listed that do not receive fair market value offers. There are no relocation benefits with this option. If the house sells for fair market value the airport pays the real estate commission in exchange for the avigation easement. Avigation easements give advance notification of moving into an airport area.
- Purchase assurance where the airport buys the house and sound insulates then sells the house on the open market. There are no relocation benefits with this option.

3.0 QUESTIONS & ANSWERS

George Maille asked about the following:

1. Where the airport is in the process - Nic Longo said the program will not start until the federal grant is received. There are more houses impacted by the new DNL line so more federal money can be offered.
2. Information on the NCP - Nic Longo explained in the NCP checklist there is community outreach and meeting with the local municipal government to avoid creating isolated blocks of houses. With the sound insulation and purchase assistance programs there will still be humanization done and work with South Burlington staff on planning and zoning. Options will be offered to homeowners. Gene Richards added the airport wants to end the home purchase program and preserve the housing, but the FAA is mandating finishing the home purchase program before beginning the home insulation program. There are no guarantees with the FAA. The airport is doing a new plan to submit to the FAA. Doing the new plan will be a community process, but it will not be easy when the FAA wants to move in a different direction.
3. Noise insulation and noise acquisition programs under one airport plan - Nic Longo explained there is separate grant money for the NCP update and acquisition. [Mr. Maille opined the 65 DNL is the right threshold for taking.]
4. Additional concourse at the airport per the airport 2030 plan - Gene Richards said the growth projected by the airport is not happening, but the airport will continue to try to grow. There have been many improvements on the runway to mitigate noise.

Winooski Mayor, Seth Leonard, confirmed the NCP database is from the Part 150 information and asked:

1. If the grant is rolling, annual funding and whether the airport is prevented from accessing similar funds in the future - Nic Longo said the grant correlates to the parcels. Changes can change the application. Gene Richards said if there is a change at the airport then there will be a new noise map and within a year application for a grant. It will take approximately three years from a change of noise to having a new map and grant money.

2. If the previous investment is considered (i.e. homes already removed) - Gene Richards stated the grant is based on the number of houses affected. It is not known if there will be more houses or noise will go farther into Winooski or Williston. Nic Longo stated the planning process is significant. The airport meets annually with the FAA to earmark funds for the near future (approximately two years forward). The grant was awarded to the airport because of the number of houses inside the noise contour. Gene Richards said the hope is to have a partnership with the initiative and collaborate on the best model for the area.

South Burlington Planner, Paul Connor, asked the following:

1. When the program will begin and who the advisory committee members are - Nic Longo said the program will start once the grant is received (hopefully before September 30th) and the advisory committee is the people in attendance. The meetings are also open to the public.
2. First notification that properties on the north side of Kirby Road are included in the program (some of the houses were built three years ago as affordable units) and that the airport received the grant - Nic Longo stated if a house within the 75 DNL line does not qualify for insulation then an offer of acquisition is made. Gene Richards added the FAA said the airport as the facilitator must make the program available to the community. Participation in the program is voluntary.
3. Update on the reuse plan - Nic Longo said the noise reuse plan is an inventory of acquired parcels. There have been no changes. A second meeting and public hearing will be held.
4. Trigger for the update of the noise compatibility plan - Nic Longo said the noise compatibility plan is contingent upon receiving the federal grant money. The insulation program and acquisition program are accounted for in the current NCP, but the airport wanted to offer the sales assistance and purchase assurance programs so that is why the update was done.
5. Did the addition of the properties on Kirby Road trigger the NCP update - Nic Longo said the Kirby Road houses are under the existing NCP map. [Paul Connor observed the new map says the houses are in the 75 DNL and therefore eligible for acquisition.]

Helen Riehle, South Burlington City Council, asked:

1. If the airport gets a higher rating by the FAA for having a joint commercial/military airport - Gene Richards explained the grant is based on the number of houses affected by sound. Approximately 970 homes are affected by the 65 DNL. Burlington Airport is the #1 airport in New England and 3rd in the nation for the program.
2. If another application will be done with sound changes due to commercial flights and military flights - Gene Richards said if there is a significant change the map will be updated.
3. If a homeowner is precluded from buyout if their house qualified for noise mitigation and then there is an increase in the noise level - Gene Richards said that is a good question for the FAA. Typically when noise changes there is a new

number of houses that may qualify. If a house has been noise insulated and the noise level increases there is a threshold under which the house may qualify.

Carman Sargent asked if the school building is eligible for the program. Gene Richards said the FAA will decide. The airport has delivered the message from the airport and the residents, but there are no guarantees with the FAA. There is awareness of South Burlington's consideration of consolidating schools and the airport does not want to get involved in that issue, but will work with South Burlington on the noise issue. Carmen Sargent said she is offended by use of the word "sound" which sounds pleasant rather than saying "noise" which is what is interfering with the living area. Gene Richards said there will have to be agreement to disagree on that matter.

Pat Nowak, Airport Commission, explained the sound insulation/mitigation program cannot start until the acquisition piece is done and in the shortest period of time that is reasonable. The airport will communicate with people who potentially qualify for the program. The consultant will do due diligence and proceed once the decision to participate is made by the homeowner.

4.0 ADJOURNMENT

Next meeting: Mid-December 2016 (date to be announced).

With no further business and without objection the meeting was adjourned at 7 PM.

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