

(Draft) MINUTES OF YQNA MEETING #89 Tuesday January 18, 2022

Online Via ZOOM due to COVID-19 Pandemic (approximately 85 participants)

Hosted by Neal Colgrass, Chief Technical Officer

Chaired by Angelo Bertolas, Co-chair

1. **Angelo** introduced the meeting with a welcome to the YQNA's special guests **NaWalka Geeshy Meegwun, Marie Gaudet** and **Kenny Kirkwood** and thanked them for sharing their knowledge and insights about the lands that we inhabit.

2. **Neal** welcomed the participants and outlined the technical details of the Zoom event. All were muted except the chair and current speaker. Questions were posed by typing in the chat box or using the "raise your hand" key.

3. Land Acknowledgement

Kenny Kirkwood, a Juno award-winning Canadian musician (<https://www.kennykirkwood.com/>) has collaborated with Indigenous people on Turtle Island (the continent of North America) and worldwide in working towards reconciliation. Kenny Kirkwood graciously presented the land acknowledgement which can be viewed at:

acknowledgement<https://www.facebook.com/KennyKirkwoodMusic/videos/land-acknowledgement-reconciliation/492506641942810/>

4. Moving Towards Understanding

NaWalka Geeshy Meegwun - Longfeather (aka Lyndon George) is currently the Indigenous Justice Coordinator at the Hamilton Community Legal Clinic. He is a member of the Chippewas of Kettle and Stony Point First Nations and grew up in his reserve community. He has worked with Indigenous people all his life both on and off the reserve.

NaWalka Geeshy Meegwun is Anishinaabe Ojokwe or Anishinaabe/Indigenous, one of many terms for members of the Two-Spirit community. He is a survivor of the Federal Indian Day School system.

NaWalka Geeshy Meegwun shared a central message about names, the meaning of family and the indigenous understanding of gender and gender identity. In the indigenous culture for example, names cannot be shortened because they cease to have the same meaning and therefore cease to represent who the person is.

Names come with specific responsibilities. For example, NaWalka Geeshy Meegwun's name requires him to be the voice of those who cannot speak. These types of constructs are recognized and appreciated in a way that is unfamiliar to Eurocentric cultures and this has led to oppressive policies and subordination of the Indigenous people and their culture.

The Indian Act is the prime tool of oppression within the Canadian legal system, notably in its silence on two spirited people. In this territory and across this land there were indigenous legal principles and applications that had been in place for thousands of years. They are inclusive of all people.

The Calls for Justice included in The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls (MMIWG) are far reaching and complex. The calls to justice and calls to action are linked. The calls to justice importantly address Two-Spirited people. Homophobia is not an indigenous concept.

NaWalka Geeshy Meegwun is working to re-establish Indigenous legal principles using more indigenous courts and child welfare systems - systems that will replace the laws of Canada. He supports the kinship and clan agreements that are family focussed and exist to keep indigenous children in their communities.

Education of non-indigenous people is key, and the use of land acknowledgements is a call to action to build bridges of understanding. NaWalka Geeshy Meegwun's encouraged participants to look at nativeland.ca.

Marie Gaudet is Anishinaabe, Turtle Clan, and a member of the Wikwemikong First Nation of Manitoulin Island. She is a valued educator and is well-known for her work in cultural development and programming.

Marie talked about water as life-sustaining, and as a creative force. She noted that Anishinaabe believe that water is alive - our earth's lifeblood, and that all bodies of water are her veins. Without water, we simply would cease to exist. Water is life. Indeed, our early tears are our first song.

Marie Gaudet sang The Water Song a version of which can be heard at <https://www.youtube.com/watch?v=ks5IlzYX3t8>

Water takes a 7year journey to the ocean where it cleans itself and then returns to the lakes and rivers so that we can have clean drinking waters. Water is medicine. If we keep our bodies and minds as clear as water, we will be healed. Giving thanks for water is central to the indigenous culture.

Kenny Kirkwood Concluding Comments

The National Inquiry includes 94 'calls for action' to change Canada's relationship with its indigenous people. Kenny Kirkwood asks us to, at a minimum live from our hearts. Sharing back, walking together as cousins will enrich all of our lives.

3. Bushra Mir - Joe Cressey's Office

Sale of 249 Queens Quay W. The City Council approved negotiating the sale of 249 Queens Quay W. with the current owner of the Radisson, the Silver Hotel Group in October 2021. The revenue from that transaction will go to protecting 'at risk' affordable rental housing structures and to acquire new affordable housing. The purchaser will be bound by the current zoning permissions. The agreement does not allow for any zoning amendments including height and density.

Electric Vehicles

There has been an increase in the usage of e-scooters and other electric vehicles in the city. E-scooters are currently restricted for use on private property. The City will be working with the police and Municipal Licensing and Standards to develop regulations for the waterfront and across the city.

Additional Police Presence

During the summer of 2021 the YQNA supported the Waterfront BIA and Harbourfront Centre in a request for more police presence through the Neighbourhood Community Officer Program. Various programs were launched to encourage safer cycling / use of the Martin Goodman Trail. The city will continue to advocate for greater policing along the waterfront.

Convention Centre Redevelopment is halted. City staff are continuing to develop a proposal for the property. Joe Cressey's office will provide updates as they become available.

Queens Quay East LRT

The design update and business case are expected to be presented at the March Executive Committee Meeting and the April City Council meeting.

4. Provincial Update - Chris Glover MPP

- Chris extended thanks to Hal Beck, Brian Iler and Angelo Bertolas for the work that they have done advocating for thoughtful planning regarding the future of Billy Bishop airport. He commented that, if not for vocal community advocacy, Billy Bishop would be a more active airport than it currently is.
- Spadina Fort York Community Care ran successful food drives before Christmas. Chris helped distribute gifts to over 500 families.
- Schools opened January 18th. The NDP is opposed to the decision to stop testing and tracing and is concerned that the government is consistently in reactive mode, especially in terms of HEPA filters and masks.
- Small business is struggling. NDP is advocating for a simpler granting process...
- 4th doses for people who are immunosuppressed have been rolled out.
- The Ontario government's pre-budget consultation is underway, and people are encouraged to offer their insights at <https://www.ontario.ca/page/2022-budget-consultations>

5. Federal Update - Kevin Vuong MP

Kevin's office has continued community consultations on a number of issues and interests including:

- Canada Lands
- Billy Bishop airport, and specifically the opportunities that can be pursued to mitigate the impact of the airport in both the short and long-term. The slots issue, the NEF (Noise Exposure Forecast) and the Tri-partite agreement are all being monitored.
- Community safety has been raised in the house and with the responsible minister alongside 14 division, 51 and 52 division police precincts.
- Improving environmental standards in the harbour is a priority. 'Seabins,' for example, are being used, but they are not being maintained.
- COVID support. Cultural and arts organizations, entertainment tourism, and small businesses continue to struggle. Kevin will bring the concerns of these groups about the challenges and deficiencies of some of the COVID programs to an all-party caucus to advocate for support that works for these constituents.

Comment: Angelo Bertolas encouraged Kevin to represent the air and noise pollution concerns of his constituents on the Waterfront in Ottawa. The Billy Bishop Airport is a significant source of air and noise pollution in the city and all plans for expansion or change at the airport need to be evaluated in the context of the Federal governments commitment to reducing Canada's overall carbon footprint. Kevin indicated that this is an important priority that he will continue to pursue.

6. Brian Iler - Spokesperson for Parks not Planes, <https://www.parksnotplanes.com/>

Parks not Planes is seeking to establish a clean, green waterfront through the conversion of the 215 acres currently occupied by the Billy Bishop airport to a park.

Rationale

- Reducing air travel is one of the most effective ways to reduce our carbon footprint. Aviation is the 'filthiest' form of transportation and the only form that cannot be electrified. Short haul flights - the only type of flights, out of Billy Bishop airport, are the most problematic.

- The airport is not financially viable. Even before the pandemic, Porter was losing money – reported at \$40M in 2018, and \$30M in 2019. City Express operated STOL aircraft from the Island Airport from 1984, but ceased operating in 1991, when it became bankrupt. Air Ontario commenced its STOL service from the Airport in 1990, but also failed to find enough business.
- The economic benefits of the Billy Bishop airport to Toronto, recently presented by Nieuport, the owner of the terminal, to the Economic and Community Development Committee at the City of Toronto, are unconvincing. So are Ports Toronto's estimates of a 60% increase in passenger traffic. University of Toronto professor Sandford Borins' perspective on the airports contribution to the City stands in contrast to these estimates and can be found at <http://www.sandfordborins.com/2022/01/03/the-last-thing-toronto-needs-now/>
- The Tripartite Agreement, governing the airport lands, ends on June 30, 2033. There is no right to renew and to date, the city has shown no interest in renewing the agreement.
- The shortage of park space in the downtown core is a growing challenge that must be addressed. 300,000 people live in the downtown core and the waterfront is alarmingly overcrowded during the summer.
- The Federal Government has been clear about its mandate to reduce carbon emissions and to increase green space and parks. The Prime Minister reaffirmed that commitment to his Minister of Transport and his Minister of Environment and climate change with mandate letters in late 2021. Parks not Planes has submitted a letter in support of the Federal mandates.

The Way Forward

- BQNA, YQNA, Community Air and some Island residents have formed an advocacy group 'Parks not Planes'
- The short-term need is to reduce the number of flights from the waterfront, discourage any further investment in airport infrastructure, and ensure that cleaner transportation alternatives are available such as electrified high frequency rail lines.
- Longer term, Parks not Planes envisages a park 6 kilometers in length, stretching from the Western Gap to the Eastern Gap. It will be surrounded by water with inlets and lagoons. Hanlan's Beach will stretch from Gibraltar Point to the Western Gap, the longest beach in the GTA. 'This could be the iconic national urban park amongst the fifteen national urban parks, envisaged by the Federal Government.'

The Benefits

- All Torontonians will benefit from the conversion. Climate change is a major threat to everyone on the planet. By reducing our greenhouse gas emissions and changing our environment from a reliance on things like airports and planes, by expanding parks with trees and clean water, we will be contributing to the health and well-being of everyone.

Slots

- Ports Toronto plans to increase to 246 from 202 in the summer of 2022
- They forecast that 2.8 million passengers will use BBCTA in 2023, up 60% from 2019. That is significantly more than the modest increase anticipated by the Master Plan. Ports Toronto has no plans to monitor noise, mitigate air quality impacts and avoid congestion.

•
Please add your thoughts to the Ministry of Environment and Climate Change survey and let your local Liberal M.P. know that they should shut down the airport.

Everyone is encouraged to attend the 'Waterfront for All' Speaker series in March and April where successful downtown airport conversions will be showcased. Michael Brodsky from Santa Monica, and Tom Bessai, professor of architecture, U of T, will be featured speakers at upcoming meetings. <https://www.waterfrontforall.ca/events>

Comment: Angelo Bertolas asked whether new lower carbon fuels are likely to become available in time to have a meaningful impact on carbon emissions. Brian Iler responded that there currently are no technologies that represent a genuine path to decarbonization. Hydrogen fuel, biofuels, synthetic fuels, amongst others are currently being researched and tested. The challenge is to find an economic 'green' fuel.

Angelo Bertolas commented that economic benefits are easily transferable to Pearson according to Professor Borens. Is that something Parks not Planes supports? Brian Iler, stated that while this is an understudied idea, it only makes sense that people would continue to fly into Toronto via Pearson and the pilots and admin jobs would transfer to that airport, if Billy Bishop were to close.

7. Hal Beck - Neighbourhood Representative on CLC

RESA - Runway Extension Safety will cost \$75 million and must be completed in the next 5 years. A payback on that investment will be challenging unless the Tri-Partite agreement is extended. The Port Authority will require City approval to expand the footprint of the airport. Additionally, a number of studies will be required. There is a need to ensure that these studies are robust and include community feedback. Joe Cressey's replacement will be important in ensuring that the right studies and consultations occur.

RFI - 'Request for Interest' to manage the airport is still under review.

Nieuport Economic Study - BQNA hosted a meeting on January 12th, where Chief Operating Officer, Jennifer Quinn, presented an economic impact report. The report concluded that, through continued planned investment, Toronto can expect meaningful economic benefits from Billy Bishop airport. The results can be found at <https://www.nieuport.com/news/independent-analysis-highlight>

Jennifer indicated that Nieuport had undertaken a further survey involving 12 different ridings and 1200 respondents. Preliminary finding suggests that there is strong support for the airport. A request was made by BQNA to include the questionnaire when the results were distributed.

To reduce the carbon footprint of the airport hydrogen fuel is being investigated and electrically powered buses are being introduced. Routes that are currently flying empty could possibly be reviewed to determine whether there is an opportunity to combine and reduce flights to mitigate some of the climate impacts. Passenger counts (enplaned and deplaned) are currently around 30% of what they were pre-pandemic. But 40 to 50% of the planes continue to be in the air. It will take until 2025 to return to pre-pandemic levels

Nieuport noted that a noise impact study fell under Ports Toronto's jurisdiction

Slots

This summer 2022, there is a plan to phase in an additional 44 slots. The increase by day of the week is noted below:

Monday to Friday - 202 to 224

Saturdays - 109 to 129

Sundays -173 to 193

Air Quality Study

The study engages the Bathurst Quay Neighbourhood Association (BQNA), the City of Toronto Planning and Public Health Departments, PortsToronto, and a diverse team of researchers at the University of Toronto and the Southern Ontario Center for Atmospheric Aerosol Research (SOCAAR).

The partnership will generate three outcomes:

1. an assessment of air pollution exposure across the Neighbourhood and the perspectives of its residents,
2. identification of the main sources of air pollution, and
3. an evaluation of policy scenarios for air pollution reduction.

A meeting to present the results will be held:

Date: Thursday, January 27, 2022

Time: 7-8:30PM

To register for the virtual meeting visit the Eventbrite page.

Waltzing Matilda is launching Connect Airlines in Q1 2022. It will service destinations to the U.S. within a 2 ½ hour range. Universal Hydrogen Co and Connect Airlines have signed a letter of intent for new green-energy propulsion to enable Connect to become the first zero-emission US-based airline. Both parties will introduce true-zero regional emission aircraft into service in North America starting in 2025.

NEF (Noise Exposure Forecast) is the only tool the City has to impact the number of slots at Billy Bishop airport. The NEF contour study is done by Transport Canada.

Hal provided quick highlights of the following 7 NEF slot calculation issues, which he presented to the Port Authority in a slots meeting on Jan 13, 2022. The issues are detailed in the Appendix to the minutes.

1. Incorrect interpretation of modelled flight numbers
2. Incorrect ground noise attenuation assumptions
3. Some 'fly by' noise energy is being omitted from the calculation
4. Urban terrain noise modelling not completed
5. NEF model scale was not considered
6. Airport ground site noise not considered
7. NEF compliance studies not completed to confirm flight numbers

Conclusion - The above key issues list is not exhaustive. It is separate from matters related to outstanding certification requirements for a noise impact assessment study of the airport. In the absence of report sealed by a licensed professional noise engineer, public health, safety, and well-being have, to date, not yet been assured by any of the airport decision makers at Transport Canada, City of Toronto, and the Port Authority.

8. Carolyn Johnson - 200 Queens Quay West

On January 12, 2021, the City held a (virtual) community consultation meeting about 200 Queens Quay West. At that time the 8-storey parking garage was going to be demolished and replaced by a 12-storey podium on much the same footprint, topped by two residential condominium towers of 41 and 71 storeys. Vehicular access was to be taken from the existing driveways serving the Waterclub complex.

Now we are learning that the developers, Diamondcorp and Lifetime Developments, have responded to input from City staff, the Waterfront Design Review Panel, and the community, to come up with a revised proposal.



As the rendering shows, the idea now is for one tower towards the east end of the site. The height is 59 storeys on a 5-storey podium, yielding 1002 units and 400 sq m of commercial space close to Lower Simcoe Street. 10% of the units are still to be affordable. The green space at the intersection of Lower Simcoe and Harbour Streets is increased slightly to 500 sq m and is now intended to be a public park rather than publicly accessible private land.

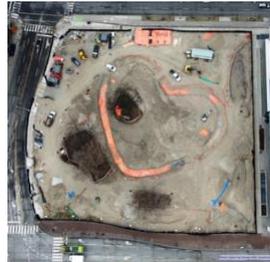
The access for parking, loading and drop-off is to be from Harbour Street. They are planning for 340 parking spots on 4 levels underground, 150 for the residents and 190 for paying customers.

Parking and storage are proposed for 1003 bicycles.

A second community information meeting is to be held on February 9, 2022 via WebEx.

Love Park

- The aerial view below shows the status of Love Park. Of note, the Catalpa within the pond has been protected.
- A Construction Liaison Committee meeting is planned for April..



9. BIA - Tim Kokur

- Firepits at Sugar Beach and the planned Sugar Shack have been cancelled again this year.
- A collaboration with the City of Toronto, the Waterfront Business Improvement Area, the Toronto Downtown West Business Improvement Area, and The Bentway, the Waterfront ReConnect Design Competition is underway and will explore the potential for this obstacle to be reimagined as a vital point of connection.

10. Martin Keneally - Harbourfront

- The solar panel installation is complete at 231 and 235 Queens Quay
- The temporary rink at the Concert Stage is open and has been very popular
- The City Council did not support Reptilia's request for a by-law change for 245 Queens Quay. Harbourfront is looking at other prospective tenants
- The Harbourfront Concert Stage will be available for use during the summer of 2022
- The deck and pond at Harbourfront are being renewed - 'Harbourfront Plaza' will open January 2023 with a new rink

11. Angelo Bertolas - Closing Comments

- The fireworks display on New Year's Eve was really well done. YQNA has had conversations with City of Toronto about traffic management for future events.
- Angelo reminded participants that YQNA is a volunteer association that does not charge a membership fee and relies on people's financial support. He directed participants to the YQNA website at yqna.ca if they wished to donate.
- Meeting Minutes are available on the YQNA website

Appendix

Hal Beck, P.Eng. January 11th, 2022

Speaking Notes for the Port Authority meeting on 'slots,' Jan 13, 2022.

There are a few noise engineering issues related to number of flights being calculated which were not documented in the 2019 Master Plan nor in any other studies for some reason. The flight numbers are being calculated solely based on NEF software output, so I focussed the following issues list on NEF modelling errors and omissions only. Please forward these issues to the noise engineers so they can speak to next steps and timing regarding their slot reduction calculations.

There have been systemic errors and omissions in applying the NEF noise engineering principles over the years, leading to excessive flight numbers having been calculated. It has not been helpful that the five noise engineering consultants retained separately by the City and Port Authority over the years since 2008, who presented noise capacity material to the public, confirmed they were not intimately familiar with the NEF noise energy calculation formula, nor underlying EPNL calculation methodology, when making their presentations. It is also not reasonable that any of the airport decision makers and policy makers should be assumed to have detailed working knowledge of NEF noise engineering calculations.

1. Incorrect interpretation of modelled flight numbers

The NEF calculation methodology calculates the theoretical total number of flights possible for a 24-hour operation, not the 16.25 operating hours available, resulting in excessive flight numbers being proposed during operating hours.

To recap noise calculation methodology, the NEF formula uses the decibel-seconds of noise energy of every modelled flyby (normalized over 10 seconds), and sums these decibels over 24 hours, to calculate an average decibel per hour ie. an NEF value (NEFdB) for the given location. The resulting NEF values are then plotted on the map, and contours of equal value are compared to the geographic location of the control contour noise envelop to confirm if the modelled flight scenario is within the noise envelop.

Airport decision makers have not documented that they have been informed by their noise engineers that the total modelled flights calculated using the NEF formula are for 24 hours of continuous airport activity. Per the NEF formula calculation methodology, the modelled total number of flights per day needs to be pro-rated (lowered) over the fewer number of hours the airport is actually approved for operation. For example, regarding commercial flights, the 202 slots modelled over 24 hours multiplied by 16.25/24 equals 136 slots during airport operating hours. Furthermore, the NEF calculation methodology assumes the total EPNL noise energy from the total modelled flybys is equally distributed over each hour over the 24-hour period, not loaded up in specific hours. No specifics related to these flight calculations were appended to the Master Plan or otherwise to support flight numbers.

2. Incorrect ground noise attenuation assumptions

NEF software includes a ground noise attenuation algorithm which assumes modelled fly by noise is being absorbed by the lake surface, resulting in excess noise capacity assumptions and excessive flight volumes proposed.

The algorithm calculates an increasing volume of noise being absorbed by the ground surface during a flyby noise event when the plane is closer to the horizon or ground surface relative to a viewer location. The modelled NEF values have been lowered accordingly. This assumed noise reduction due to ground surface attenuation does not apply to the water surfaces of Toronto waterfront. This issue is especially important at the Island Airport where planes are accelerating or decelerating from runway ends that are surrounded by Lake Ontario in front of residential towers. The lower noise values thus being modelled for each flyby (before being plotted on the noise map for comparison to the official noise control contour), results in additional noise capacity inside the control contour limit than is otherwise possible in real life. This leads to additional excessive flight numbers being proposed or assumed potentially possible.

Also related to this are the flight reductions that need to be calculated with respect to the anticipatable increased noise propagation (not attenuation) in the marine environment of the modelled NEF noise. The NEF software was designed to produce output for use on stereotypical suburban subdivisions on tableland, and explicitly does not consider reflective water surfaces or inversions. Airport decision makers have to date assumed the NEF noise maps for the Island Airport already include for Lake Ontario noise effects and have not documented that they have been informed otherwise by their noise engineers.

3. Flyby noise energy omitted from NEF calculations

The established NEF calculation procedure (more specifically the underlying EPNL) is excluding some of the fly by noise energy of louder planes (eg. Q400) from the NEF analysis, resulting in noise capacity exceedances of the 25 NEFdB zoning standard.

As detailed in the EPNL calculation procedure, the NEF noise maps only show that portion of modelled noise energy (decibel-seconds) which occurs within the duration of time in which the top 10 decibels of a given flyby are emitted. If there is any remaining fly by noise energy modelled to occur outside this defined window of time, it is automatically excluded from the NEF calculation. To illustrate this important issue (ignoring the typical PNdb to dBA conversion), the maximum fly by noise level of a Q400 aircraft in the harbourfront is sometimes 73dBA. Only the loudest portion of the noise energy that the Q400 emits during a fly by (occurring immediately before and after the maximum decibel), is included for in the NEF calculation (ie. the noise during the fly by from 63dBA to the 73dBA max, then back down to 63 dBA is included in NEF calculation). Whereas the balance of the noise energy the same Q400 emits during the same fly by, before and after the flyby peak (between 63dBA to below the background sound level of roughly 50dBA), is not accounted for in the modelled results.

Airport decision makers to date have assumed the NEF contour maps account for the “total noise exposure”. This is also stated in Transport Canada’s TP1247 ‘Land Use in the Vicinity of Airports’ which is the document intended to guide them. Airport decision makers have not documented that they have been informed otherwise by their noise engineers.

Based on the EPNL calculation procedure, the NEF formula was envisioned for application where the maximum decibel in any modelled fly by would be within 10 decibels of the background sound level for a given location, in order for the calculated NEF values to contain the “total noise exposure”. When a flight mix contains louder aircraft exceeding this 10 dB limit, where it is therefore known that some of their modelled fly by noise energy will automatically being omitted through typical EPNL calculation, conditions exist for the NEF software output to produce a false or misleading 25 NEF contour

compliance. In this instance, even though the NEF model output is plotted to show compliance with the 25 NEF noise envelop, the 25 NEFdB per hour fly by noise limit being relied upon by the previously zoned residential lands will be exceeded by the noise omitted from the calculations. The total noise energy for the hour in which the high decibel aircraft will be flying must be checked to ensure the flight mix and flight numbers proposed for that hour will still meet the overall 25 NEFdB per hour noise compliance standard. Such careful assessment of the fly by noise energy that was omitted from the NEF analysis was not appended to the Master Plan to support the number of flights calculated in each hour. Airport decision makers have not documented that they have been informed by their noise engineers of this fundamental noise engineering check with respect to Q400 at Island Airport.

The NEF model output is supported by a logarithmic formula containing the terms: $EPNL = PNL_{TM} + D$. The Master Plan should have a tabulation of these terms for each of the modelled aircraft at the three ICAO reference locations (ie. lateral, takeoff and approach). From a community perspective, the key aircraft whose values need to be highlighted are those for the Q400 aircraft.

4. Terrain noise modelling not completed

The typical NEF modelling process was designed to model noise at ground surface elevations only, and not at the various elevations of 50 storey residential towers constructed 500m from the flightpath outside of the official noise envelop. Urban terrain modelling details have not been made available. Airport decision makers have not documented if they have been informed by their noise engineers that these matters need to be reviewed when calculating proposed flight numbers so that they address the 25 NEF noise standard re exterior walls of residential buildings.

5. NEF model scale not considered

There are important considerations when applying the typical NEF software process to the small Island Airport site. The NEF methodology (more specifically the underlying EPNL) was envisioned, designed, and tested empirically to model noise at ground surface elevations, and primarily for situations where the altitude of the observed aircraft is above 500' to 2,000' ie. not when the aircraft is at lower altitudes (below 350' or 35 storeys) or within a 10 second proximity of the end of runway. Also, given that NEF modelling typically generates 25 NEF contour lines for residential zoning that extend 3km or farther away from airports, the NEF software outputs are typically mapped at a larger 1:50,000 scale, exceeding the scale of the Island Airport. Similarly, the ICAO lateral certification point located 450m perpendicular to runway centerline is typically well inside the residential zoning contour line and not outside of it as at Island Airport. The Airport decision makers have not documented if they have been informed by their noise engineers of the above matters (affecting public health, safety, and well-being), with respect to confirming the noise studies required to support the necessary flight number reductions.

6. Airport site ground noise resulting from NEF flight numbers not considered

The noise roar from the airport grounds due to the number of modelled flights exceeds site noise capacity.

Airport decision makers have to date assumed that stationary source noise (eg. the ground roar resulting from flight activities) is included for in the NEF noise contour mapping. This analysis requirement might sometimes be forgotten by technologists when modelling NEF scenarios, as the residential zoning limit is normally established much farther away from the airport, over which distance

the ground roar from airport site may be otherwise assumed to have dissipated. Reductions to flight numbers need to be calculated to contain the on-site ground roar, so that the average hour noise levels meet the provincial stationary source noise limits. The entire waterfront tower corridor has been approved and constructed to meet those limits. The initial residential buildings in harbourfront were planned by a federal development agency to meet the stationary source noise limit requirements, and bedrooms were subsequently constructed facing the airport without noise protection nor central air conditioning as a result. Airport decision makers have not documented that they have been informed by their noise engineers that public health, safety, and well-being are affected in this regard when excessive flight numbers are not meeting the federal or provincial residential NEF standards.

7. NEF compliance studies not yet completed to confirm flight numbers

Per 1996 NEF Validation Study, which confirmed the NEF process for Canada, the NEF software modelling work needs to be supplemented with single fly by event analyses to ensure the 25 NEF noise standard is met at small footprint airports like the Island Airport. The NEF modelling software was designed for a continuous noise environment such as when there are two or more descents and/or ascents taking place simultaneously. The Island Airport site is primarily dominated by single fly by noise events, which have never been studied to confirm 25 NEFdB average hour noise compliance at Island Airport. Airport decision makers have not documented that they have been informed by their noise engineers of this study requirement to confirm flight numbers.

Conclusion

The above key issues list is not exhaustive. It is separate from matters related to outstanding certification requirements for a noise impact assessment study of the airport. In the absence of report sealed by a licensed professional noise engineer, public health, safety, and well-being have to date not yet been assured by any of the airport decision makers at Transport Canada, City of Toronto, and the Port Authority.